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MENTAL DISORDERS IN PATIENTS AT GERIATRICIAN ATTENDANCE

Basic Variants and Influence on Social Functioning (The Experience in Russia)**

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Introduction: Data exists showing a significant prevalence of mental disorders in the growing elderly population, but indices have a fairly wide range. This study's aim was to analyze the frequency and variants of such disorders of the elderly in geriatrician attendance and their influence on social functioning.
Material and methods: Of newly-admitted geriatrician patients, 37.2% were found to have deviations at the time of screening (Geriatric Depression Scale, Zung anxiety scale, MMSE and the clock drawing test). Of these 32 patients (24 women) were 69.5 ± 4.4 years old and had somatic illnesses, mainly cardiovascular diseases and diabetes. The detailed assessment included the Neuropsychiatric Inventory Questionnaire, the Clinical Global Assessment, and the Global Assessment of Functioning scales. Statistics were based on Student's criterion (taking into account the normal distribution of the sample data).
Results and their discussion: Fully 93.7% of the disorders met the International Classification of Diseases (10th edition) criteria for adaptation disorder, organic anxiety disorder, recurrent depressive disorder with a moderate depressive episode. Two patients had dementia with confusion (delirium). The significant ranking of the anxiety-depressive disorders can be explained by their prevalence in the elderly population as a whole, the close relationship of such disorders with somatic pathology, and in dementia and psychotic cases, more frequent visits to psychiatrists. About a third of the patients manifested signs of impaired functioning, dependent on the presence of family ($t = 2.9$; $p < 0.05$) and their relationships within the family (the complex ones excluded indices above 70 points of GAF).

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Conclusions: More than a third of newly-admitted geriatric patients have mental disorders, mostly those on the anxiety-depressive depressive spectrum. Biological factors and psychosocial influences are both present represented as their reasons. Social functioning may suffer and highly depends on microsocial environments.

Keywords: elderly age; mental disorders; social functioning; anxiety; depression; geriatrician attendance

1. Introduction

1.1. Context

1.1.1. Background

Currently, the share of elderly people in the populations of most the world's countries has significantly increased. According to WHO data (World Health Organization 2015), in 2000 there were 600 million people at 60 years of age and older, which is almost three times more than this group numbered in 1950 (205 million). In subsequent years, this tendency continued: in 2009, the above-mentioned age class exceeded 737 million people, and according to forecasts, by 2050 that figure will exceed two billion. This trend also concerns Russia, wherein the population's share of the elderly, as in industrialized countries, stands at about 20% (Yarygina & Melentieva 2010).

Thus, the current world situation as a whole is characterized by a permanently increasing rate of the elderly population, and in this context, programs, such as the increasing adaptation of the elderly population, are widely discussed, including those related to the presence of different diseases (Buffel et al. 2014).

All of this makes a wide range of issues relevant for ensuring in old age a life worth living. Meanwhile, this period of life as a rule is characterized by a well-known deterioration in health, including in the fields of mental activity.

1.1.2. Mental disorders in the elderly

Since the middle of the 21st century's first decade, epidemiological studies have established a tendency of increasing prevalence regarding mental disorders among people of the elder age groups. Initially, it mainly affected the primary disease incidence rate and, possibly, was the result of improving methods for identifying this pathology (Beznos & Maksimova 2006; Churkin & Tvorogova 2012). Moreover, in particular, this pathology was related to determining cognitive impairments as a result of extensive examination programs for the elderly and the aged senile (Zakharov 2006).

Nowadays, an increase in not only the primary disease incidence, but also the general prevalence rate of mental disorders among elderly population groups, has been established (Demcheva et al. 2017). In general, in Russia the prevalence of mental disorders among the elderly stands at approximately 27.4%, which is consistent

with global indicators (29.8%) (Ministry of Health of the Russian Federation 2015; Krasnov et al. 2013).

