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Master's Thesis

**MANAGEMENT OF DEPRESSIVE DISORDERS IN ELDERLY
PATIENTS**

Master of Science in Nursing

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ABSTRACT

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Depression is the most common mental disorder in elderly people. The average prevalence of depression in the elderly is 12.3%, increasing progressively with deterioration of somatic status and disability. The aim of this study is to investigate the current issues of diagnosis and treatment of depression in elderly people, to conduct a study of the causes and symptoms of depressive mental disorders in elderly patients as factors that define the characteristic features of management of depressive disorders in elderly patients. The following special methods have been used: clinical examination and history collection, pathopsychological assessment, examination by a neurologist and internist, laboratory and instrumental examination. For a preliminary assessment for the presence of depressive disorders in the patients, we used Geriatric Depression Scale (GDS).

In elderly patients with depression often have such types of disorders as dysthymia, mixed anxious depressive disorder, atypical depression and seasonal depressive disorder. This clinical research shows the characteristic features of depression in elderly neurological patients and the principles of its therapy. Adequate management of the underlying neurological disease, the use of effective and safe antidepressants combined with neurotrophic therapy allows for an effective control of depression in the elderly neurological patients. The author has defined the principles for organization of medico-social assistance for elderly patients with depression and somatic disease.

Key words: elderly patients, depressive disorders, management, medico-social assistance.

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INTRODUCTION

The relevance of the study. The problem of diagnosis [9, 18, 19, 20] and treatment of depression [1, 4, 6, 27, 45] in elderly people [2, 28, 29, 32, 40] is one of the most important problems in this patient population. Depression is more recently regarded as one of the most prevalent disorders [23, 42] found in general medical practice. Depression is the fourth leading cause of morbidity and disability [19]. It is predicted that by 2030 depressive disorders will rank second in the integrated assessment of global burden of disease [17, 45, 46, 47].

Depression is the most common mental disorder in elderly people [2, 28, 40]. The average prevalence of depression in the elderly is 12.3%, increasing progressively with deterioration of somatic status [17, 45] and disability. Older women suffer from depression twice as often as men [20, 23]; however, older men with depression have the highest risk of completed suicide [36]. There is a scientifically substantiated opinion that depression complicates the rehabilitation process in and compromises the treatment outcomes, prognosis and course of somatic disease [2, 5, 24, 35, 37, 44], that depression is a risk factor of dementia and increases the risk for suicidal behavior [36].

Age is leading to modification of clinical presentation of depression in the elderly [28, 32]. The Geriatric Depression Scale is used for instant diagnosis of depression in the elderly. [34]. Important considerations include lifestyle [25], stress [39], unemployment [8], inflammatory disease [35, 37], malignancies [2, 24], cardiovascular disease [7], long-term mobility impairment [44] and chronic pain [5]. The treatment of depressive disorders is based on pharmacotherapy [1, 13, 14, 21, 22], mental health education programs for patients [26, 29, 30, 32] and their relatives, as well as on psychotherapy and psychological correction [30, 45].

The selection of antidepressants [1] for the management of depressive disorders in the elderly [28, 32] should be guided by the principles of efficacy and safety. Selective serotonin reuptake inhibitors have a proven safety and

efficacy profile compared to other pharmacological classes of antidepressants. Many of them have high performance measures and remission rates, which is an optimal parameter for prevention of recurrences [1], making them drugs of choice for treatment of depression in elderly patients [4, 9, 26].

The nursing personnel [11], as well as the physicians [10], are assigned the task of managing mental disorders in elderly patients [3], depression in particular; therefore, scientific research in this area is relevant and requires medical and social support.

The aim of the study is to investigate the current issues of diagnosis and treatment of depression in elderly people, to conduct a study of the causes and symptoms of depressive mental disorders in elderly patients as factors that define the characteristic features of management of depressive disorders in elderly patients.

Study objectives.

1. To study the prevalence of depression among the elderly at a local medical institution. Therefore, this study involves depressed elderly patients with various surgical and therapeutic, including neurological, diseases, who receive outpatient or inpatient medical care. Such approach is extremely important for medical staff.
2. To conduct a clinical research study of causes and symptoms of depressive mental disorders in elderly patients.
3. To conduct a study of specific features of various types of depression and the incidence of their manifestations in the elderly.
4. To study the characteristic features of depression in elderly neurological patients and the principles of its therapy.
5. To define the principles for organization of medico-social assistance for elderly patients with depression and somatic disease.

The object of the study. Elderly patients with depression.

The subject of research. Depressive disorders in elderly patients and the specific aspects of management of depressive disorders in elderly patients.

The methods of study: patients were diagnosed with the presence or absence of the main and additional signs of depression; the following special methods have been used: clinical examination and history collection, pathopsychological assessment, examination by a neurologist and internist, laboratory and instrumental examination. For a preliminary assessment for the presence of depressive disorders in the patients, we used Geriatric Depression Scale (GDS; by Sheikh JI and Yesavage JA). Our research study has used the following general clinical assessments: history of present disease and health history, observation, objective examination, general health assessment, collection of information about the main complaints, scientific methods of comparison and systemic analysis, and statistical methods.

The scientific and practical value of the study. The authors have studied the problems of diagnosis of depression in the elderly, and conducted a clinical research study of causes and symptoms of depressive mental disorders in elderly patients, which allowed determining the number and percentage of females and males with depression, as well as the number of patients with various factors for development of depressive disorders in an older age; the authors have conducted a study of specific features of various types of depression and the incidence of its manifestations in the elderly, which has demonstrated that the elderly patients with depression, whom we assessed in this research study were predominantly found to have such types of depression as dysthymia, mixed anxious depressive disorder, atypical depression and seasonal depressive disorder; the authors have investigated the specific aspects of depression in elderly neurological patients and the principles of its therapy, as well as defined the principles for organization of medico-social assistance for elderly patients with depression and somatic disease.

CHAPTER 1

THE PROBLEM OF DIAGNOSIS AND TREATMENT OF DEPRESSION IN THE ELDERLY (REVIEW OF LITERATURE)

Depressive disorder is the most common mental disease in the older people [12, 22, 31]. It has a negative impact on quality of life [44], greatly increases disability as a result of a physical disorder and is the leading cause of suicide among the elderly [36]. It is also an independent predictor of mortality. Although there are effective treatments [22, 30, 45], depression is poorly diagnosed and often not treated optimally.

Depression in the elderly is one of the most common mental disorders seen in general medical practice in this age group of patients. As many as 80% patients with depression are being treated within the general somatic health network, and only 5% of these patients are treated by psychiatrists. In 90% of the cases, the nurse [11] and the general practitioner [10] encounter “low-profile”, atypical and masked forms of depression, with typical depressions accounting for only 10% of the cases [12, 31].

Depression is the fourth leading cause of illness and disability, one of the main reasons for low quality of life [44] and social functioning, it is accompanied by fatal consequences in the form of suicide, and in terms of loss of years of full-fledged life anxiety-depressive disorders are ahead of all other mental illnesses [23, 42].

According to predictions of the World Health Organization (WHO), by 2030 depressive disorders will take the second place after coronary heart disease in the integrated assessment of global burden of disease [46, 47].

Depression is the most common mental disorder in elderly people [2, 40]. According to European studies, the average prevalence of depression in the elderly accounts for 12.3% [46]. In this age group, depressive states have a distinctive trend towards recurrent or chronic, protracted course.

The prevalence of depression is progressively increasing with deterioration of the elderly patient's somatic status and his/her disability (increased dependency on other people) [17, 45]. According to the WHO, depressive symptoms are documented in 40% of older patients seeking medical attention in connection with various disease [46, 47]. Thus, the prevalence of depression in somatic elderly patients reaches 22–33 % [2, 35, 38, 39], which is comparable to the prevalence of hypertension.

In severe somatic disease, this parameter is increased to 60%. According to the WHO Regional Office for Europe [46, 47], the prevalence of major depressive disorder in the region involves 33% of people with cancer, 29% with hypertension and 27% with diabetes.

There are also gender-specific features of depression [20, 33] in patients of this age group. Females are twice more likely to have depression than males; in females, depression more frequently develops in the age of 50–60 years, while in males it develops in the age of 55–65 years. Older males with depression are the likeliest patient population to commit completed suicide [36].

Depression affects the course of other disease, for example:

- it complicates the process of rehabilitation and deteriorates therapeutic outcomes, prognosis and course of somatic disease [7, 9];
- depression is the risk factor for dementia [40];
- it increases the risk of death, including death as a result of suicide;
- almost half of the elderly and senile suicidal subjects had disability associated with a somatic or neurological condition [38, 39];
- the proportion of suicidal subjects reaching 60 years of age is 17 times higher than that of 25–30 year-old suicidal subjects [36].

Diagnosis of depression in the older people has its challenges [2, 18, 19, 20]; these difficulties occur for a number of reasons, such as: special clinical aspects of depression in an older age; depression-imitating adverse effects of

medications; the need to differentiate the symptoms of depression from the symptoms of somatic disease.

The age may activate some symptoms of depression and suppress others, leading to modification of clinical presentation of depression in elderly people [12, 22, 31].

