

# Medico-Psychological Support of Elderly Patients with Somatic Pathology in Doctor-Patient Relations

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## Abstract

The study presents ground for the need to provide psychological assistance to elderly patients with somatic pathology, also it describes the developed model of medical and psychological support for senior patients with somatic pathology and psychological disorders in doctor-patient relations, including psychological consulting algorithm that is a technic tool for treatment and prevention of mental health of geriatric patients. A technique for estimating the effectiveness of the suggested model is given.

**Keywords:** medico-psychological support, elderly patient, somatic pathology, general practitioner, doctor-patient relationship.

## INTRODUCTION

The Second World Assembly on Aging of 2002 adopted Madrid International Plan of Action (MIPA) and Political Declaration, which are obligations for the UN member states to define aging, to recognize it as a priority line for state programs in the 21st century that would help transform the aging society into a more mature not only demographically, but also economically, socially, culturally, psychologically and spiritually. The documents emphasize the need for the formation of public awareness of aging process and the introduction of basic principles of adaptation to this process, in particular – organization of work to provide psychological, medico-social services to elderly and senior people [1].

Over the past five decades, medical and demographic situation in Russia and in the developed countries of the world is characterized by a rapid decay of the population, which causes an increase in the proportion of the elderly (60-74 years) and senility (75-89 years) in the population, as well as high level of chronic noncommunicable diseases and mortality in these categories of population.

According to Demographic Department of the UN and WHO, elderly and senior people make a significant part of the world's population, which is rapidly growing. In 2000 their number was 590 million people, by 2025 (according to the most conservative forecasts) it will double and exceed 1.12 billion people, and by 2050 the number of elderly people will reach 2 billion. Therefore, the proportion of people aged 60 and over, among the world population, will increase from 10 to 22% in the next 50 years ([http://www.un.org/en/development/desa/population/publications/pdf/ageing/WPA2017\\_Report.pdf](http://www.un.org/en/development/desa/population/publications/pdf/ageing/WPA2017_Report.pdf)) [2].

One of the important indicators of medical care quality for elderly patients is preservation of potential for their independent existence and improvement of life quality. The role of general psychological state, caused by the level of neuropsychic tension, providing an adaptive process for solving difficult situations is significant in preserving the ability of a geriatric patient.

In general, older patients are characterized by non-adaptiveness to the effects and consequences of a number of stress factors, which lead to neuropsychiatric disorders, pathological psychophysiological reactions and inadequate (neurotic) behavior. The reasons for such changes are the insufficiency of personal resources of elderly patient for finding adaptive solutions and adaptive response to vital factors [3].

Many elderly patients experience a significant decrease in life quality through age-related lesions of musculoskeletal system, peripheral nervous system and connective tissue,

endocrine, genetic and allergic diseases, malignant neoplasms, severe complications of diseases in cardiovascular system, kidneys and respiratory organs, neurodegenerative cerebral diseases and cognitive disorders, in particular Alzheimer's disease, cerebrovascular pathology, diabetes, etc.

They described situation sets new challenges for the modern healthcare and social protection system, while the most important is the creation and the development of system of accessible and effective medical and psychological support (MPS) for senior citizens.

The urgency of providing MPS to older people, except for modern medical and demographic features, is predetermined by new socio-psychological factors as well. These include, in particular, a significant reduction of relatives' participation in caring for elderly family members because of the decrease in the number of family members, geographical and psychological isolation of generations, which requires additional attention of state institutions and the whole society to this problem.

In connection with the above mentioned, there is a need to find new rational forms of organizing medical and social care for elderly people, to optimize the involvement of general practitioners (GPs) in providing MPS.

It is declared in Russian national guideline on general medical practice that GP diagnoses combining physical, psychological and social aspects. Intervention of a GP contains educational, preventive and therapeutic issues for the purpose of improving patient's health, while the process is characterized by a unique consultative aspect that establishes a long-term doctor-patient relationship through effective communication between the doctor and the patient. In this connection, a doctor deals with health problems in mental, psychological, social, cultural and existential aspects, solving both acute and chronic problems of a particular patient [4, 5].

Practical guideline recommends "to detect mental disorders of vascular genesis (hypertension, atherosclerosis) and other ones, but to treat and carry out rehabilitation by means of small psychotherapy after consulting a specialist, which should be included, as an obligatory element, in the arsenal of knowledge and skills of each doctor". However, the studies have shown that only 2-3% of GP sent such patients to a clinical psychologist or a psychotherapist [6].