A significant frequency of mental disorders in old age determines the relevance of their systematic research. In this connection, not only studies that are carried out in outpatient and inpatient psychiatric institutions, but also data obtained as a result of the patients' examinations by the geriatrician service, are of considerable interest.

1.1.3. The present state of the problem

Meanwhile, the analysis of how the different types of mental disorders rank in an unorganized population (united only by the territory of residence and age composition) is still insufficiently presented in the literature. A significant scatter of indices characterizes the latest information. So, the frequency of depressive disorders ranges from 10% to 20%, while anxious neurotic disorders – from 5 to 15%, and cognitive decline, including dementia – range from 30 to 60% (Mikhailova 1996; Sluchevskaya 2008).

The same data should become the basis for fashioning solutions containing the best options for monitoring elderly patients affected by mental disorders. And we can also assume that a significant segment of such patients does not need permanent psychiatric monitoring due to the non-psychotic nature of their disorders (Neznanov & Kruglov 2015).

It should be noted that the assessment of the elderly patients' mental status can be difficult, since the appearance of any mental deviation may be considered by the patients themselves and their relatives as simple age-related changes. In particular, it is possible to classify the manifestations of the anxiety-depressive spectrum and a significant deterioration in memory as allegedly 'the usual signs of oldness'. As a result, the correct diagnosis is very often carried out late (Baldwin et al 2002; Dubenko 2008). Accordingly, treatment and rehabilitation measures therefore also begin unreasonably late.

1.2. Aim

The aim of this study was to analyze the mental disorders' rate (according to the experience in Russia) that are detected during geriatrician examinations by using clinical scales and level of social functioning of these patients' assessment.

2. Methods and general characteristics of the studied patients

In the Geriatric Medical and Social Center of St. Petersburg, there was a group of newly admitted geriatric patients that had been previously identified by means of a continuous method during a two-month period of 2020. Patients who signed written informed consents were offered screening tests conducted by a psychiatrist researcher, and then (in case of mental disorder signs) their condition was assessed using more detailed psychometric assessment methods, as well as an examination of

disease data history. Screening techniques included the Geriatric Depression Scale, the Zung anxiety scale, MMSE screening, and the clock drawing test. A further assessment of psychometric indicators was carried out via the Neuropsychiatric Inventory Questionnaire (NPI-Q), the Clinical Global Impression (CGI), and the Global Assessment of Functioning (GAF) scales. The statistical processing of the obtained data included the determination of absolute values and relative values, and the Student criterion was used to compare these values (taking into account normal distribution).

At this stage of the study, 32 patients (37.2%) out of 86 newly-admitted by the geriatrician service were found to have some degree of mental decline and were included in the clinical and statistical development. Of these, 24 (75%) were women, and their average age stood at 69.5 ± 4.4 years.

Until the moment of visiting the geriatrician, none of the patients had been observed by a psychiatrist or psychotherapist; they did not receive systematic treatment with psychotropic medications. At the same time, most of them – 81.3% – took anxiolytics and antidepressants (selective serotonin reuptake inhibitor), prescribed by neurologists or therapists (mainly in connection with complaints of sleep disturbances and increased anxiety), for a short time and with an unstable effect. The patients' somatic confounding factors, as one would expect, were primarily based on the influence of the vascular factor. Thus, in 78.1% of patients, essential hypertension was diagnosed, and 62.5% of the total number of examined patients had data indicating acute cerebrovascular conditions (transitory ischemic attacks and strokes). More than half of the patients (53.1%) showed clinical (confirmed by cardiologists' examinations) manifestations of coronary heart disease. In 50% of the cases, Type 2 diabetes was noted. Finally, indices of a significant decrease in hearing and vision stood rather high (84.4% and 68.8%, respectively).