The special clinical aspects of depression in an older age:

- depressive symptoms are often perceived as signs of normal aging;
- older people rarely complain of bad mood and sadness; they more frequently complain of poor physical condition, insomnia, memory impairment and loss of appetite;
- quite frequently, there is anxiety, grief, fear and hypochondriacal/anxiety-delusional syndromes;
- affective changes are accompanied by apathy, lethargy, discontent, irritability, peevishness, a feeling of undeserved resentment, etc.;
- the predominant signs include asthenic depression with hyperesthesia, irritable weakness, increased exhaustion, tearfulness and faint-heartedness;
- sleep disorders: predominant patterns include disturbed night sleep and waking up early with feeling unwell in the morning;
- cognitive impairment is observed, such as poor mental alertness with absent-mindedness, forgetfulness and inability to focus;
- significant autonomic symptoms, such as tinnitus, headache and dizziness.

For instant diagnosis of depression in elderly people, it is expedient to use Geriatric Depression Scale [9, 18, 19, 20, 34], which consists of the following four questions:

- Are you basically happy with your life?
- Do you feel like your life is empty?
- Are you concerned that something bad may happen?
- Are you a happy person most of the time?

Two and more “pessimistic” responses to the questions of the scale suggest that depression is likely.

The treatment of patients with depressive disorders [6, 27, 28], including the elderly ones, is performed according to the unified clinical protocol of primary, secondary (specialized) and tertiary (highly specialized) health care. The protocol is entitled “Depression (mild/moderate/severe depressive episode with or without somatic syndrome, recurrent depressive disorder, dysthymia)”.

The main objectives of therapy for depressive disorders include management of depressive symptoms, preventing recurrences and restoring social functioning [1, 4, 30].

The treatment of depressive disorders is based on pharmacotherapy (antidepressant therapy) [1], mental health education programs for patients and their relatives, as well as on psychotherapy and psychological correction [22, 26, 27, 29, 30, 32, 45].

The first stage in the treatment of depressive older patients is explaining to the patients and their family that depression is a disease. and not a weakness of character, laziness or a sign of ageing. They should be given detailed information about the adverse effects of antidepressants and that these adverse effects tend to reduce in several weeks (prevention of spontaneous discontinuation of antidepressants/improvement of treatment compliance), while the anti-depression effect takes several weeks to manifest.

The principles of pharmacotherapy of depression in the elderly:

- the treatment should be comprehensive and take into account the characteristics of clinical presentation (anxiety, asthenia, cognitive impairment) and comorbidities;
- the treatment should be started with low doses of drugs and slowly escalated (a typical starting dose is a half of the target dose);
- the selection of drugs should be informed by their side effect profile and by the pharmacological history of the patient;
- change the drug(s) if there is no response during 4 weeks;

- a full response to therapy with antidepressants may take 8 to 12 weeks to unfold;

The selection of antidepressants for the treatment of depressive disorders in elderly patients [1] shall be guided by the principle of efficacy (overall efficacy, the special characteristics of the spectrum of activity, time to onset of clinical effect and prophylactic efficacy) and the safety principle (safety in overdose, low “behavioral toxicity” (the degree of impairment of psychomotor and cognitive functioning), safety in long-term use, and minimal amount of drug interactions).

Selective serotonin reuptake inhibitors have a proven safety and efficacy profile compared to other pharmacological classes of antidepressants (tricyclic antidepressants, selective serotonin and norepinephrine reuptake inhibitors etc.). In spite of a number of their adverse effects (gastrointestinal disorders, sweating, headache, agitation, insomnia), selective serotonin reuptake inhibitors are better tolerated, easy to use and safe when overdosed.

According to many scientists and clinicians, escitalopram can be considered an ideal selective serotonin reuptake inhibitor antidepressant in terms of clinical and therapeutic efficacy and safety profile. This product is a highly selective serotonin reuptake inhibitor acting via specific competitive inhibition of serotonin membrane transporter.

Studies have demonstrated the efficacy of escitalopram at the dose of 10–20 mg/day in the treatment of depression, including in the elderly [1, 4, 22]. Escitalopram is characterized by a rapid onset of anti-depression effect, by the coverage of a wide range of depressive and anxiety disorders, by the absence of drug interactions and by good tolerability. Escitalopram does not have any anticholinergic or antihistamine effects and does not block α_1 -adrenergic receptors. This prevents the development or enhancement of cognitive impairment, sedation, impaired balance and motor coordination, which is especially important for elderly patients.

Older age is a factor in long-term maintenance therapy with antidepressants (two years or more). Escitalopram has high performance measures and remission rates; it is optimal for prevention of recurrences, which makes it a drug of choice for the maintenance therapy in elderly patients with depression. Therefore, older patients are a high-risk population and require a special approach to diagnosis [9, 18, 20] and treatment of depressive disorders [3, 27, 32].

Depression has an adverse impact on the health of an older individual, being the most important predictor of suicide and aggravating the course of somatic disease [2, 7, 35, 44]. The selection of antidepressant drugs for older patients should be thoughtful and thorough, taking into account the efficiency and safety profile, and the duration of maintenance therapy should be sufficient for prevention of relapses of depression [28]. It is also important to have a properly organized system of care for the elderly patients with depressive mental disorders [15].

A depressive condition, which began after a traumatizing event, such as loss of/breakup with a loved one, loss of job or property, excessive stress [39] or fatigue, can be managed without drugs, by using psychotherapy. A person verbalizes their situation, and the therapist draws the patient's attention to the attitude towards people and things, and walks the patient through the emotions and feelings that he/she is experiencing. An outsider who has special training and is able to listen impartially to the most intimate experiences (and is under obligation to keep whatever they hear confidential) will help the patient to see hidden connections and to draw previously unexpected analogies. Family conflicts may be resolved at the sessions of family psychotherapy. Pharmacological therapy is indicated when a disease is the issue [1, 13, 26, 29]. The depression where the symptoms have emerged against the backdrop of complete well-being (the person was happy and completely healthy) is beginning due to malfunction of neurotransmitters, i.e. the substances that exchange information between the cells of the brain [16, 41, 43]. One of these

neurotransmitters, serotonin, is referred to as the “hormone of happiness”. In depression, serotonin levels are low, and they may be increased using drugs such as antidepressants [1].

Nursing staff should be knowledgeable about identifying, treating and preventing depression in the elderly, which substantially improves the quality of life in the elderly and meets the highest standards of providing medical care to older patients.

CHAPTER 2

THE OBJECT OF RESEARCH AND METHODS OF STUDY

The object of the study was the elderly patients with depression, and the subject of study were the depressive disorders in older patients, as well as the specific aspects of management of depressive disorders in elderly patients.

The study has used the following scientific methods: history of present disease and health history, observation, objective examination, general health assessment, collection of information about the main complaints, scientific methods of comparison and systemic analysis, and statistical methods.

The diagnosis of depression is the function of a psychotherapist working together with a clinical psychologist. An experienced psychotherapist can be able to detect signs of the disease at an early stage and to provide prompt and effective aid. A timely initiated treatment will facilitate the path to recovery and will help to avoid complications as much as possible.

However, it is the nurse who will likely suspect a depressive disorder in the patient, since the nurses have closer communications with elderly patients and have trusting relationships with them.

Quite often, the progression of the disorder is gradual. The onset of the disease usually has no overt clinical manifestations. There may be some behavioral changes (gloom, anxiety) and a decrease in vital activity (patients with depression are often constantly sleepy, and they have less interest in the things that attracted them before). All these signs are often mistakenly attributed to bad mood and temporary fatigue. Because of this, the disease that could be potentially managed promptly with an early specialist intervention, begins to progress rapidly.

During an assessment, the healthcare professional should pay attention to the presence/absence of signs of depression in the elderly patients, even if assessed for purely somatic complaints.

Main and additional signs are distinguished.

The main signs of depression include the following:

1. The sensation of inhibition and grief, which persists over an extended time (for more than two weeks). For this reason, the individual may find it difficult to communicate with other people, including their significant others, and later the patient may become fully withdrawn and immersed into themselves, and stop reacting to what is happening around them.

2. Loss of interest in life and previous activities. The patient is no longer interested in their hobbies, self-development and work. In some cases, a person may totally refuse to leave the house due to depression, and may see no point in anything, considering all things futile and meaningless.

3. Increased fatigue, feeling constantly tired and apathy. The things that can be often heard from an individual with depression include "can't do anything", "don't want to get up in the morning". With time, the patient may indeed spend most of their time confined to four walls, hardly ever getting out of bed.

Additional symptoms:

- low self-esteem, feeling of worthlessness, and unreasonable sense of guilt;
- negative outlook, sense of hopelessness, anxiety, irritability, tearfulness. the depressed individuals are pessimistic and prone to mood swings;
- reduced mental alertness and ability to focus; the patient finds it difficult to think, "there are no thoughts in the head";
- suicidal ideation;
- eating disorders: overeating or, conversely, loss of appetite;
- sleep disorders: insomnia, frequent waking up at night or, conversely, permanent sleepiness;
- slow movements, quiet and slurred speech; the individual may remain in the same posture for prolonged intervals (for example, lying in the bed and staring at the ceiling).

According to ICD-10, diagnostically significant presentation includes the presence of two main symptoms and three-four additional symptoms. In this case, the duration of the episode should be at least two weeks.

The psychotherapist may use the following methods:

1. Clinical and history assessment is the basis for diagnosis of depression. The specialist evaluates the potential causes of depression, analyses all symptoms (including subtle and occult ones), and compares this data against diagnostic criteria. An experienced physician may make a diagnosis even in those patients who are apathetic, constantly crying or refuse to make contact with other people.

