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DYNAMICS ASSESSMENT OF PSYCHOPATHOLOGICAL CHARACTERISTICS OF NEGATIVE SYMPTOMS IN SCHIZOPHRENIA

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Summary

The aim of the study. To determine the dynamics of the psychopathological structure and severity of negative symptoms depending on the stage of the disease in patients with negative symptoms in schizophrenia in order to improve the diagnosis and treatment of patients with schizophrenia.
Materials and methods: 252 patients with negative symptoms of schizophrenia took part in the study: 83 patients with the first episode of schizophrenia, 88 patients with schizophrenia in a state of exacerbation, and 81 patients with schizophrenia in a state of remission. A comprehensive approach, which consisted from clinical-psychopathological, psychometric (Scale for Evaluating Negative Disorders, G. V. Logvinovych, 1990) and statistical research methods, were used in the study.
Results. Features of the dynamics of negative symptoms in patients with negative symptoms in schizophrenia at different stages of the disease were established: patients with the first episode of schizophrenia were characterized by mild quantitative and qualitative impairments in the emotional sphere, slight quantitative and qualitative changes in the associative sphere, and mild quantitative impairments in the volitional sphere in combination with moderate qualitative changes in the volitional sphere. Patients with schizophrenia in a state of exacerbation were characterized by moderate quantitative impairments of the emotional sphere and manifested distortion of the emotional sphere, manifested quantitative and qualitative impairments in the associative sphere and minor quantitative and qualitative impairments of the volitional sphere. Patients with schizophrenia in a state of remission were characterized by moderate and manifested quantitative and qualitative impairments in the emotional-volitional sphere and moderate quantitative and qualitative impairments in the associative sphere.
Conclusions. The obtained data can be used to establish diagnostic criteria for patients with negative symptoms in schizophrenia, depending on the dynamics of the disease.

Keywords: **negative symptoms, schizophrenia, clinical-psychopathological analysis, first episode of schizophrenia, schizophrenia in a state of exacerbation, schizophrenia in a state of remission**

INTRODUCTION

Schizophrenia is a severe mental disorder that affects approximately 24 million people worldwide [19]. Schizophrenia causes psychosis, is associated with severe disability, and can negatively affect all areas of life, including personal, family, social life, and educational and work activities [5, 9]. The economic costs of treating patients with schizophrenia in developed countries are about 2 % of the national health budget, and 80 % of the amount goes to the care of chronic patients with a predominance of deficit disorders [9].

In recent decades, there has been a trend towards a reduction in the duration of remissions, an increase in hospitalizations due to the presence of negative disorders in the structure of schizophrenia [1, 2, 4]. The incidence of schizophrenia among people of young working age is increasing, as well as the specific weight of rapidly progressive forms with the formation of deep negative changes after the first 2-3 attacks [5]. Negative symptoms (NS) are recognized as significant prognostic factors of the adverse effects of schizophrenia treatment [3]. Negative symptoms lead to an increase in the severity of the disease, are poorly amenable to treatment, and disrupt the functioning of the patient [6]. The limited number of effective treatments for the negative symptoms of schizophrenia represents a major unmet medical need, increasing the burden of schizophrenia [14, 18].

The problem of diagnosing NS in schizophrenia, assessing the role and place of negative disorders, their

influence on the course and prognosis of the disease remains extremely relevant [11, 16]. Despite numerous studies and different approaches, including both the traditional clinical one, which assumes the specificity of negative symptoms in schizophrenia, and the trans-nosological one, which denies this specificity, it should be recognized that psychiatric science is still far from a unified and consistent understanding of negative symptoms [10]. Promising directions for further research are methods aimed at a clear clinical-psychopathological qualification and differentiation of negative symptoms at all stages of the development of schizophrenia, the development of psychometric tools to supplement the clinical assessment of negative symptoms, quality of life of patients.

Therefore, the relevance of the research lies in the high significance of the study of negative psychopathological phenomena for psychiatric practice and the insufficient study of the current state of the specified problem. Therefore, the aim of this study was to investigate the dynamics of the psychopathological structure and the severity of negative symptoms depending on the stage of the disease in patients with NS in schizophrenia in order to improve the diagnosis and treatment of NS in schizophrenia.

MATERIALS AND METHODS

252 patients with negative symptoms of schizophrenia participated in the study: 83 patients with the first episode of schizophrenia (1st group), 88 patients with schizophrenia in a state of exacerbation (2nd group) and 81 patients with schizophrenia in a state of remission (3rd group). Patients were given full information about the study, in accordance with the principles of the Helsinki Declaration of Human Rights, the Council of Europe Convention on Human Rights and Biomedicine, relevant laws of Ukraine and international acts, and were asked to sign an informed consent for participation in the study, which was approved by the ethics committee of the SI «Institute of Neurology, Psychiatry and Narcology of the National Academy of Sciences of Ukraine» (protocol № 26 dated 18.12.23).