3. Results

A diagnostic assessment of the revealed psychopathological symptoms was carried out according to the criteria of the International Classification of Diseases (ICD-10). In 13 cases (40.6%), adjustment disorder (F43.2 rubric of ICD-10) was found. The criteria of such a state include subjective distress and emotional disturbance, usually interfering with social functioning and performance, and arising in the period of adaptation to a significant life change or a stressful life event. The most common cause of this in the studied patients was the death of a loved one (usually one of the spouses), which was found in nine cases. The patients experienced the feeling of loss and the inability to adapt to the situation of absence of the closest and beloved person. In four other cases, the adjustment disorder was connected with moving to another residence, where the elderly could not find new companions and had to learn to function in an all new environment.

In two patients (6.3%), a recurrent depressive disorder with a current episode of moderate severity (F33.1 rubric of ICD-10) was found. Stable mood deterioration,

and anxiety characterized such cases, as well as the loss of opportunity for receiving positive emotion from hobbies and usually pleasant former occupations.

Fifteen other patients (46.9%) suffered from organic anxiety disorder (F06.4 rubric of ICD-10) (mainly vascular), as well as vascular-dysmetabolic (due to Type 2 diabetes and cerebrovascular disease) etiology. Such a disorder is characterized by the manifestation of anxiety as the major symptom and is not restricted to any particular environmental situation. Depressive and obsessional symptoms, and even some elements of phobic anxiety, may also be present, provided that they are clearly secondary or less severe. The arising symptoms are the consequence of an organic etiological factor.

In general, these three groups (with adjustment disorder, recurrent depressive disorder, and organic anxiety disorder) formed 93.8% (N = 30) of the total number of patients (N = 32), and the symptoms of the anxiety-depressive depressive spectrum of disorders predominated in the general description of their mental state.

The correctness of the distinction among the indicated diagnostic groups was found, in particular, to be confirmed by the results of their comparison in the average indices of depression and anxiety by the NPI-Q score. The highest rate of depression level (7.5 ± 1.1) was found in recurrent depressive disorder, while in organic anxiety disorder, it was statistically significantly lower (4.7 ± 0.2; $p < 0.05$); the intermediate position between them was occupied by an adjustment disorder with a depression rate of 5.8 ± 0.3 and the same level of anxiety. The latter, in turn, had the highest value in organic anxiety disorder (6.7 ± 0.3) and the lowest in recurrent depression (3.5 ± 1.2; $p < 0.05$).

In connection with the extremely rare group of recurrent depressive disorder among the studied patients, it should be noted that in both its cases a depressive episode was observed for the current period; however, a similar condition was already noted in their history, and it was then developed due to a traumatic situation connected with the loss of a loved one. Moreover, in both cases there had been in fact no visit to a doctor on this occasion, and the degree of the condition itself reduced without special treatment.

Severe cognitive impairment, reaching the level of dementia and complicated by phenomena of mental confusion (delirium), was observed in two patients (6.3% of the total number). These patients' clinical picture revealed signs of motor anxiety and fragmentary visual hallucinations, especially during night time. In this regard, for further examination and observation, these patients were referred to a psychiatrist in the clinical department.

The average value of the disease severity index on a CGI scale was 3.6 ± 0.2, while all patients according to this index were in the range of three to five points.

Among patients exhibiting a predominance of anxiety-depressive depressive spectrum disorders with non-psychotic etiology, an analysis of social functioning was made using the GAF scale. It was found that most of these patients (70%), despite their clinical conditions, had a fairly high level of this index. They retained the ability to exhibit a fairly high activity (of course adjusted for age and especially in the

community-acquired area), but with the safety of their hobbies they showed life satisfaction, found solutions for daily questions, and only in rare cases experienced difficulties, and so, the overall impairment of functioning remained mild. Only a fifth of the patients indicated at least some signs of its deterioration, and only 10% had obvious signs of such a phenomenon.

The comparison of the average GAF scores among patients with different variants of established disorders within the anxiety-depressive depressive spectrum showed the absence of statistically significant differences: This was 77.1 ± 3.2 among the patients with adaptation disorder, 78.7 ± 2.6 with recurrent depressive disorder, and 75.9 ± 2.4 for organic anxiety disorder ($p > 0.05$).