2. The pathopsychological assessment performed by the clinical psychologist. For the purposes of differential diagnosis (for example, with schizoaffective disorder) and control of treatment efficacy (whether or not there is an objective improvement), the psychologist gives an evaluation of reasoning, memory, concentration and emotional and volitional sphere of the patient.

3. An inspection by a neurologist or an internist, i.e. if the person has complaints of pain, sensory disorders, digestive disorders and/or cardiac pain: the physician will need to detect or rule out general somatic disease, since in some cases the presence of the main signs of depression and nervous exhaustion is associated with such medical conditions. For this, specialists of related profiles are involved: a neurologist, an internist, and an endocrinologist.

4. Laboratory and instrumental testing: if the patient's symptoms have guided the physician to suspect some other health problem in the patient, the physician may order a test for thyroid hormones (differential diagnosis with hypothyroidism), EEG, CT or MRI scan of the head (i.e. testing for an organic brain lesion), Neurotest or neurophysiological test system (i.e. testing for endogenous disease, such as schizophrenia or schizotypal disorder).

It should be kept in mind that depressive manifestations may be part of the symptoms of another mental illness, such as schizophrenia, bipolar disorder or schizoaffective disorder.

The typical duration of depressive episodes is 5 to 6 months, although they may end earlier or, on the contrary, drag on for years. With dysthymia (chronic mild depression), the person may live their entire life and never suspect they might have a mental health problem. Pessimism, constantly depressed mood and inability to experience joy and to display vivid emotions are perceived as character traits, although the person is substantially transformed at the very beginning of therapy.

For a preliminary assessment for the presence of depressive disorders in the patients, we used Geriatric Depression Scale (GDS; by Sheikh JI and Yesavage JA) [34].

Table 2.1. Geriatric Depression Scale (a concise form)

Question	Response	
	Yes	No
1. Are you basically happy with your life?	Yes	No
2. Have you given up many of your activities and interests?	Yes	No
3. Do you feel like your life is empty?	Yes	No
4. Are you bored often?	Yes	No
5. Are you in good mood most of the time?	Yes	No
6. Are you afraid something bad may happen?	Yes	No
7. Are you a happy person most of the time?	Yes	No
8. Do you often feel helpless?	Yes	No
9. Do you prefer staying home to doing in something new?	Yes	No
10. Do you feel you have more problems with your memory than most of the people?	Yes	No
11. Do you think it's great to be alive?	Yes	No

Question	Response	
12. Do you feel worthless in the state you are in right now?	Yes	No
13. Do you feel that you're full of energy?	Yes	No
14. Do you think that your situation is hopeless?	Yes	No
15. Do you think that most people are wealthier than you?	Yes	No

Scale: One point for the “no” response to questions 1, 5, 7, 11, 13.

One point for the “yes” response to other questions.

Normal = 3 ± 2

Mild depression = 7 ± 3

Pronounced depression = 12 ± 2

The score of >5 points may suggest depression and is the reason for subsequent assessment

The score of ≥ 10 points almost always suggests depression.

Scale: One point for the “no” response to questions 1, 5, 7, 11, 13.

One point for the “yes” response to other questions.

Normal = 3 ± 2

Mild depression = 7 ± 3

Pronounced depression = 12 ± 2

The score of >5 points may suggest depression and is the reason for subsequent assessment

The score of ≥ 10 points almost always suggests depression.

CHAPTER 3

CLINICAL RESEARCH STUDY OF CAUSES AND SYMPTOMS OF DEPRESSIVE MENTAL DISORDERS IN ELDERLY PATIENTS

When studying the causes of depression in a clinical research study, we assumed that depression in the elderly is characterized by certain specific aspects and is the most prevalent mental disorder among elderly people. According to health statistics, one in seven older people suffers from depression.

According to our research study, the symptoms of depression were evident in 81 of the 585 elderly patients, which accounted for 13.8% of all older people surveyed in the study.

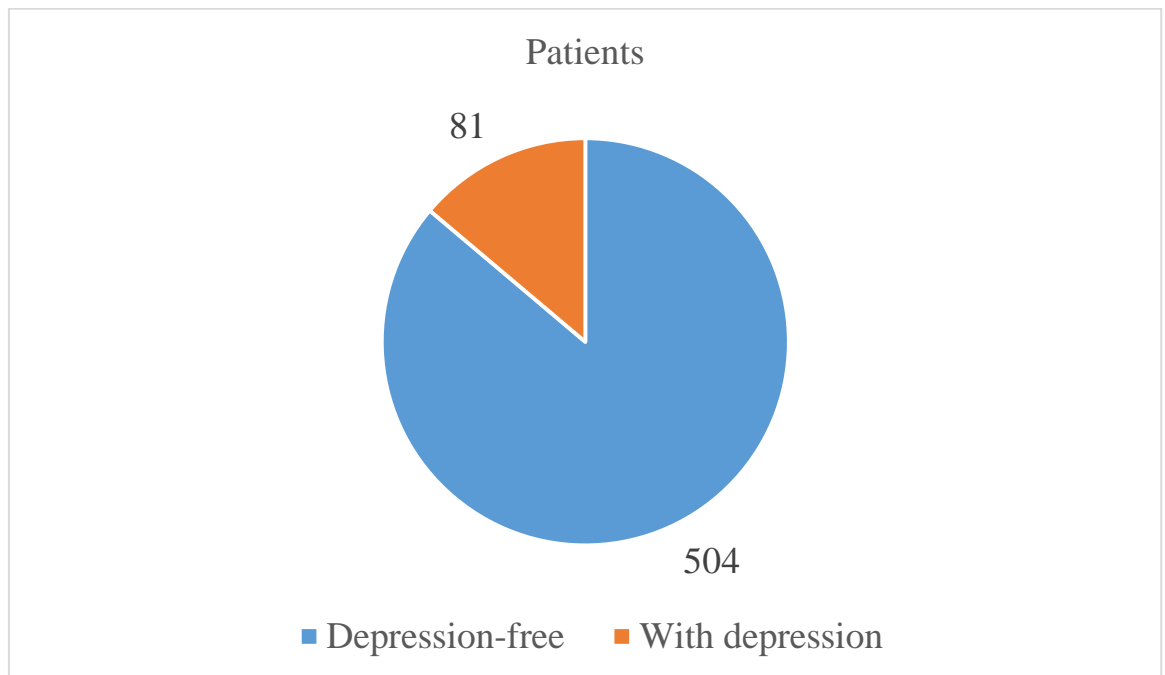


Fig. 3.1. The number of patients with depression among the elderly patients surveyed.

In the elderly people who were staying in the home and did not have any serious illness, this parameter was substantially lower and accounted for 7.3%, while the symptoms of depression were seen in 26.5% of the elderly in-patients who had medical or surgical treatment.

In our research study, the principal factors for the development of depressive disorders in an older age included the following (some patients were exposed to several factors):

- traumatic life experiences (in 57 patients, which accounted for 70.4% of all the patients with depression),
- lifestyle (in 35 patients, which accounted for 43.2% of all the patients with depression),
- chronic disease (in 68 patients, which accounted for 83.9% of all patients with depression).

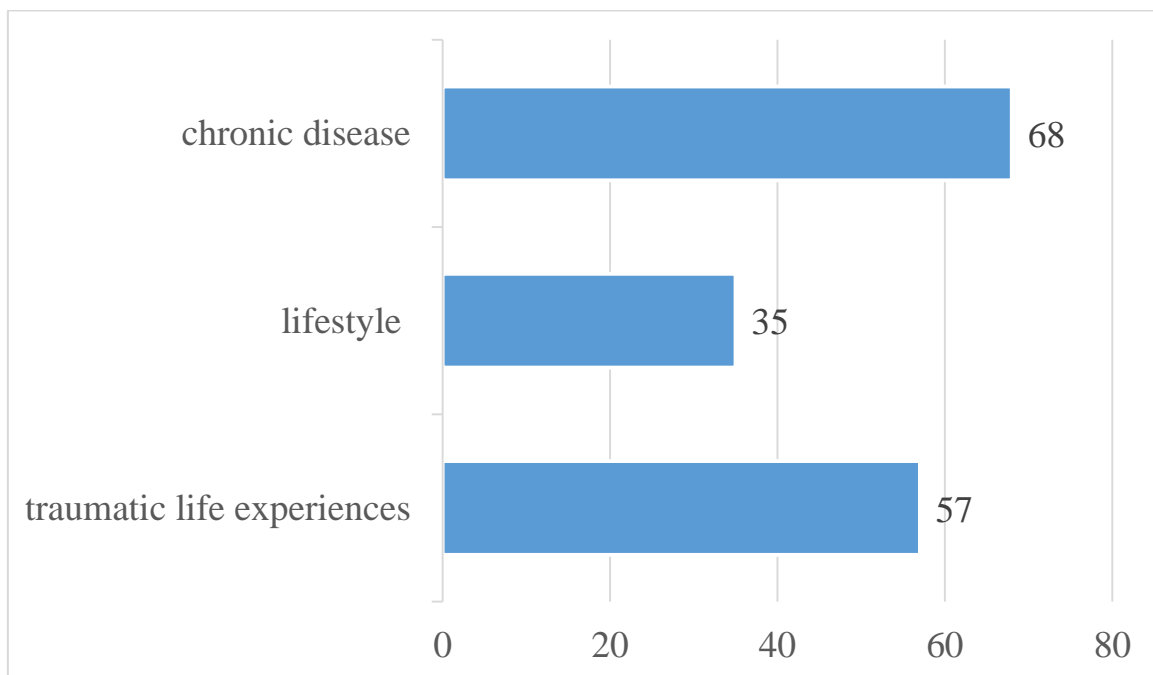


Fig. 3.2. The number of patients with depression with various factors for the development of depressive disorder in an older age.