The research was carried out at the SI «Institute of Neurology, Psychiatry and Narcology of the National Academy of Sciences of Ukraine» with the support of the Ministry of Health of Ukraine, state registration number 0116U000016, subject code NAMN.DR.2P.16, within the framework of the National Development Program: «To study factors predicting the formation, course and outcome of depressive disorders in order to develop effective means of therapy and rehabilitation».

A comprehensive approach, which consisted in the use of clinical-psychopathological, psychometric (Scale for Evaluating Negative Disorders, G. V. Logvinovych, 1990) and statistical research methods were used in the study. The research results underwent statistical processing using parametric analysis methods. Accumulation, correction, systematization of initial information and visualization of the obtained results were carried out in Microsoft Office Excel 2010 spreadsheets. The description and comparison of quantitative indicators was performed taking into account the distribution, the appropriateness of which was normally assessed using the Kolmogorov-Smirnov test. When confirming the normality of the distribution, the data were described using the arithmetic mean (M) and the error of the mean (m). Fisher's exact method and Fisher's angular transformation were used to assess the reliability of differences. For each gradation of the diagnostic criterion, its contribution to the diagnosis was determined: Kullback's measure of informativeness (MI) was calculated and diagnostic (prognostic) coefficients (DC) were calculated. K. Spearman's rank correlation coefficient was used to reveal the degree of expressiveness of the relationship between two features. The critical level of significance during testing of statistical hypotheses was taken as equal to 0.05.

RESULTS

Clinical and psychopathological analysis included assessment of the distribution of patients by severity of forms, type of course and sometimes the appearance of negative symptoms.

The analysis of the distribution of patients with NS in schizophrenia according to the form of schizophrenia showed that in the 1st group of patients, 25.30 % of patients were diagnosed with simple form of schizophrenia, 19.28 % – with undifferentiated schizophrenia, 18.07 % – with hebephrenic form of schizophrenia, 15.66 % – with paranoid form of schizophrenia and 10.84 % – with residual and catatonic forms of schizophrenia. Residual schizophrenia was recorded in 39.77 % of the 2nd group patients, paranoid schizophrenia in 20.91 % of patients, simple and hebephrenic schizophrenia in 14.77 % of patients, undifferentiated form in 7.95 % of patients, and catatonic form of schizophrenia in 6.82 % of patients. 37.04 % of patients of the 3rd group was diagnosed with residual form of schizophrenia, 24.69 % with simple schizophrenia, 16.05 % with hebephrenic schizophrenia, 11.11 % with paranoid schizophrenia, 6.17 % with undifferentiated schizophrenia and 4.94 % of patients with catatonic form of schizophrenia. Statistical analysis of the distribution of patients with NS in schizophrenia showed that among patients of the 1st group there were more persons with undifferentiated form of schizophrenia (19.28%) than among patients of 2nd and 3rd groups (7.95%, $p = 0.017$, $DC = 3.84$, $MI = 0.22$ and 6.17%, $p = 0.008$, $DC = 4.95$, $MI = 0.32$, respectively), while among the patients of the 2nd and the 3rd groups there were more persons with residual form of schizophrenia (39, 77 %, $p = 0.0001$, $DC = 5.64$, $MI = 0.82$ and 37.04 %, $p = 0.0001$, $DC = 5.33$, $MI = 0.77$, respectively).It should also be noted that among patients with NS in schizophrenia in the remission stage there were more persons with simple form of schizophrenia than among patients with NS

in schizophrenia in a state of exacerbation (24.69 %, p = 0.042, DC = 2.23, MI = 0.11).

According to the type of course of the disease, patients with NS in schizophrenia were distributed as follows: in the majority of patients of the 1st group, an episodic course with an increasing defect (43.37 ± 3.98) % and a continuously progressive course (42.17 ± 3.91) % were established. 13.25 % of patients had an episodic course with a stable defect, and 1.20 % had an episodic relapsing course of the disease. 38.64 % of the 2nd group patients had an episodic course with an increasing defect, 29.55 % had an episodic course with a stable defect, 20.45 % had a continuously progressive course, and 11.36 % had an episodic remitting course. Most patients of the of the 3rd group had an episodic course with an increasing defect (62.96 ± 4.79) %, 19.75 % had an episodic course with a stable defect, 11.11 % had a continuously progressive course, and 6.17 % had an episodic course remitting course of the disease. Comparison of the results made it possible to establish that the continuously progressive course of the disease was more characteristic of patients of the 1st group as compared to the 2nd and the 3rd groups (42.17 %, p = 0.001, DC = 3.14, MI = 0.84 and p = 0.0001, DC = 5.79, MI = 0.90, respectively). Episodic course with a growing defect was more manifested among patients of the 3rd group as compared to patients of groups the 1st and the 2nd groups (62.96 %, p = 0.005, DC = 1.62, MI = 0.16 and p = 0.001, DC = 2.12, MI = 0,26 respectively).The episodic course with a stable defect was more manifested among patients of the 2nd group in comparison with the 1st and the 3rd groups (29.55 %, p = 0.005, DC = 3.48, MI = 0.28 and p = 0.049, DC = 1.75, MI = 0.09, respectively). The episodic remitting course prevailed among patients of the 2nd group as compared to the 1st group (11.36 %, p = 0.006, DC = 9.75, MI = 0.50).