When analyzing the influence of different factors regarding the elderly patients' functioning level at this stage of the study, primary attention in this aspect was paid to the possible influence of the individual's social network. For objective reasons related to the specifics of life in old age, this influence – namely having a family, relatives, or other individual social network – has always been regarded as very significant. The present study's data confirms the corresponding connection. The level of social functioning was characterized by an index above 70 points in GAF scale; i.e. a very satisfactory value, among most (17 of 21) patients having a family or receiving constant support from relatives (*Table 1*; $t = 2.9$; $p < 0.05$).

Table 1
The influence of the family presence factor on indicators of the patients' functioning
(N – number of patients)

GAF score	*Single (N)*	*In a family or with a constant support of relatives (N)*	*Total (N)*
51–70	5	4	9
71–90	4	17	21
Total (N)	9	21	30

At the same time, the psychological connotation of an individual's social network relationships was also significant in this regard. *Table 2* presents an analysis of this issue. It shows that a satisfactory penumbra of relationships with family members, in fact, excluded such a decrease level of functioning (70 points and below), which would at least become noticeable to others.

Table 2
The influence of the nature of relationships between family members on indicators of functioning (N – number of patients)

GAF score	*Family relations assessment (N)*		
	Distressing	*Satisfying*	*Total (N)*
51–70	9	–	9
71–90	9	12	21
Total	18	12	30

4. Discussion

The fact that in an overwhelming majority of cases (93.7%) during geriatrician visits, only moderate (non-psychotic) mental disorders are found seems to be explained by the probability that deeper deviations in mental activity prompt, if not the patient himself, then his relatives, to look for help from psychiatrists, or – with a pronounced lack of readiness for such treatments due to common mental characteristics – from neurologists.

Given the possibility of such non-compliance, one would expect higher values in the frequency of calls to the geriatrician for psychotic phenomena, which in the completed analysis manifested as one of their most frequent options – mental confusion in patients with dementia.

Non-psychotic disorders established among this study's patients can be conditionally combined inside the concept of anxiety-depressive spectrum disorders, although anxiety neurotic disorders – traditionally referred to this group of disorders, along with two others represented in the studied patient population – in this case are 'substituted' by an 'anxiety disorder of organic nature', according to the formulation of ICD-10. This fact probably reflects objective trends regarding the elderly in whom cerebrovascular disease, as well as its combination with diabetes, occurs more often than in younger patients, and is manifested by the formation of a variety of neurosis-like (rather than neurotic) manifestations, while signs of moderate cognitive decline exist. The legitimacy for the inclusion of such manifestations – which could be more briefly named as organic anxiety disorder – into the group of disturbances on the anxiety-depressive spectrum, can be justified according to the ICD-10 criteria for this rubricate by the fact of their full coincidence with the one presented in the neurotic section (manifestations of which are constantly included into the anxiety-depressive disorders). In this regard, we can take into account the common feature of such an umbra effect for a variety of psychopathological symptoms that occur in this age. It is also reasonable to assume that a significant proportion of these patients (in the total number of patients who applied for geriatrician service), largely reflects the widespread prevalence of cognitive impairment among the elderly, which, however, does

not become a reason for visiting a doctor. Only when the combination of cognitive and affective features appears, although moderately expressed, but creating a certain mental deviation phenomenon, does such an occasion directly arise for patients and their relatives.