The symptoms of depression are often masked by feeling generally unwell, by health-related complaints, by chronic fatigue and bad mood; this is why for a long time the relatives may not be aware that their significant other has a serious problem and that a specialist should be consulted.

Depression in the elderly is very much different from the depression in younger people. Older people often avoid demonstrative manifestations of their

"suffering", often do not complain and are mostly unable to detect a depressive condition in themselves. The symptoms of depression are often masked as manifestations of other diseases, i.e. the individual may experience heartaches or intestinal pain and they may begin complaining of weather sensitivity or headaches. A lay person may find it difficult to discern the signs of a mental disorder in these symptoms

The study of the causes of depression. We have conducted a deeper study of the causes of depressive disorders in the elderly, which involved 81 patients with depression. The most common problems of elderly people, which are the potential causes of depression, include the loss of a spouse or other significant other (in our research study, we documented this cause in 33 patients, which accounted for 40.7% of all study patients with depression), health problems (primarily the diseases limiting physical activity and self-care capacity; neurological disorders), loss of social contacts and financial problems.

Prolonged administration of some medications can lead to iatrogenic (pharmacogenic) depression (in our research study, we documented this cause in 6 patients, which accounted for 7.4% of all study patients with depression).

Almost a half of elderly population is diagnosed with cerebral ischemia, which in most cases is accompanied by depression (in our research study, we documented this cause in 43 patients, which accounted for 53.1% of all patients with depression). The relatives of an elderly person often perceive such diseases and the associated depressed mental states as inevitable and as a normal process of aging and demise. However, geriatricians are certain that cerebral disease should be treated in any, even very advanced age.

The impetus for the development of depression often involves a stroke or a heart attack (in our research study, we documented a history of stroke in 11 patients [which accounted for 13.6% of all patients with depression] and a history of heart attack in 14 patients [which accounted for 17.3% of all patients with depression]), as well as the diseases associated with degradation of cognitive functions, i.e. dementia and Alzheimer's disease.

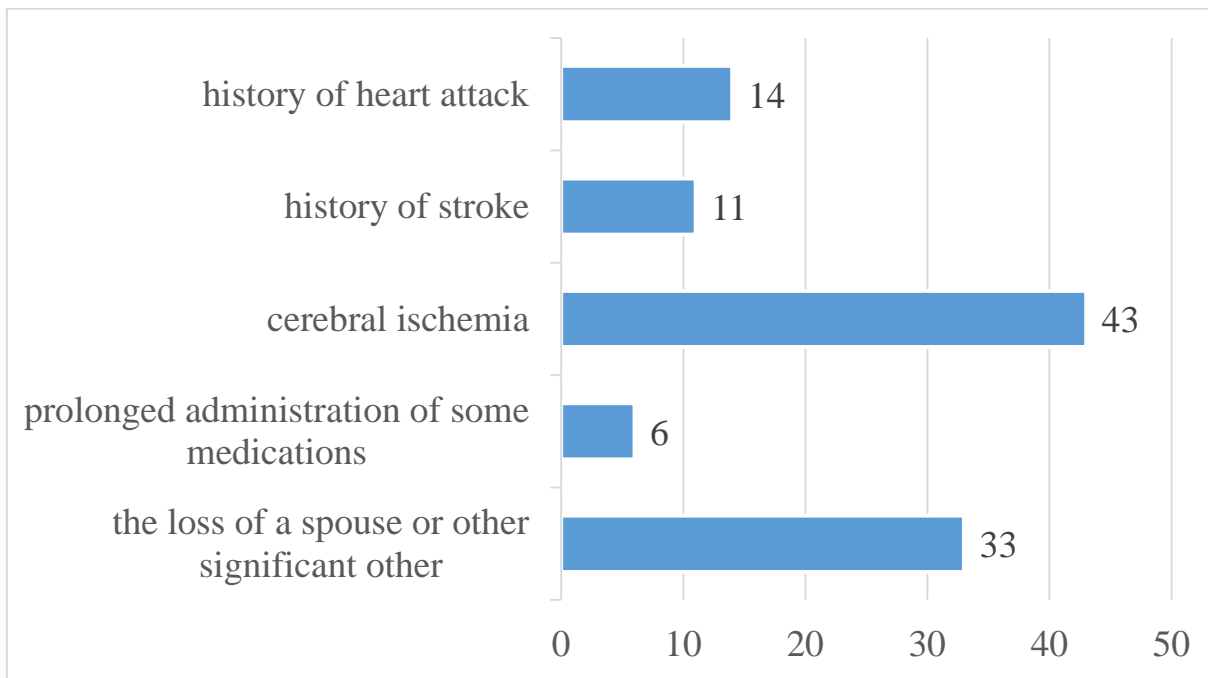


Fig. 3.3. A study of the causes of depression (the number of elderly patients with various causes of depression among the overall number of patients with depression in this study: 81 patients).

Women are more prone to depression than men (in our research study, we observed depression in 56 women, which accounted for 69.1% of all patients with depression, while there were 25 males with depression, which accounted for 30.9% of all patients with depression).

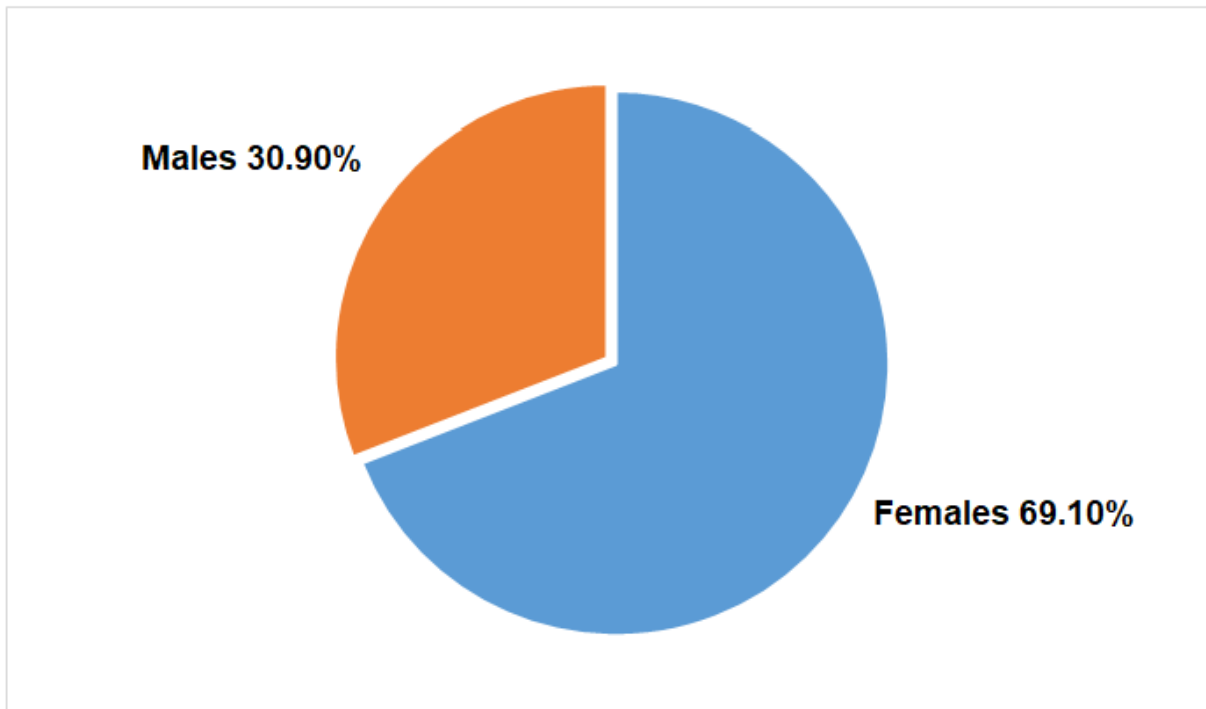


Fig. 3.4. The percentage ratio of female and male patients with depression in this study.

The study of depressive symptoms late in life. The older patients who remained under our supervision were noted to have the following symptoms of depression:

- **Mood changes:** despondency, irritation, lack of vitality, apathy and a general negative mood (we observed these changes in 81 patients, i.e. in 100% of all patients with depression).
- **Reduced physical and social activity:** the elderly person is becoming less mobile and rarely leaves their home (we observed these changes in 81 patients, i.e. in 100% of all patients with depression). Any simple task or a need to go somewhere becomes a problem, making the patient nervous and causing anxiety. The person becomes withdrawn, their range of interests becomes very narrow, and they eventually stop communicating with their friends. Their entire activity is often limited by visiting their polyclinic and going to a nearby grocery store. Lack of activity and loss of social contacts cause

deterioration in physical and mental health, which triggers deterioration in depression.

- Increased anxiety: the elderly person begins to worry excessively for themselves and their loved ones; moreover, their fears and anxieties are clearly disproportionate to reality (we observed these changes in 28 patients, which accounted for 34.6% of all patients with depression).