## *The ground for the need to provide psychological assistance to elderly patients with somatic pathology*

In senior age, habitual situation often turn into a problem one that cause stress, and a patient tries to overcome it. Overcoming is focused on finding the possibility of changing the relationship between the patient and external stress factors or on reducing emotional experience of a patient and subsequent

distress. In case of excessive long-term neuropsychiatric conditions, disadaptive conditions develop in geriatric patients.

Quite often geriatric patients complain of weakness, increased fatigue, irritability, impatience, weakening or loss of ability to physical or mental stress. A significant place in clinical picture of adaptation disorders is taken by pain: headache, pain in the spine, bones and joints, in abdomen. There may also be an unstable mood, tendency to reduce it with tearfulness, exaggerated touchiness, difficulty with concentration, transient phenomena of monistic weakness with complaints of forgetfulness, difficulties in quickly recalling of necessary things, all these is typical for asthenic state of a person.

As far as social adaptation depends on psychological state of geriatric patients, they are particularly in need of medical and psychological care, as well as solving both medical and social problems [7].

Among the factors of small psychotherapy used by GP, there are such ones that are related to doctor's competence and experience in the field of borderline psychiatry, medical psychology, with characterological features of doctor's personality, style of behavior, compassionate ability, ability to get in touch, to achieve compliance – the need to respect patient's point of view concerning possible methods of treatment, formation of partner relations between the doctor and the patient [8].

Organizational factors also have great influence: limitation of treatment period and doctor's load, availability of conditions for application of certain psychotherapy methods and determination of its place in the overall complex of therapeutic measures [9]. All this requires appropriate skills and a new medical technology tool. At the same time, the results of the studies, presented below, have shown the absence of such a tool and, at the same time, the urgent need for it.

Thus, the study [10] found that  $89.1 \pm 1.2\%$  of GP while consulting elderly patients with somatic pathology have detected violations of their psychological state themselves.  $90.0 \pm 1.2\%$  of doctors believe that impaired adaptive functions influence the course and the quality of treatment of somatic pathology and preservation of independent existence potential ( $82.6 \pm 1.5\%$ ) of patients. Only  $50.4 \pm 2.0\%$  of GP have include psycho-emotional rehabilitation in the plan of treatment and rehabilitation measures, which may indicate their insufficient competence. This is confirmed by the fact that  $92.8 \pm 1.0\%$  of doctors stated the need for tool (algorithm) of diagnosing and correcting psycho-emotional adaptation disorders;  $96.6 \pm 0.7\%$  expressed a desire to acquire additional psychological and psychotherapeutic knowledge for the diagnosis of adaptation disorders, and  $96.9 \pm 0.7\%$  of doctors wanted to master psychological and psychotherapeutic skills for rehabilitation activities in adaptation disorders in elderly patients with somatic pathology, that became the reason for creating a diagnostic algorithm and MPS of these patients.

The existing diagnostic approaches, concerning physical and mental changes in senior age, provide only statement of such fact as revealing pathological psychological age-related changes that could be treated in time and prevented in future.

The study by N. M. Mehailova has showed that in the prevalent number of elderly patients under study neurotic conditions were revealed and they maintained neuropsychic stress in elderly patients with somatic pathology and caused the state of distress, especially of the average intensity level ( $63.5 \pm 3.9\%$ ) that did not have bright manifestations, were not diagnosed and were not corrected. The prolonged stay of the elderly patient in the state of distress, contributed to the development of asthenia, which was found in  $85.9 \pm 2.8\%$  of patients with an average stress level, resulting in an improper distribution of energy, which contributes to burdening of chronic diseases course and increasing

cognitive disorders that lead to the loss of potential of independent existence. Also, high personal anxiety was detected both in the general sample ( $99.2 \pm 0.6\%$ ) and among patients with an average stress level ( $83.3 \pm 3.0\%$ ), which confirms the low ability of social adaptation, especially in the age group of 65-74 years ( $85.2 \pm 4.3$ ) and patients from 75 to 85 years ( $90.0 \pm 5.5$ ) with high stress level, which indicates the need in psychological care, at primary level [11].

#### ***Model of medical and psychological support of elderly patients with somatic pathology in the practice of doctor-patient relations***

To optimize medical-psychological follow-up of elderly patients with somatic pathology, we have developed medical-psychological follow-up model for practical use of GP, which is based on the results of scientific research on neurotic conditions in elderly patients and theoretical study of the causes and possible consequences of their effects.