Depressive disorder is known as one of the most common types of mental deviations found among elderly people. In this regard, the rarity of identifying such disorders among patients included in this study requires a meaningful explanation. It should be assumed that, at least in part, the specific situation of visiting a geriatrician determines this rarity when, apparently, mental disorders in themselves do not stand as the leading cause of the visit, and are not entirely clear to either the patient or his relatives as a mental disorder and are otherwise combined with a complex of phenomena related to old age's somatic pathology and adverse psychosocial aspects. In this regard, it is indicative that in both cases of the examined patients, the diagnosis of recurrent depressive disorder was ascertained precisely by a psychiatrist who carried out the investigation, when taking into account anamnestic information about an already existing similar state in these patients. Geriatricians had diagnosed a 'depressive mood' but the previous similar state was only assessed in context of a need for a psychiatrist's consultation. Moreover, obtained data about similar episodes in the past did not establish their diagnosis of the disorder as a 'recurrent' type.

In this regard, it should also be noted that in all those patients examined with disorders of the anxiety-depressive spectrum at the stage of the geriatric examination, 'senile asthenia' ('senile fragility') was stated. This assessment is widely used in the practice of specialists of this profile; however, it can be assumed from the materials of this work that from a psychiatric point of view, the determination of the anxious component of the patient's condition is affected marginally, since the majority of those included in the study had a pronounced component of such manifestations.

The uniformity of the mental state's influence on the functioning of patients in the established diagnostic groups is most likely due to their similarity: that is, belonging to the same degree of psychopathological phenomena severity. Besides, the features of the GAF scale also play a prominent role in this regard. This scale, as well as a number of other tools for assessing the social functioning of the mentally ill, along with the prevailing characteristics of this particular aspect in the instructions for determining the desired data, also has a brief indication of the severity of psychopathological symptoms and its possible visibility to others. At the same time, it should be noted that in many aspects, this combination of partially clinically severe symptoms, and mainly the social characteristics of patients' ability to function, is inevitable and reflects the close relationship these aspects retain in the assessment of the mentally ill in general.

The data about positive impact on patients' functioning by the factor of living in the family or with the constant support of relatives appear to be expected. In this regard, it's known that loneliness remains among the common and, as a rule, adverse factors of late age. First of all, it seems necessary to consider these data in the general context of the psychological and emotional aspects of elderly people's life. In this

case, objective trends contribute to the well-known limitation of the circle of communication, and the subject of experiences associated with this circumstance largely dominates the patients' thoughts (Woods 1999; Zozulya 2000). Moreover, such thoughts, in fact, affect various aspects regarding the formation of a situation of loneliness, which in relation to older people should be considered in a broader sense. This is not only a specific absence of relatives or even a situation of separation from young family members. More significant is the conscious loneliness in connection with misunderstanding microsocial relationships or being in openly conflicting ones. It is these unfavorable conditions that violate the adaptation to the natural contact restriction that comes with age. It is quite understandable that in cases when affective manifestations are present in the mental state – including within the framework of the options established in this work – the factor under consideration has a direct effect on the possibilities of compensation, which are manifested especially in patients' functioning levels. Therefore, it is no coincidence that the nature of microsocial relationships is significant, which is reflected in higher functioning indices with their favorable character. At the same time, among some patients living in a family exhibiting a warm attitude towards them, a tendency existed to seek excessive help from relatives in performing everyday functions, although at least partially this was explained by periods of decompensated concomitant somatic pathology. All this stresses that not only the timely appointment of medicines, but a psychotherapeutic correction of these conditions, as well, is needed.

5. Conclusions

More than a third of patients newly-admitted by geriatricians have mental disorders, mostly those of the anxiety-depressive spectrum. Among the reasons of these phenomena, biological factors (the formation of organic changes in the brain due to age and somatogenic influences) and psychosocial influences, are both represented. The relatively satisfactory level of social functioning of such patients can still suffer, however, and is at the same time significantly dependent on the presence of a positively tuned individual's social network.

This data stresses the need of a systematic and complex – pharmacological and, especially, psychotherapeutic – approach to prolonged socio-medical activities, carried out for the study's discussed elderly patients.

In the context of an interdisciplinary approach to the problem, the need for the systematic sustainment of a primary psychiatric training of geriatricians is clear, as is the use of simple, but informative, psychometric assessment instruments in their practical work.

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