- Sleep disorders: depression always causes sleep problems (we observed these changes in 62 patients, which accounted for 76.5% of all patients with depression). In the advanced age, these more frequently include difficulty falling asleep, insomnia and restless and superficial sleep.

- Loss of appetite: elderly people with depression often have remarkably decreased appetite and weight loss as a consequence (we observed these changes in 31 patients, which accounted for 38.3% of all patients with depression).

- Memory impairment and reduced mental alertness (we observed these changes in 56 patients, which accounted for 69.1% of all patients with depression).

- Increased physical discomfort (we observed these changes in 75 patients, which accounted for 92.6% of all patients with depression).

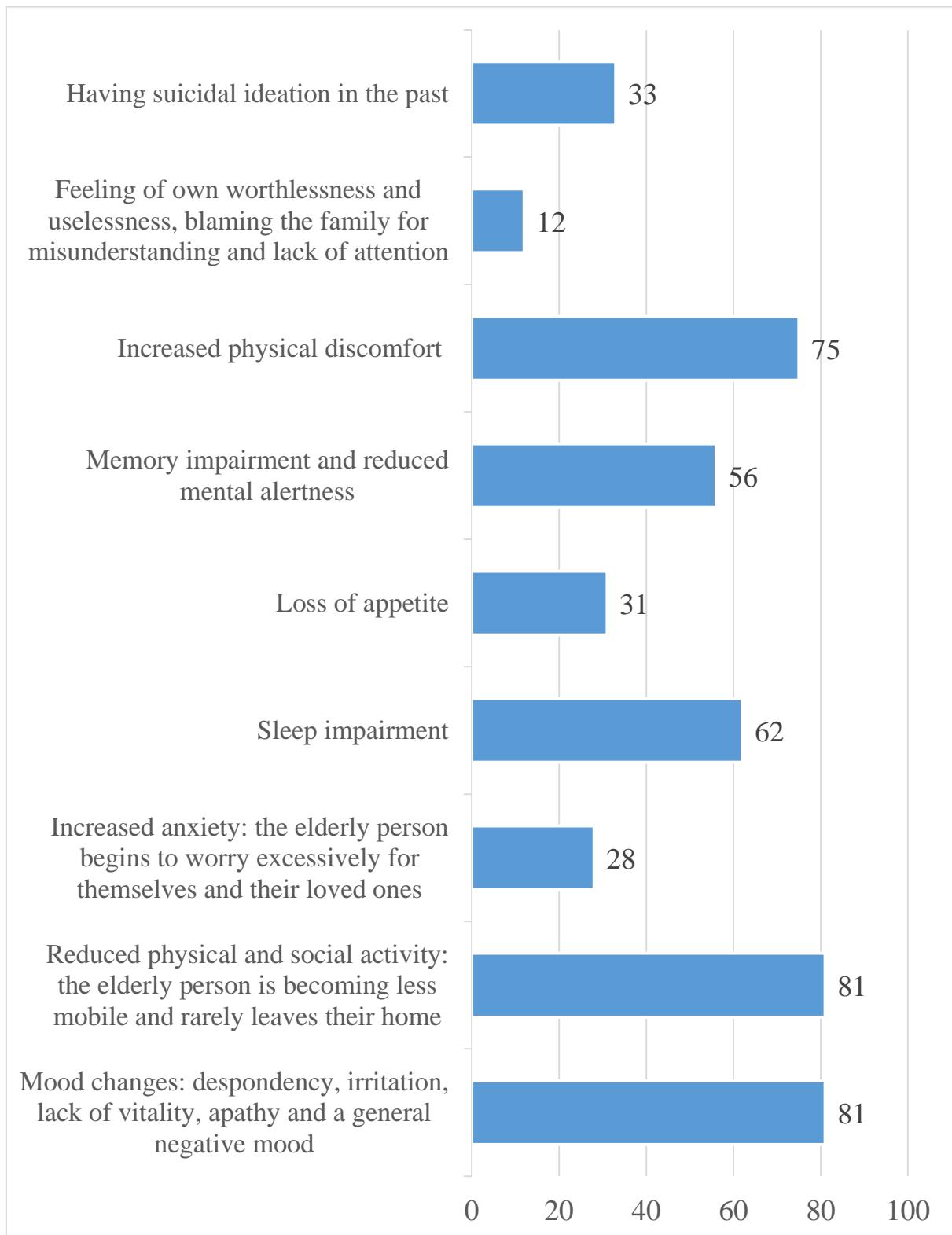


Fig. 3.5. A study of the symptoms of depression in an older age (the number of elderly patients with various symptoms of depression among the overall number of patients with depression in this study).

In an older age, depression may manifest by exclusively physical symptoms; this may include continuous complaints of increased physical discomfort, not feeling well, constant pain, intestinal disorders, problems with blood pressure, etc. Since people of advanced age nearly always have a few diseases they have acquired in various periods of their life, the healthcare team begins active management of these conditions. However, in a setting of clinical depression in the elderly, no treatment of somatic disease may improve their well-being or mood.

- Feeling of their own worthlessness and uselessness, blaming the family for misunderstanding and lack of attention (we observed these changes in 12 patients, which accounted for 14.8% of all patients with depression).
- A population with high risk for depression also includes lonely people, elderly people who abuse alcohol and those with a history of confirmed psychiatric conditions/mental disorders and suicidal attempts (none of the patients in our study had suicidal attempts, but many patients reported having suicidal ideation in the past, namely 33 patients, which accounted for 40.7% of all patients with depression).

We have also studied the specific aspects of diagnosis of depression in the elderly.

Senile depression is generally difficult to diagnose. This is attributable to the specific aspects of geriatric psychology and to a widely spread misconception of older age as a period in life inevitably associated with disease, infirmity and incessant complaining. The symptoms of depression are often mistaken for the manifestations of somatic disease or of age-dependent changes. This is why depression in the elderly often remains undetected and untreated.

Elderly people keep visiting their doctors for a variety of diseases; of note, they remain focused on physical symptoms only. An elderly person may have no idea that their physical symptoms are in reality caused by a mental condition. In addition to that, many people of that age consider it embarrassing and shameful

to complain of mental problems; this is why even the most experienced health professionals may overlook the development of depression.

Traditional tests also fail to detect this disease.

Special role must be played by the nurses, by concerned family members and by the treating physician; that is, by the people who know the person well and who are capable of evaluating any changes in the patient's physical emotional and mental state and of timely detecting the emerging symptoms of a depressive disorder. In this case, it is necessary to consult a specialist, that is, a psychiatrist, a clinical psychotherapist, a neurologist or a geriatrician. Older people rarely admit that they may have a mental problem, and it is often difficult to persuade them to visit a mental health professional. This is why it is important to involve a family member, with whom the patient has a trusting relationship, to conduct an honest conversation trying to drive home the message that treatment is necessary.

We have conducted the treatment of depression in elderly people who have been under our observation.

Not treating depression in elderly people means contributing to deterioration of their quality of life and reducing their life expectancy. Depression in an older individual may lead to myocardial infarction, coronary artery disease and other cardiovascular disease, trigger the development of type II diabetes and suicidal ideation. Such patients have poor compliance with the treatment of their underlying disease, which often leads to exacerbation of the disease.

Depression in an older age is treated by a combination of drug therapy and psychological therapy. Psychological counseling may be provided at medical and diagnostic healthcare institutions. Experienced geriatricians know that not all drugs are suitable for elderly patients, that there are specific aspects of dosing that depend on age, comorbidities and concomitant medications taken. The methods of treatment of the elderly and young patients may differ substantially.

The earlier the treatment is started, the better are the chances that the biochemical processes in the brain will be returned to normal.

Pain is a major trigger of depression in elderly individuals. Many older people live with constant pain in their joints and backs and with constant headaches. There is a general consensus among the medical professionals that patients should not endure pain; therefore, it is necessary to report this problem to a treating physician who will select an appropriate pain management plan. After pain is controlled, the depressed state can be dealt with.

In mild forms of depression, it is also important to restore social contacts and physical activity. This is where the support and help by the family is becoming critically important. The older family member should be involved into the common business of the family, provided with an interesting chore or a hobby, and helped with household routines/not left alone for prolonged periods.

In this research study, we have also used effective methods for prevention of depression in an older age, the most important of these factors being the following:

- Physical activity. Simple exercise improves the mood, brings about the joy of physical movement, normalizes blood pressure and trains the heart muscle. An elderly person may choose the type of physical activity of their liking and which may suit their physical condition. This may include yoga-type exercise, tai chi, Nordic walking or simply brisk walks in the open air.

- Social activity. Many urban settings currently offer various programs for senior citizens, service clubs, dancing and musical classes, art studios, computer literacy classes, etc. The family members of an elderly person may arrange for joint trips to the theater, to art exhibitions, to the countryside, etc. An active social life provides the person with a sense of involvement and belonging and leaves little room for despondency.

- Health status monitoring. It is necessary to have regular medical examination and health screening, to monitor blood pressure, cholesterol and sugar levels, and to take measures to prevent head injuries and falls, which is especially important for elderly patients.

CHAPTER 4
A STUDY OF SPECIFIC FEATURES OF VARIOUS TYPES OF
DEPRESSION AND THE INCIDENCE OF THEIR MANIFESTATIONS IN
THE ELDERLY

There are different types of depression, which have a different course.

The signs and symptoms differ in terms of number, time, severity and incidence, but overall they are very similar. Since various types of depression are treated differently, it is important to determine the type of depression accurately. Depending on gender, age and cultural considerations, the symptomatology and the severity of depression are manifested differently.