It is worth noting, that in order to diagnose the effects of stress, which an elderly patient was unable to adapt to, it is necessary to analyze patient's behavior change to negative direction in a short period of time (3-6 months), which has great difference from neuroses and personality characteristics of the patient, acquired during lifetime. In this case, behavior changes should be considered in three important aspects: identifying the subject / object toward which the behavior has been changed, leading emotion and frustration, associated with it. These parameters clearly delineate the patient's problem, informing of his desire and ability, and determining the contradictions which the patient himself cannot cope with, constantly having psycho-emotional stress. However, these very parameters are the indicators of effectiveness of psychological consultation on a particular problem. Thus, a decrease of emotions intensity indicates effective consultation; and frustration decrease, associated with the subject / object that caused the behavior change, confirms that the problem has been solved or the patient has adapted to the problematic consequences of stress factor.

This approach to diagnosis provides doctor with quick understanding of patient's psychological state of any complexity and intensity, and also it provides simultaneous diagnostics and correction of psychological disorder.

Directing a patient to polyvariant, prognostic search for the solution of his/her problem, GP can quickly achieve the decrease in anxiety intensity, at the same time strengthening the result of consulting by his participation in the problems of an elderly patient.

In elderly and senile age, a person directs his/her behavior towards the search for integrity and maturity, which is ensured by the value of its existence and universal human values along with gradual and increasing loss of physical strength. During life period, the main psychological problem is disturbance of person's objectification (identity, self-expression and the patient's acceptance of himself/herself), which is manifested through evaluation of socio-psychological parameters, such as: adaptability, self-actualization, self-evaluation, self-esteem, autonomy, which is provided by locus-control. Correction of their assessment, based on age and real abilities, carried out by a doctor, can have an important healing effect on person's mental state, and can also contribute to patient's own responsibility for his/her health.

While developing the algorithm of psychological consulting during medico-psychological support of elderly patients, we took into consideration the definition of behavior strategy in problem situations that were developed by geriatric patients throughout their life and manifested both in typical neurotic reactions, protective actions, and in specific ways of applying psychological compensation (psycho-correction). Knowledge of these properties directs a doctor to the limits within

which a geriatric patient can admit the change in his/her beliefs as well as psychological and behavioral reaction [12].

The algorithm includes a table of main psychological disorders that occur in adaptation disorder. It contains a list of neurotic states according to the degree of intensity and its imaging, making up the content and structure of the disorder, which allows a doctor to make a conversation in a proper way that will help an elderly patient to understand his inadequate response to stress factor.

Psychological state of a patient, that has been analyzed in details with his participation, makes it possible for both – a doctor and a patient, to see an internal side of a disease and general patient's attitude to his/her life. Proper assessment of the condition (harmonious type of internal picture of the disease) by the patient is the main foundation for compliance formation [13]. Having identified the reasons for unadapted behavior formation, a doctor gets the opportunity to help an elderly patient to form such a behavior that will lead to his/her adaptation.

Algorithm of psychological consulting during medico-psychological support of elderly patients with somatic pathology and psychological disorders is a sequence of the following steps:

Step 1. Identify negatively altered activity of patient's behavior.

Step 2. Establish a subject or an object, the activity of the organism is directed to – manifestation of the motive to the change of patient's behavior.

Step 3. Identify the leading emotion – fear, anger, resentment, which regulates the dynamics of patient's behavior.

Step 4. Reveal frustration content, which caused the emotion and the change in patient's behavior activity – manifestation of problem situation.

Step 5. Evaluate socio-psychological parameters of patient's personality towards certain frustration: adaptability, self-actualization, self-evaluation, self-esteem, autonomy – locus-control, maturity.

Step 6. Determine the existing pathological psycho-correction and corresponding strategy of patient's behavior (limited, deficit, atypical).

Step 7. Identify the detected violation of patient's psychological state with the structure and manifestations of basic neurotic states in the table of the main psychological disorders that occur in the adjustment disorder.

Step 8. Summarize and reflect the formation of pathological behavior, which has led to adaptation disorder. Develop new, adaptive patient's behavior in a problem situation, having determined the need to acquire new specific skills for analyzing the situation and the behavior.

Step 9. Plan with the patient specific results to achieve.

Step 10. Evaluate the effectiveness of psychological consulting by reduction level of leading emotion and behavioral response adaptability to the subject or object, the altered activity of the patient's body was directed to, as well as the achievement of the planned result.