According to the time of occurrence of negative symptoms, the patients were distributed as follows: in patients of the 1st group, in most cases, the onset of negative symptoms was observed in the initial period (37.35 ± 3.61) % or in puberty (22.89 ± 2.45) %. In 21.69 % of patients of the 1st group, the onset of negative symptoms occurred during the period of manifestation, and in 18.07 % of patients – in a state of remission. In patients of the 2nd group, in the vast majority of patients, the onset of negative symptoms was observed in the state of remission (40.91 ± 3.61) % and in the initial period (38.64 ± 3.48), in 13.64 % of patients NS occurred during the period of manifestation disease, and 6.82 % of patients are in puberty. In the majority of patients of the 3rd group, negative symptoms appeared in the period of remission (49.38 ± 4.39) %, in 27.16 % of persons – in the initial period, in 12.35 % – in the period of manifestation of the disease, and in 11.11 % – in puberty. At the same time, it was established that there were more patients with the onset of negative symptoms at the age of puberty among patients of the 1st group (22.89 %, p = 0.002, DC = 5.26, MI = 0.42 and p = 0.023, DC = 3, 14, MI = 0.18, respectively), while the increase in negative symptoms in remission was observed more often among patients of the 2nd and the 3rd groups (40.91 %, p = 0.0001, DC = 3.55, MI = 0, 41 and 49.38 %, p = 0.0001, DC = 4.37, MI = 0.68, respectively). It should be noted that the onset of NS in the initial period occurred more often among patients of the 2nd group as compared to the 3rd group (38.64 %, p = 0.038, DC = 1.53, MI = 0.09).

For the purpose of a detailed analysis of the dynamics of psychopathological characteristics of negative symptoms in schizophrenia, the Scale for Evaluating Negative Disorders in patients with schizophrenia, developed by G. V. Logvynovych in 1990, was applied. This scale allows to assess the degree of expressiveness and the nature of changes in the emotional, volitional and associative spheres of mental functioning. Symptoms are evaluated in three ranks as slightly expressed, moderately expressed, clearly expressed, as well as quantitative («falling out» symptoms) and qualitative («distortion» symptoms). Symptoms of «falling out» include signs of varying degrees of decline or loss of certain mental functions in the emotional, volitional, or associative spheres. Clinically, they could be manifested by a decrease in the depth and modulation of emotions, apathy, a decrease in energy potential, volitional activity, and an impoverishment of associative processes. In these cases, «banality», stereotypy in speech, slowing of the pace of associative processes, narrowing of the volume and productivity of associations, etc., were observed. Symptoms of «distortion» or qualitative changes of a negative nature were manifested by a violation of the adequacy of response in the affective sphere, a change in motives in the motivational-volitional sphere, logic and hierarchy of values – in the associative sphere. Clinically qualitative changes are expressed by the paradoxical and ambivalence of emotions, ambitendence, parabola, paralogy, violations of the sequence and logic of associative processes, the tendency to form peculiar concepts, etc.

As a result of the study, it was found that quantitative changes in the emotional sphere were slightly expressed in the majority of patients of the 1st group (80.72 ± 4.27) %, moderate impairments of the emotional sphere were observed in 61.36 % of the individuals of the 2nd group, and moderate and manifested impairments – in most patients of the 3rd group ((45.68 ± 4.20) % and (48.15 ± 4.33) %, respectively) (fig. 1). Qualitative changes in the emotional sphere in patients with NS in schizophrenia consisted in the predominance of slight distortion of the emotional sphere in the 1st group (66.27 ± 4.69) %, minimal and moderate distortion of the emotional sphere – in most patients of the 2nd group ((35.23 ± 3.25) % and (38.64 ± 3.47) % respectively), and moderate and significant distortion in the emotional sphere in 3rd group ((58.02 ± 4.69) % and (30.86 ± 3.20) %, respectively). Statistical analysis made it possible to