Neurotic and reactive (minor) depression is treated with psychotherapy.

Somatic and psychotic depression is treated with drug therapy. This terminology is used by psychiatrists.

Studies have shown that depression has a phasic course. Periods of normal mood alternate with depressive episodes. Sometimes, a manic phase may appear instead of a depressive phase, which may be manifest by irritability and elated mood. If that is the case, then the patient does not have depression, but rather has bipolar disorder (a more serious condition).

1. Depressive episode

The most common and typical form of depression is the depressive episode. The episode lasts from several weeks to a year, but its duration is always more than 2 weeks. A single depressive episode is referred to as monopolar. Approximately a third of patients experience only one episode or phase throughout their lifetime. Nonetheless, if the individual has not received an appropriate treatment for their depression, there is a risk for recurrent depressive episodes in the future. To one degree or another, depressive episodes always affect a person's performance at work.

2. Periodic (recurrent) depressive disorder

When a depressive episode repeats, this situation is referred to as recurrent depressive disorder or major depressive disorder, which usually begins during adolescence or young adulthood. In such a depression, depressive phases (which may last from several months to several years) alternate with periods of normal mood. This type of depressive disorder may seriously affect performance in the workplace and is unipolar by virtue of its nature (there are no manic or hypomanic phases). This is the so-called “classic” or “clinical” depression.

3. Dysthymia

Dysthymia presents with milder and less severe symptoms than a depressive episode or recurrent depression. Nevertheless, the disorder is continuous, the symptoms last much longer (for a minimum of 2 years, sometimes for decades); this is why this disorder is referred to as chronic depression. This is a unipolar disorder, which also affects performance in the workplace. This type of depression occasionally becomes more severe (major depressive episode); when this happens, such a condition is referred to as double depression.

4. Bipolar depression, type I

This type of depression in bipolar disorder, which was previously referred to as manic depressive psychosis and occurs less frequently than unipolar depression. It involves changes of depressive phases, the phases of normal mood and the so-called manic phases.

The manic phases are characterized by excessively elated mood associated with hyperactivity, anxiety and reduced sleep requirement.

Mania affects cognition, reasoning and social behavior and causes serious problems and difficulties. When a person is in the manic phase, they may engage in high-risk promiscuous behaviors and make unreasonable financial decisions. After a manic episode, such people often experience depression.

The best verbal description for this emotional rollercoaster is the phrase “to be on top of the world only to fall into an abyss of despair”.

The symptoms of the depressive phases of bipolar disorder are often difficult to distinguish from unipolar depression.

5. Bipolar depression, type II

It is more like recurrent depressive disorder than bipolar disorder. In this disorder, multiple depressive phases alternate with phases of mania, but with less pronounced euphoria. During these phases, the family and significant others may even erroneously assume that the patient is doing alright.

6. Mixed anxiety-depressive disorder

In anxiety-depressive disorder, the clinical presentation is very similar to depression; however, in depression, depressive syndromes always come to the fore. In this case, the anxious and depressive symptoms are combined in an even fashion.

7. Depressive psychotic episode

A special type of depressive episode is psychotic or delusional depression. Psychosis is a condition when people see or hear things that do not exist (hallucinations) and/or have false ideas or convictions (delusions). There are different types of delusion, such as self-condemnation for no reason (delusion of guilt), financial collapse (delusion of poverty), fear of mysterious disease (hypochondriacal delusion). People with delusional depression almost always require inpatient psychiatric treatment. Psychotic episodes can be either unipolar or bipolar.

8. Atypical depression

This type of depression is characterized by hypersensitivity and mood swings, overeating and sleepiness, and by panic attacks. This type of depression is mild and may be bipolar.

9. Seasonal depressive disorder

This type of depression is similar to atypical depression and has a seasonal course in changes of climate, more often in the fall or in the winter. When the season ends, people regain their normal functioning.

10. Recurrent brief depressive disorder

This is a milder variant of depression, more often affecting young people and characterized by brief depressive episodes lasting less than 2 weeks each.

In elderly patients with depression whom we assessed in this research study, we most frequently observed such types of depression as dysthymia, mixed anxious depressive disorder, atypical depression and seasonal depressive disorder. Other types of depression were substantially less frequent in elderly patients.

CHAPTER 5

DEPRESSIVE DISORDERS IN ELDERLY NEUROLOGICAL PATIENTS AND THE PRINCIPLES OF THEIR THERAPY

The problem of the so-called late depression, i.e. the depression in elderly patients, is often underestimated by both healthcare providers and the families of the patients. The symptoms of illness are usually attributed to ill humor and/or somatic and neurological disease, although it is the manifestations of depression that largely determine poor health, more frequent visits to the doctor, ambulance calls and hospitalizations and, respectively, large financial expenditures on the aforementioned health resource utilization.

The emergence of depression in an older age is attributable to at least two groups of closely interconnected factors: psychosocial and biological. The psychosocial preconditions for depression of the elderly include impediments to professional activity and the feeling of being professionally unwanted, family problems (loss of partner, “empty nest syndrome”, loneliness, problems in relationships with significant others), economical problems (low living standards, dependency on others).

A significant role in development of depression in an older age is undoubtedly played by biological factors. A variety of processes in the brain may contribute to the onset of late depression, including disorders in monoaminergic systems (norepinephrine, serotonin, dopamine), cerebrovascular disease, Alzheimer's disease, dementia with Lewy bodies, functional changes in limbic and subcortical systems, hippocampal atrophy, disorders of neurogenesis and neurotrophic factors, and toxic stress with hypercortisolemia and inflammation.

In their attempts to decipher the biological preconditions for depression of the elderly, the researchers pay attention to the following aspects of the problem:

- the connection of depression with organic cerebral disease (i.e with vascular and neurodegenerative abnormal processes);

- cognitive impairment and late depression;
- neuroanatomical brain changes in depression.

Depression in organic cerebral disease

Elderly patients with neurological and somatic disorders are twice as likely to develop depression than physically healthy individuals of the same age. Among elderly in-patients, the prevalence of depressive disorders is approximately 40%. It is this patient population to harbor the highest percentage of unrecognized and untreated depression, which is associated not only with the lack of sufficient awareness of physicians and patients, but also with atypical manifestations. Depression of the elderly has many specific characteristic features compared with depression in younger age groups. It has the following typical characteristics:

- “somatized” symptomatology;
- cognitive impairment;
- apathy and asthenic manifestations;
- anxiety and hypochondriacal fixation;
- pain syndromes;
- feelings of loneliness, helplessness, worthlessness, burdensomeness;
- taciturnity and profoundly impaired communication functions;
- more prominent social maladjustment (in the family and in the society);
- a trend towards recurrent or chronic/protracted course.

According to different scholars, the prevalence of depression among the elderly neurological patients is quite different. Below is the incidence of depression in patients with vascular and degenerative cerebral disease.

Vascular brain damage:

- post-stroke depression: 20-50%;
- vascular dementia: 30-71%;
- Parkinson's disease (PD): 50%;
- parkinsonian syndrome: 30-90%;
- Alzheimer's disease: 30%.

Depression may be triggered by some drugs often prescribed in the elderly patients, including hypotensive/cardiac, hormonal, non-steroid anti-inflammatory agents, anti-parkinsonian drugs and tranquilizers.

When contemplating the depression in cerebral vascular disease, post-stroke depression and vascular depression should be primarily considered.

Post-stroke depression. According to literature, 5% to 68% of post-stroke patients have depression, which is more frequently seen in female patients. Clinical features of post-stroke depression include psychomotor inhibition, anhedonia, difficulty concentrating, catastrophic reactions, excessive emotionality, pronounced diurnal mood swings, asthenia, and disturbances of sleep and appetite. Emergence of depression is possible early (within the first months) after the stroke, and later in life (within a few years after the stroke). More prolonged depression is more frequently seen in people with strokes in the middle cerebral artery territory compared to the patients with strokes in the vertebrobasilar territory. There is conflicting evidence regarding lateralization of the lesions, although information is being accumulated about the greater role of the left hemisphere in the development of post-stroke depression.

The strategic zones for the development of depression are the frontal lobes and the basal ganglia of both hemispheres. There is data on correlation between the severity of depression and the degree of disability, especially when the latter occurs early.

Vascular depression. The scientists G. Alexopoulos et al. and K. Krishnan et al. coined the concept of vascular depression to designate the depression associated with cerebrovascular disease. This concept is based on the idea that organic (ischemic) changes of brain matter may be the main etiological factor of development of depressive symptoms in an older age.

The criteria of vascular depression (according to G. Alexopoulos) include the following:

- onset of depression in an advanced age (after 65 years);

- clinical signs or magnetic resonance imaging (MRI) findings of diffuse bilateral ischemic damage to the subcortical white matter of the brain;
- the presence of risk factors of chronic cerebrovascular disease (hypertension, diabetes, carotid artery stenosis, atrial fibrillation, hyperlipidemia).

Dysfunction in the area of strio-pallido-thalamo-cortical pathways and potential changes in the neurotransmitter systems involved in mood regulation is suggested as causes for depression. It is believed that when ischemic brain damage destroys a number of neurons above a certain threshold, this creates a predisposition to vascular depression. It is this type of depression to be often characterized as a late-onset depression.