An important point in the process of medical-psychological support is involving a patient to joint planning of treatment, informing him/her about mechanisms of functions restoration and his/her possible contribution to the achievement of the planned result.

According to WHO, in case of long-term therapy, adherence of patients to treatment does not exceed 50%, so compliance achievement with elderly patients at psychological level, combined with the formation of the responsibility for the results of treatment, will improve cooperation greatly.

Thus, the algorithm is a technological tool for treatment and prevention of mental health, which is a component of overall health, determining:

- negatively altered behavior, which indicates disadaptation;
- problem situation through frustration with a leading emotion;
- assessment of patient's health level at the time of treatment;
- patient's opportunities to overcome illness;
- patient's role and participation in treatment;
- strategy and tactics of patient's behavior related to his/her illness;
- simultaneous changes of patient's self-assessment of his/her socio-psychological parameters; attitude to preceding treatment; level of one's own responsibility for one's health; and also reduces anxiety intensity;
- helps a patient to see an internal picture of the disease and general attitude to his/her life; plan and achieve patient-determined result of treatment.

#### **Methods for assessing the effectiveness of medico- psychological support model for elderly patients with somatic diseases**

Evaluation of medical efficiency of the use of medico-psychological support model in elderly patients with somatic diseases should be carried out in several stages.

Stage 1. Forming subjects' sample.

Among general subjects' sample, having neurotic conditions, 30 people were selected.

The cause for selecting elderly patients ( $\geq 65$  years of age), who seek medical help for any physical illness, should be some neuropsychic strain, that, according to PSM-25 psychological stress scale, corresponds to average or high level (101-150 points or 151- 200 points respectively).

Stage 2. Examination of neurotic complaints severity.

Patients should have additional examination by method of quantitative evaluation of neurotic complaints in dynamics [14], which consists of examining complaints severity of leading neurotic conditions (asthenia, vegetative disorders, neurotic depression, hysterical response type, obsessive-phobic disorders, anxiety in various combinations) by the beginning of psychological consulting, and then it should be repeated thrice in dynamics: first time – in a week after psychological consulting, second – in 2 weeks after first check, the third –final in 2 months after consulting.

Conducting dynamic monitoring will allow to assess stress level as well as presence and severity of complaints, typical for neurotic disorders, both during the initial examination and in dynamics; it will also allow to use these indicators to assess the effectiveness of medical and psychological doctor's consulting of a patient.

Stage 3. Calculation of medical and social efficiency coefficients.

Medical efficiency coefficient of (MEC) can be calculated by the following formula:

$$P_m = n_m / N^m,$$

where  $P_m$  – medical efficiency coefficient;  $n_m$  – number of adapted patients;  $N_m$  – total number of the surveyed.

MEC calculation will give an idea to what extent the use of medico-psychological support model lead to regression of leading emotion and the recovery of patient's condition to adapted or significantly reduced stress level.

It is necessary to develop a questionnaire, which the patients are to complete twice – at the first meeting and in 2 months, to study social use of medico-psychological support model algorithm for elderly patients with somatic pathology. In questionnaire, patients should be suggested closed questions on assessing patient satisfaction with their life quality, which include "yes"/"no" answer. The number of positive and negative responses can determine the degree of patient's satisfaction [15, 16, 17].

Social efficiency coefficient of (SEC) is calculated by the following formula:

$$P_c = n_c / N_c,$$

where  $P_c$  – social efficiency coefficient of;  $n_c$  – number of positive answers;  $N_c$  – total responses number.

SEC indicators in dynamics will give an idea of patient's satisfaction with life quality in comparison with the period before and after realization of medico-psychological support model.

### CONCLUSION

We propose a model of medico-psychological support for elderly patients with somatic pathology, which provides medico-psychological assistance at the level available for this category. The task of the proposed model was to provide favorable psychological climate for elderly patients, while providing both medical care and relationships in the society.

The basic segment of medico-psychological support model is the developed algorithm of psychological consulting, which can also be applied to participants in conflict situations for diagnosing and correcting the behavior, that causes neurotic reaction in elderly patients. The algorithm of psychological consulting enables a doctor to analyze psychological state of a geriatric patient in details with his/her participation, to see the internal picture of the disease and the patient's general attitude to his/her life, to identify the causes of unadapted behavior together and to generate behavior that will lead to adaptation.

We believe that the proposed medico-psychological maintenance model for elderly patients with somatic pathology and psychological disorders will lead to the regression of leading emotion, will restore patient's condition to the adaptive one and will lead to the increase in patient's satisfaction with live quality.

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