establish that quantitative impairments of a mild level were more manifested among patients of the 1st group in comparison with the 2nd and 3rd groups (80.72 %, p = 0.0001, DC = 5.96, MI = 1.80 and p = 0.0001, DC = 11.17, MI = 4.16, respectively), moderate level – among patients of the 2nd group (61.36 %, p = 0.0001, DC = 5.93, MI = 1.36 and p = 0.015, DC = 1.28, MI = 1.10, respectively), and manifested – among patients of the 3rd group (48.15 %, p = 0.0001, DC = 11.25, MI = 2.50 and p = 0.0001, DC = 4.23, MI = 0.63, respectively). At the same time, there were more individuals with slight changes in emotional changes conditionally qualified as qualitative («distortion» symptoms) in patients of the 1st group (66.27 %, p = 0.0001, DC = 2.74, MI = 0.43 and p = 0.0001, DC = 7.76, MI = 2.14, respectively), while among the patients of the 2nd and 3rd groups, individuals with a manifested distortion of the emotional sphere prevailed (26.14 %, p = 0.0001, DC = 7.34, MI = 0.78 and 30.86 %, p = 0.0001, DC = 8.06, MI = 1.05, respectively). It was also established that there were more patients with moderate distortion of the emotional sphere in the 3rd group than in the 1st and 2nd groups (58.02 %, p = 0.0001, DC = 3.02, MI = 0.44 and p = 0.005, DC = 1.77, MI = 1.17, respectively).

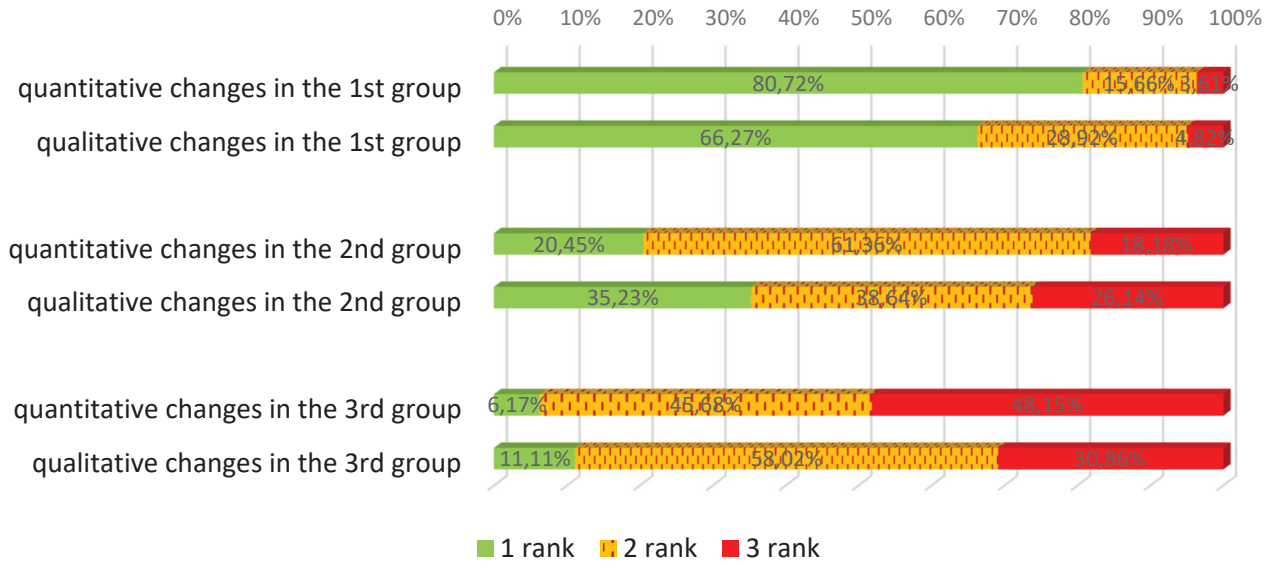

Figure 1. – Dynamics of quantitative and qualitative changes in the emotional sphere in patients with NS in schizophrenia (according to the test of G.V. Logvinovich)

The analysis of the volitional sphere in patients with NS in schizophrenia revealed that the patients of the 1st group were predominated by individuals with mild quantitative impairments (51.81 ± 4.38) % and moderate qualitative changes (59.04 ± 4.60) % (Fig. 2). In patients of the 2nd group, quantitative impairments of the 1st rank were recorded in 44.32 % of patients, the 2nd rank – in 31.82 % of persons, and the 3rd rank – in 23.86 % of patients. The distribution of qualitative changes in the volitional sphere was also practically the same in patients of the 2nd group: in 32.95 % of persons, changes of the 1st rank were determined, 34.09 % – the 2nd rank and 32.95 % – the 3rd rank. In most patients of the 3rd group, moderate and significant quantitative ((44.44 ± 4.14) % and (55.56 ± 4.63) %, respectively), and qualitative ((53.09 ± 4.54) % and (48.15 ± 4.33) %, respectively) impairments of the volitional sphere were found out.