The specific aspects of clinical presentation of vascular depression are as follows:

- absence of sense of guilt and self-condemnation;
- apathy, reduced motivation;
- psychomotor inhibition;
- prevalence of cognitive impairment over other manifestations of depression;
- cognitive impairment begin with impaired executive functions (planning, organization, consistency, abstract thinking), memory or information processing rate;
- significant helplessness in everyday life;
- concomitant onset of depression and cerebrovascular disease (clinical presentation + MRI findings);
- the likelihood of "silent strokes" or transient ischemic attack;
- as a rule, absence of affective disorders in the family;
- a weaker response to therapy with antidepressants.

Escalation of depression correlates with damage to subcortical white matter, and the severity of depression inversely correlates with the volume of the

matter in the prefrontal cortex. Some researchers consider that vascular depression is one of the most frequent forms of depression in elderly people.

Depression and risk factors of cerebrovascular disease. There is evidence that depression in itself may predispose to vascular disease and may even be considered one of the risk factors for stroke.

In people over 65 years of age, the incidence of stroke was found to be 2.3–2.7 times higher when high-grade depression was present. Depression belongs to independent risk factors for progression of cardiovascular disease. Depression has been shown to increase the risk of cognitive vascular disorders and recurrent strokes even after other risk factors have been controlled (i.e. such factors as hypertension, diabetes, hyperlipidemia, coronary artery disease and smoking). The mechanisms through which depression may contribute to cerebrovascular disease include activation of hypothalamic-pituitary-adrenal axis, hyperactivation of the sympathoadrenal system, inflammatory changes of the vascular wall and hypercoagulation.

PD and depression

According to different authors, the incidence of depression in Parkinson's disease (PD) ranges from 7% to 90%. The meta-analysis of epidemiological studies in this issue shows that approximately 40% of patients with Parkinson's disease have depression. Clinical presentations of parkinsonism and depression share many common features, such as depressive affect (an inhibited, depressed and dreary mood); ideational inhibition (i.e. reduced mental activity); and psychomotor inhibition (reduced rate of thinking and speech, and lack of variety in gestures, facial expressions, intonations and postures).

The basis for depression in Parkinson's disease is a dysfunction (imbalance) of main neurotransmitters, such as dopamine, norepinephrine, acetylcholine, serotonin, g-aminobutyric acid and peptides. The basis of Parkinson's disease, i.e. dopamine insufficiency in strio-nigral system may be accompanied by the deficiency of dopamine in mesolimbic and mesocortical areas of the brain, which is manifested as affective disorders and cognitive

impairment. Depressive affect has been shown to precede the onset of parkinsonism. The development of depression in patients with parkinsonism may be a psychological response to a disadaptive physical defect, or be a parallel process associated with biochemical shifts of neuromediator balance of monoamines. Loss of white matter in corticolimbic structures positively correlates with depression in patients with PD.

Depression of the elderly and cognitive impairment.

The connection of cognitive impairment with late-onset depression is well known to the clinicians and widely discussed in scientific literature. This is underlain by numerous data suggesting close and bilateral connections between affective and cognitive disorders. Thus, subjective memory complaints in elderly people with depression accounted for 47%; subjective complaints were confirmed by objectively detected cognitive deficits in 25% of patients, and only 28% of the patients had neither complaints nor objectively confirmed cognitive disorders.

Possible options for the relationships between depression and cognitive disorders are presented below.

1. Cognitive disorders (reversible) can be one of the leading manifestations of depression of the elderly; this is the so-called pseudo-dementia. In addition to depressive affect, the researchers have described the following as manifestations of pseudo-dementia: slowing down of movements and speech, aspontaneity, long latency period of verbal responses, approximate answers, responses in the mold of “I don’t know”, “I don’t remember”; disorientation, reduced ability to focus attention, distractibility, deficiency in remembering new information (although memory loss can be selective), insufficient ability to generalize while being aware of cognitive difficulties; the absence of symptoms of aphasia, apraxia, or agnosia. Within the framework of pseudo-dementia, cognitive failure dominates the complaints of the patients and makes them very disappointed. Quite often, the patients tend to exaggerate the

severity of their cognitive impairment. There may be an inconsistency between the complaints and the preservation of cognitive functions.

2. Depression often accompanies dementia of degenerative or vascular nature (in part, Alzheimer's disease or vascular dementia), or acts as its initial manifestation. Depression and depressed mood combined with dementia are seen in approximately 20–25% of people with Alzheimer's disease and in 20–50% of people with vascular dementia. Almost a half of elderly patients who have had depression with symptoms of cognitive dysfunction will develop irreversible dementia within 5 years. Studies have suggested that the depression appearing late in life is probably just revealing early preclinical symptoms of organic dementia.

3. Depression and cognitive disorders are the factors that deteriorate the course of any disease. In an older age, depression is also a known risk factor of cognitive impairment and dementia. Stress and depression, as they contribute to morphological changes in the brain (reduced gray matter in the limbic and cortical areas, as well as the damage to white matter), increase the likelihood that the patient may develop cognitive disorders.

4. Depression and dementia (cognitive disorders) are the general manifestations of neuroanatomical changes in the brain (for example, in vascular depression or in vascular dementia).

Neuroanatomical changes in the brain substrate in patients with depression

To date, a fairly large number of studies have accumulated that suggest anatomical changes in the brain of people with depression. The findings of meta-analyses of neuroanatomical trials of the recent years have shown that such patients (up to 50 years of age) had reduced volumes of cerebral gray matter in the areas of anterior cingular gyrus (more in its rostral part), hippocampus, amygdala, prefrontal/orbitofrontal cortex and superior temporal gyrus, as well as thalamus, i.e., there was involvement of limbic and cortical structures. The role of white matter changes in the pathogenesis of depression in young adults and middle-aged adults is discussed to a significantly lesser degree.

Concerning depressions in elderly patients, neuroanatomical changes in both gray and white matter of the brain are discussed. It is believed that depression and dementia in an older age may have common functional and/or structural correlates.

The literature suggest two potential candidates: white matter damage and atrophy of gray matter. There are two competing hypotheses of pathogenesis of late depression with cognitive disorders. One of them suggests the mechanism of deafferentation, that is, interruption as a result of damage to the white matter of subcortical pathways connecting the cortical areas that are decisively involved in the management of mood and cognitive functions, which subsequently leads to neuronal dysfunction and ultimately even to the loss of neurons in these cortical areas. Other concept suggests that it is rather the processes directly involving the cortical areas participating in cognitive activity and mood control, and not the disruption of connections due to remote damage to white matter that cause cognitive impairment and mood impairment.

The aforementioned neuroanatomical changes are largely due to the processes of neuroplasticity in the central nervous system, which is defined as an aggregate of neurodegenerative phenomena (destruction and death) and repair (partial restoration) of the nervous tissue. These processes include the following: formation of new synaptic connections; the “birth” of new neurons; and the “birth” of new glial cells. The aforementioned processes occur throughout the entire adult life; for instance, the “birth” of new human neurons can be seen even past 70 years of age.

The mechanisms of implementation of negative impact on neurogenesis are primarily attributable to increased cortisol content and reduced production of brain-derived neurotrophic factor (BDNF). Brain-derived neurotrophic factor is the main neurotrophic peptide in the body, which is responsible for the processes of neuroplasticity, including the growth of axons, the increase in the number of synapses and the survival of cells. The levels of this peptide decrease under the impact of stress, depression and cortisol. It is assumed that the neurotrophic

factor is the connecting link between stress, neurogenesis and atrophy of the hippocampus in depression. Therefore, the following conclusions can be made:

1. Depression in an older age often accompanies vascular and degenerative disease of the CNS.
2. The typical characteristics of depression in an older age include manifest cognitive impairments often subsequently leading to dementia.
3. Patients with depression in an older age are found to have apparent impairments of cerebral gray and white matter, where brain-derived neurotrophic factor is believed to play a major role.

Therapy of depressive disorders in elderly neurological patients.

Depression is a disease that must be treated at all times, regardless of the age of the patient, comorbid conditions and the causes of depression.

Treatment of the underlying neurological disease.

The first question that arises in management of such patient is how adequate the therapy is regarding the underlying neurological disease. Thus, in case of vascular depression treatments may include vasoactive drugs, lipotropic drugs, antiplatelet agents, etc.; in patients with parkinsonism, adequate treatments may include levodopa and dopamine receptor agonists. The treatment of cognitive disorders and dementia may require cholinesterase inhibitors and antiglutamatergic drugs. For example, the treatment of vascular depression with antidepressants combined with vasoactive and nootropic drugs leads to a more noticeable reduction in depression levels than therapy with antidepressants combined with placebo.

Therapy with antidepressants. When selecting antidepressant drugs, the neurologist should, first of all, take additional risks into account:

- the presence of concomitant neurological and somatic chronic diseases, which increases the risk for development of side effects and enhances the toxicity of antidepressants;
- taking large numbers of drugs for chronic disease increases the risk for drug interactions; when antidepressants are prescribed, minimal adverse effects

and drug interactions are the number one priority, while the level of clinical efficacy ranks second.

The current drugs of first choice are the selective serotonin reuptake inhibitor antidepressants, whose advantages are as follows: wide spectrum of clinical efficacy; narrow range of adverse effects; lower toxicity and greater safety; good tolerability; potential uses in an outpatient setting, in gerontological patients, in somatic and neurological burden; absence of behavioral toxicity; and minimal drug interactions. This group consists of the following 6 drugs: fluvoxamine, fluoxetine, paroxetine, sertraline, citalopram and escitalopram.