It was proved that quantitative disorders of mild expression were more frequent among patients of the 1st and the 2nd groups (51.81 %, p = 0.0001, DC = 7.78, MI = 1.68 and 44.32 %, p = 0.0001, DC = 7.10, MI = 1.27, respectively), while among patients of the 3rd group there were more persons with moderate (44.44 %, p = 0.038, DC = 1.36, MI = 0.08 and p = 0.031, DC = 1.45, MI = 0.09, respectively) and manifested (55.56 %, p = 0.0001, DC = 5.50, MI = 1.10 and p = 0.0001, DC = 3.67, MI = 0.58, respectively) quantitative impairments of the volitional sphere. Patients of the 2nd group differed from individuals of the 1st and the 3rd groups by the predominance of patients with a mild level of volitional distortion (32.95 %, p = 0.018, DC = 2.33, MI = 0.16 and p = 0.0001, DC = 6, 48, MI = 0.83, respectively), while in the 1st and the 3rd groups there were more patients with a moderate level of distortion of the volitional sphere (59.04 %, p = 0.001, DC = 2.38, MI = 0.30 and 53.09 %, p = 0.006, DC = 1.92, MI = 0.18, respectively). At the same time, it was determined that the patients of the 3rd group differed from the 1st and the 2nd groups by the predominance of patients with a manifested level of qualitative impairments of the volitional sphere (48.15 %, p = 0.0001, DC = 3.46, MI = 0.46 and p = 0.017, DC = 1.65, MI = 0.13, respectively).

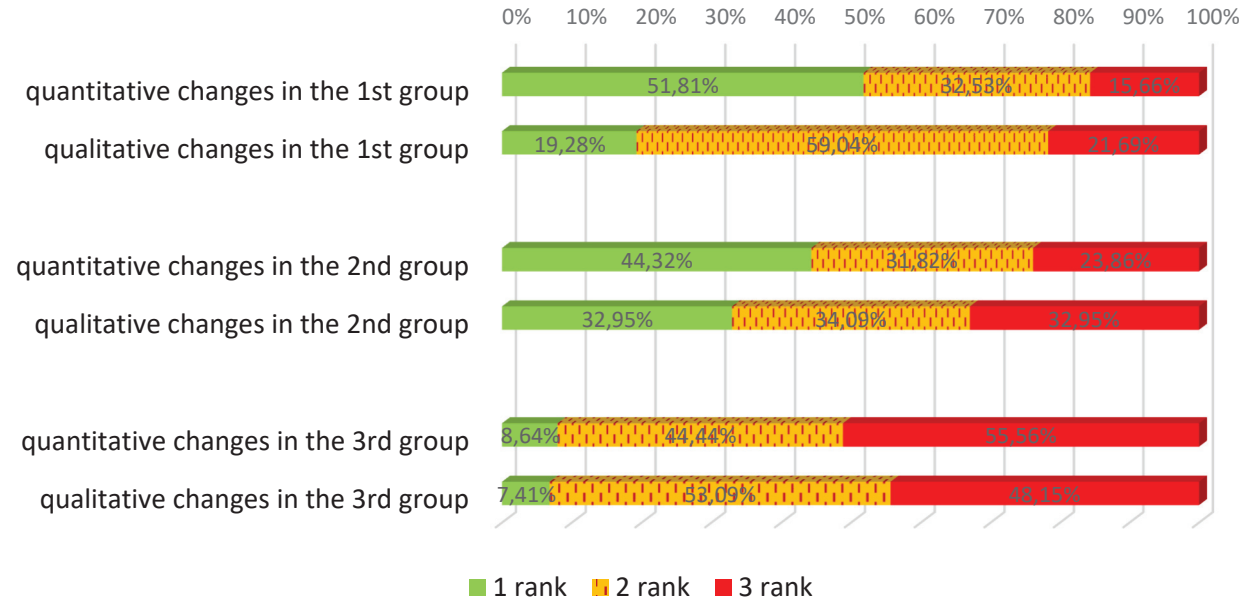

Figure 2 – Dynamics of quantitative and qualitative changes in the volitional sphere in patients with NS in schizophrenia (according to the test of G.V. Logvinovich)

The assessment of the associative process in patients with schizophrenia made it possible to determine that quantitative ((51.81 ± 4.38) % and (42.17 ± 3.91) %, respectively) and qualitative ((49.40 ± 4.28) % and (46.99 ± 4.17) %, respectively) changes of the 1st and the 2nd rank prevailed among the patients of the 1st group (fig. 3). Among the patients of the 2nd group, quantitative and qualitative changes of the 3rd rank were more often determined (59.09 ± 4.34) % and (50.00 ± 4.06) %, respectively). Quantitative and qualitative disorders in the associative sphere in most patients of the 3rd group acquired moderate values (2nd rank) ((55.56 ± 4.63) % and (55.56 ± 4.63) %, respectively).

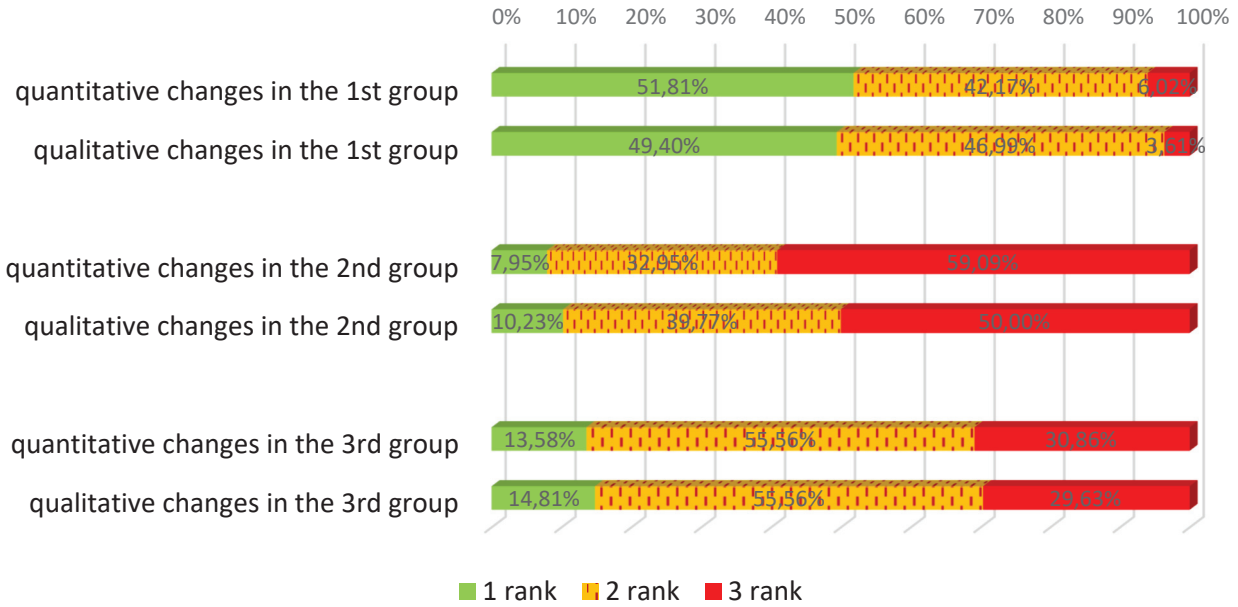

Figure 3. – Dynamics of quantitative and qualitative changes in the associative sphere in patients with NS in schizophrenia (according to the test of G. V. Logvinovich)

A mathematical comparison of groups made it possible to determine that there were more patients with quantitative changes of the 1st rank in the associative field in the 1st group (49.40 %, p = 0.0001, DC = 8.14, MI = 1.78 and p = 0.0001, DC = 5.81, MI = 1.11, respectively). The predominance of moderate impairments was more typical for patients of the 3rd group (55.56 %, p = 0.029, DC = 1.20, MI = 0.08 and p = 0.002, DC = 2.77, MI = 0.26, respectively), and manifested impairments – for patients of the 2nd group (59.09 %,

p = 0.0001, DC = 9.92, MI = 2.63 and p = 0.0001, DC = 2.82, MI = 0.40, respectively). A similar trend was revealed in the qualitative changes of the associative sphere: patients of the 1st group were distinguished by the predominance of a mild level of distortion of the associative sphere (46.99 %, p = 0.0001, DC = 6.84, MI = 1.34 and p = 0.0001, DC = 5.23, MI = 0.90, respectively), patients of the 3rd group – by the predominance of a moderate level of distortion (55 .56 %, p = 0.0001, DC = 9.14, MI = 1.19 and p = 0.003, DC = 2.27, MI = 0.23, respectively) and patients of the 2nd group – by the predominance of the manifested level of qualitative changes in associative sphere (50.00 %, p = 0.0001, DC = 11.41, MI = 2.65 and p = 0.003, DC = 2.27, MI = 0.23, respectively).

DISCUSSION

The problems associated with the identification of factors affecting the nature, severity, and rate of growth of negative disorders, which are formed within the framework of an endogenous process, remain one of the most debatable issues in psychiatry [3, 10]. At the same time, according to most scientists, the severity of negative changes is largely determined by the rate of progression of the disease, its clinical presentation, and the age of onset of the disease [3, 5, 15]. The influence of the frequency of attacks, the duration of inter-attack periods, therapeutic interventions, and the nature of productive symptoms are still considered as debatable issues [5, 13, 17].

In the clinic of schizophrenia, pathognomonic symptoms or symptoms of the first rank are considered to be a triad of negative or deficit manifestations: emotional changes, decreased volitional activity, and impaired association [8, 12]. The considered triad is most clearly manifested in periods of remission or extinction of acute psychotic manifestations of the endogenous process. In such periods, it is easier to determine the nature and degree of expressiveness of the manifestations of the specified triad, however, most often, disorders in the spheres of mental activity under consideration begin to form already in the period initial disorders of the schizophrenic process.

The results of our study showed that the greatest differences in the degree of severity and nature of the manifestations of negative disorders are observed at different stages of the formation of the disease, that is, at its initial stage, during the period of exacerbation and in the state of remission. Similar research results were obtained by S. Galderisi, who proved that in episodic and continuous types of the course of the disease, negative disorders differ in the degree of severity of symptoms, in the breadth of coverage of the emotional, volitional, and associative functions involved in the pathological process, due to the predominance of qualitative or quantitative changes [6, 7]. In addition, negative disorders are largely correlated with the severity of productive psychopathological manifestations and the progressiveness of the course of the disease [1].