The typical adverse effects of selective serotonin reuptake inhibitors include abdominal discomfort, sweating, decreased appetite and sexual dysfunction, which, however, are transient and rarely lead to discontinuation of the drug and withdrawal from treatment. As a rule, the duration of antidepressant treatment should be not less than 6 months; shorter courses often cause recurrences.

Neurotrophic therapy.

The destructive processes seen in patients with affective disorders are partially reversible in a setting of treatment with neurotrophic drugs. One of such products is Cerebrolysin, which consists of low molecular weight neuropeptides and free amino acids. The studies conducted have shown that the effects of Cerebrolysin were similar to the effects of brain-derived neurotrophic factor, which are present in nervous tissue under natural conditions. In pharmacologically effective quantities, the peptides in the formulation of the drug penetrate the blood-brain barrier well, and their effect is usually more pronounced than the effect of natural neurotrophic factors. Cerebrolysin effectively stimulates the processes of regeneration of nervous tissue by improving the intracellular synthesis of receptor proteins and regulatory proteins, as well as the transporter proteins of neurotransmitters, contributes to differentiation of neurons, the growth of dendrites, restoration of spikes and synapses, and the growth and branching of axons. By virtue of its neurotrophic

effect, Cerebrolysin prevents neurodegeneration (i.e. promotes neurogenesis and neuroplasticity) and activates the synthesis of neurotransmitters, resulting in natural restoration of the nervous tissue. Cerebrolysin may potentiate the effects of other drugs, including antidepressants.

It is expedient to use Cerebrolysin as an additional drug for the treatment of elderly patients. There are reasonable grounds for this. Firstly, Cerebrolysin has already proven its neurological effectiveness in elderly patients (in part, in the acute phase of/rehabilitation after ischemic stroke), and in chronic cerebrovascular disease. Secondly, double-blind placebo-controlled studies have shown the efficacy of Cerebrolysin as an additional therapy in cognitive disorders in a setting of both vascular and degenerative brain damage (Alzheimer's dementia). Given the frequent combination of late depression with cognitive disorders, the use of Cerebrolysin seems to be undoubtedly justified. Thirdly, the changes of gray and white brain matter found in late depression require neurotrophic therapy, including the use of Cerebrolysin, a drug with proven neurotrophic activity.

A number of studies have shown the benefits of adjuvant Cerebrolysin use in resistant depressions. Therefore, adequate management of the underlying neurological disease, the use of effective and safe antidepressants combined with neurotrophic therapy with Cerebrolysin allows for an effective control of depression in the elderly neurological patients. This improves the quality of life and improves the course of comorbidities and the mental condition of the patient.

CHAPTER 6

ORGANIZATION OF MEDICO-SOCIAL ASSISTANCE FOR ELDERLY PATIENTS WITH DEPRESSION AND SOMATIC DISEASE

Upon careful consideration of the results of our study, we have arrived at the conclusion on a special importance of compliance with the norms of medical ethics and deontology when providing care to older and elderly patients with depression. It is not infrequent that a nurse is becoming the only “significant other” for the patient, especially in the case of lonely people.

Therefore, an important role in the organization of such care in the elderly people with depression is reserved for nursing personnel and social workers. Their participation in preventive, therapeutic, diagnostic and rehabilitation activities not only in a setting of a hospital or a polyclinic, but also in the homes of elderly patients with depression will ensure greater accessibility of medical and social assistance to the older and elderly people.

This requires a significant expansion of the visiting nursing care service, which currently does not possess sufficient reserves and human resources. The visiting nursing service is becoming more effective if its core is staffed by highly skilled nurses able to make competent decisions, including those on a number of issues that were not previously covered by the scope of practice.

Organization of care for the elderly people with depression (with an emphasis on maintaining their health) cannot be limited to medical issues; it must employ a multidimensional medico-social approach.

The types of care in elderly people with depression include the following:

1. Medical (treatment of diseases)
2. Rehabilitation (restoration of the functions lost due to disease or age)
3. Social (washing, buying groceries, medications, cooking, cleaning the apartment, assistance with getting pension and other welfare payments, etc.)
4. Adaptational (adjustment to life under changed conditions)

5. Economical (payment of lump-sum allowances, targeted monetary aid)
6. Psychological
7. Spiritual
8. Legal
9. Technical (maintenance and repair of prostheses and mobility equipment/means of transport, etc.).

The general care for the elderly and senile patients with depression is more complex and requires more attention and time from the healthcare personnel compared to conventional care protocols. The main principle of care is respecting the person of the patient, accepting them as they are, with all their mental and physical imperfections. In order to create a quality system of care for elderly patients with depression, the health professionals should keep in mind the main categories of needs in the elderly people and to be able to identify those needs. Mental and psychological problems of patients are extremely important.

The main care objectives in older individuals with depression is maintaining their physical, mental and social well-being within the existing limitations. As long as an elderly person with depression does not require emergency care or other inpatient care, they should stay in their home setting for as long as possible. However, this is true only to a certain extent, since the family may be unable to provide adequate care. Hospitalizing a patient with depression may be required not only to manage the acute emergency conditions, but also to conduct rehabilitation interventions.

Older people with depression may require inpatient care under the following circumstances:

1. During the period of acute disease in a depressed elderly person otherwise capable of complete or partial self-care autonomy under normal conditions. After a course of treatment has been completed and after self-care capacity has been restored in such a patient, they are discharged home under constant nursing supervision or are transferred to a day hospital.

2. In case of severe or terminal disease, when the patient needs round-the-clock observation and professional care and treatment. Such patients can be permanently placed in inpatient social care facilities (specialized residential facilities) or have multiple hospitalizations to inpatient medico-social assistance units.

Non-hospital formats of medico-social assistance for elderly patients with depression are becoming increasingly important. This may include a day patient facility, a day hospital, social home care service, outpatient polyclinic service and visiting nursing service.

Regardless of the way care for elderly patients with depression is organized, there are certain mainstay principles of nursing care for people of advanced age. Social workers are providing a great deal of help in shaping medico-social assistance. However, these workers should be acquainted with the fundamentals of care for elderly people with depression. As a rule, the social worker and the nurse are acting together to shape the care of sufficient scope and quality.

The responsibilities of a visiting nurse and a social worker when providing medical care to elderly and senile patients with depression include the following:

1. Follow-up of elderly and senile individuals;
2. Outpatient treatment as prescribed by the physician and disease prevention;
3. Conducting post-recovery rehabilitative interventions or rehabilitation due to age-related functional changes;
4. The study and identification of psychological and mental problems in an elderly patient;
5. Making sure that elderly and senile patients are on a diet that adequately meets their physiological needs;

6. Knowledge of specific considerations of pharmacotherapy in geriatric practice, being able to detect the changes occurring in the body of an elderly patient with drug treatment;

7. Prevention of premature ageing by using non-pharmacological methods.

Currently, an important role should be assigned to integral medicine, whose highest form is family medicine. One of the objectives of family practice is preparing young patients and middle-aged patients to the health changes they may experience late in life.

The entire set of measures aimed at medico-social well-being of elderly and old people with depression can be roughly divided into the following 5 fundamental areas:

1. Medical and organizational measures aimed at timely registration of patients with depression who need medical and social assistance, assessing their needs, providing medical and rehabilitation measures; determining the strategy of management, the stages of providing care and inter-agency collaboration.

2. Psychosocial work (encouragement, development of adaptive capacity with elements of self-care, cooking food, etc.). Psychological assistance should be aimed, first of all, at preparing the older individual to changes in their social status due to retirement, at helping them to cope with the loss of significant other(s) and at helping them adjust to health problems, loneliness and declining capabilities.

3. Patient education in the issues of personal hygiene and residential hygiene, prevention of disease, healthy lifestyle and the harm of self-medication.

4. Recommendations on maintaining labor and social activity: continuing feasible work activity, working at home and being active in social life.

5. Socio-legal preparation: educating the patient on their rights and the healthcare benefits they are entitled to.

In order to increase the efficacy of medico-social care in elderly people with depressive disorders, more attention needs to be paid to the preparation of specialists in the areas of Gerontology and Geriatrics (including postgraduate education of nursing personnel in this specialty), and respect for senior citizens should be cultivated in the society.

CONCLUSIONS

1. Nursing staff should be knowledgeable about identifying, treating and preventing depression in the elderly; therefore, we have studied the issues of diagnosis and treatment of depression in elderly people.

2. This clinical research study of causes and symptoms of depressive mental disorders in elderly patients allowed us to determine the number and percentage of females and males with depression, as well as the number of patients with various factors for development of depressive disorders in an older age.

3. In elderly patients with depression whom we assessed in this research study, we most frequently observed such types of depression as dysthymia, mixed anxious depressive disorder, atypical depression and seasonal depressive disorder.

4. This clinical research study allowed us to define the characteristic features of depression in elderly neurological patients and the principles of its therapy. Adequate management of the underlying neurological disease, the use of effective and safe antidepressants combined with neurotrophic therapy allows for an effective control of depression in the elderly neurological patients.

5. This clinical research study allowed us to define the principles for organization of medico-social assistance in elderly patients with depression and somatic disease. In order to increase the efficacy of medico-social assistance in elderly patients with depressive disorders, more attention needs to be paid to the training of specialists in the fields of gerontology and geriatrics.

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