To assess the factors associated with negative symptoms in schizophrenia at different stages of the course of the disease, a correlation analysis was performed with the calculation of correlation coefficients, which made it possible to determine that psychopathological characteristics are the most significant for the formation of negative symptoms. Thus, among patients with the first episode of schizophrenia, the main contributors to the development of NS in schizophrenia were the onset of NS in puberty (r = 0.611), the presence of a non-differentiated form of schizophrenia (r = 0.547), mild quantitative and qualitative emotional impairments (r = 0.856 and r = 0.745 respectively) and associative (r = 0.681 and r = 0.607, respectively) spheres, and slight quantitative (r = 0.758) and moderate qualitative (r = 0.713) impairments of the volitional sphere.

Among patients with NS in schizophrenia in a state of exacerbation, the appearance of NS in the initial period (r = 0.781), episodic remitting course (r = 0.718), residual form of schizophrenia (r = 0.672), manifested distortion of the emotional sphere (r = 0.679), manifested quantitative (r = 0.782) and qualitative (r = 0.709) impairments in the associative sphere, slight quantitative (r = 0.643) and moderate qualitative (r = 0.601) impairments in the volitional sphere.

Among patients with NS in schizophrenia in remission, the main contributors to the development of NS were the appearance of NS in remission (r = 0.715), residual (r = 0.682) and simple (r = 0.633) forms of schizophrenia, an episodic course with an increasing defect (r = 0.608), moderate distortions of the emotional (r = 0.804), associative (r = 0.755) and volitional (r = 0.748) spheres, manifested quantitative impairments of the emotional (r = 0.682), associative (r = 0.783) and volitional (r = 0.739) spheres.

CONCLUSIONS

1. The clinical and dynamic characteristics of the manifestation of negative symptoms in patients with schizophrenia were established:

a) most patients with the first episode of schizophrenia (1st group) were characterized by a predominance of simple (25.30 %) and undifferentiated forms of schizophrenia (19.28 %, p ≤ 0.017); the predominance of an episodic course with an increasing defect (43.37 %) and a continuously progressive course (42.17 %); the onset of negative symptoms in the initial period (37.35 %) and in puberty (22.89 %, p ≤ 0.023);

b) the majority of patients with NS in schizophrenia in a state of exacerbation (2nd group) were characterized

by the predominance of the residual form of schizophrenia (39.77 %, p = 0.0001); the predominance of an episodic course with a stable defect (29.55 %, p ≤ 0.049) and episodically remitting course (11.36 %, p = 0.006); the appearance of negative symptoms in the initial period (38.64 %, p = 0.038) and in remission (40.91 %, p = 0.0001);

c) the majority of patients with NS in schizophrenia are in remission (3rd group) were characterized by the predominance of residual (37.04 %, p = 0.0001, DC = 5.33, MI = 0.77) and simple (24.69 %, p = 0.042, DC = 2.23, MI = 0.11)) forms of schizophrenia; the predominance of an episodic course with an increasing defect (62.96 %, p ≤ 0.005, DC ≥ 1.62, MI ≥ 0.16); the appearance of negative symptoms in remission (49.38 %, p = 0.0001, DC = 4.37, MI = 0.68).

2. Features of the dynamics of negative symptoms in patients with NS in schizophrenia at different stages of the disease were established:

a) NS of patients with the first episode of schizophrenia (1st group) were outlined by: mild level of quantitative and qualitative impairments of emotional sphere (80.72 %, p = 0.0001, DC ≥ 5.96, MI ≥ 1.80 and 66.27 %, p = 0.0001, DC ≥ 2.74, MI ≥ 0.43, respectively); by insignificant quantitative and qualitative changes in the associative sphere (49.40 %, p = 0.0001, DC ≥ 5.81, MI ≥ 1.11 and 46.99 %, p = 0.0001, DC ≥ 5.23, MI ≥ 0.90 respectively); slight quantitative impairments of the volitional sphere (51.81 %, p = 0.0001, DC = 7.78, MI = 1.68) in combination with moderate(59.04 %, p = 0.001, DC = 2.38, MI = 0.30) qualitative changes of the volitional sphere;

b) NS of patients with NS in schizophrenia in a state of exacerbation (2nd group) were described by: moderate quantitative impairments of the emotional sphere (61.36 %, p ≤ 0.015, DC ≥ 1.28, MI ≥ 1.10) and manifested distortion of the emotional sphere (26.14 %, p = 0.0001, DC = 7.34, MI = 0.78); manifested quantitative and qualitative impairments in the associative sphere (59.09 %, p = 0.0001, DC ≥ 2.82, MI ≥ 0.40 and 50.00 %, p ≤ 0.003, DC ≥ 2.27, MI ≥ 0,23 respectively); slight quantitative (44.32 %, p = 0.0001, DC = 7.10, MI = 1.27) volitional impairments in combination with mild (32.95 %, p ≤ 0.018, DC ≥ 2.33, MI ≥ 0.16), moderate (34.09 %) and manifested (32.95 %) qualitative impairments of the volitional sphere;

c) NS of patients with NS in schizophrenia in a state of remission (3rd group) were described by: moderate and manifested quantitative (45.68 % and 48.15 %, p = 0.0001, DC ≥ 4.23, MI ≥ 0.63, respectively) and qualitative (58.02 %, p ≤ 0.005, DC ≥ 1.77, MI ≥ 1.17 and 30, 86 %, p = 0.0001, DC = 8.06, MI = 1.05, respectively) impairments of the emotional sphere; moderate quantitative and qualitative impairments in the associative sphere (55.56 %, p ≤ 0.029, DC ≥ 1.20, MI ≥ 0.08 and 55.56 %, p ≤ 0.003, DC ≥ 2.27, MI ≥ 0.23 respectively); moderate and manifested quantitative (44.44 %, p ≤ 0.031, DC ≥ 1.45, MI ≥ 0.09 and 55.56 %, p = 0.0001, DC ≥ 3.67, MI ≥ 0.58, respectively) and qualitative (53.09 %, p = 0.006, DC = 1.92, MI = 0.18 and 48.15 %, p ≤ 0.017, DC ≥ 1.65, MI ≥ 0.13, respectively) impairments of the volitional sphere.

3. Interrelationships of clinical and dynamic characteristics and psychopathological features associated with negative symptoms at different stages of the course of schizophrenia were established.

Prospects for further research. As a result of the study, the peculiarities of the clinical and psychopathological structure and the severity of negative symptoms in patients with schizophrenia were determined, which can act as diagnostic criteria and predictors of the formation of negative and positive symptoms during the differential diagnosis of patients with schizophrenia and can be taken into account when creating therapeutic and psychocorrective programs aimed at reducing negative and positive symptoms in patients with schizophrenia.

FUNDING AND CONFLICT OF INTEREST

The study was conducted as a fragment of the complex scientific project of the National Development Program: «To study factors predicting the formation, course and outcome of depressive disorders in order to develop effective means of therapy and rehabilitation» (registration number 0116U000016, subject code NAMN.DR.2P.16).

Authors declare that there is no conflict of interest.

COMPLIANCE WITH ETHICAL REQUIREMENTS

The study was conducted in accordance with the principles of the Helsinki Declaration of the World Medical Association «Ethical principles of medical research involving a person as an object of research». The study protocol was approved by the local ethics committee (protocol № 26 dated 18.12.23). All study participants provided informed consent in writing to participate in the study.

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Резюме

ОЦІНКА ДИНАМІКИ ПСИХОПАТОЛОГІЧНИХ ХАРАКТЕРИСТИК НЕГАТИВНОЇ СИМПТОМАТИКИ ПРИ ШИЗОФРЕНІЇ

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Мета: визначити динаміку психопатологічної структури та вираженості негативної симптоматики залежно від стадії захворювання у хворих на шизофренію з негативною симптоматикою з метою вдосконалення діагностики та лікування хворих на шизофренію.
Матеріали та методи: у дослідженні взяли участь 252 пацієнта з негативною симптоматикою шизофренії: 83 хворих з першим епізодом шизофренії, 88 хворих на шизофренію у стані загострення та 81 хворий на шизофренію у стані ремісії. У дослідженні використовувався комплексний підхід, який полягав у використанні клініко-психопатологічних, психометричних (Шкала оцінки негативних розладів, Г. В. Логвинович, 1990) та статистичних методів дослідження.
Результати. Встановлено особливості динаміки негативної симптоматики у хворих з негативною симптоматикою при шизофренії на різних стадіях захворювання: хворі з першим епізодом шизофренії характеризуються легкими кількісно-якісними порушеннями в емоційній сфері, незначними кількісно-якісними змінами асоціативної сфери, легкими кількісними порушеннями вольової сфери в поєднанні з помірними якісними змінами вольової сфери. Хворі на шизофренію у стані загострення характеризуються помірними кількісними порушеннями емоційної сфери та вираженим спотворенням емоційної сфери, вираженими кількісно-якісними порушеннями асоціативної сфери та незначними кількісно-якісними порушеннями вольової сфери. Для хворих на шизофренію у стані ремісії були характерні помірні та виражені кількісно-якісні порушення в емоційно-вольовій сфері та помірні кількісно-якісні порушення в асоціативній сфері.
Висновки. Отримані дані можуть бути використані для встановлення діагностичних критеріїв хворих з негативними симптомами при шизофренії в залежності від динаміки захворювання.

Ключові слова: **негативні симптоми, шизофренія, клініко-психопатологічний аналіз, перший епізод шизофренії, шизофренія у стані загострення, шизофренія у стані ремісії**