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ASPECTS OF PATIENT PSYCHOBIOLOGICAL CHARACTERISTICS OF TREATMENT PROCESS

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Abstract

In this article , temperament is the character of a person The information obtained from R. Cloninger's questionnaire is presented. Also, the problem of completeness of therapeutic treatment in somatic diseases and related theories and concepts are interpreted, the fact that the main problem has not been directly studied, the relevance of this issue, the psychological characteristics of the patient, the clinical characteristics of the disease, the characteristics of the treatment program, the influence of social factors and the factors of the organization of medical care. done

Keywords: R. Cloninger questionnaire , temperament, compliance with therapeutic treatment, psychological characteristics of patients , treatment programs

Introduction

It is known that the problem of patients' commitment to the ongoing treatment process, that is, the problem of following and fulfilling the doctor's recommendations and instructions, is very relevant for modern medicine and is recognized as a global problem of practical medicine [2,3,7,10]. Even if the evidence-based clinical research results of the new drugs recommended for practice show 100% effectiveness, these results are not confirmed in daily real medical practice, and their effectiveness does not exceed 60% [7,8,13]. It is known that one of the priorities of modern medicine is to achieve high efficiency and ensure safety of the treatment process [6,7]. It is possible to achieve rational and safe pharmacotherapy by choosing the drugs based on the characteristics of the specific patient and the disease in him, forming a personal dosage regimen of the selected drug, as well as by implementing the recommended drug in accordance with the doctor's instructions.

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Nowadays, there are all the possibilities to carry out accurate and correct diagnosis of diseases. For their treatment, the selection of drugs based on the individual, including genetic characteristics of the patient's organism, the use of highly effective drugs with a low risk of side effects, the group and types of drugs, and sufficient stocks. However, despite this, it is recognized as a big problem that diseases, especially chronic ones, are of social importance, and the intended and expected results cannot be achieved in their treatment. At this point, the issue of patient adherence and compliance to the treatment process is considered an important problem for world practical medicine.

It is known that the implementation of rational pharmacotherapy by ensuring the effectiveness and safety of the treatment process is a complex and laborious process. According to our view, it consists of a step-by-step process through three separate components, which is a harmony of the dialectic of the doctor-drug-patient relationship. The doctor develops personal treatment schemes for the patient based on the characteristics of the disease and the individual patient (characteristics of the patient's genotype and phenotype). The main factor in this is the doctor, the result of his activity depends on medical knowledge, skills and professional experience. The second component is the patient, who is the consumer of the doctor's professional activity. The third component is medicine, which connects the doctor and the patient. The final result, that is, the effectiveness of the treatment, is determined by the nature, content and quality of these components, and the establishment of an integral relationship between them. The model of rational pharmacotherapy that we have described is essentially a " **philosophy of effective and safe pharmacotherapy** . "

Therefore, if the doctor forms personal pharmacotherapy schemes based on his knowledge and experience, and the drug is considered as a tool with its specific pharmacological properties, it becomes clear that the patient is its "passive" consumer. In this dialectic, the patient component becomes unique and complex. Because the disease is the same, the patients are different and do not have a standard course of the disease. Awareness of one's own disease, feeling the degree of possibility of treatment, belief in the result of treatment, and the level of conscious active participation in one's treatment process are different, proving the complexity of the patient component. At this point, the patient must understand and realize the nature of the disease, the possibilities of treatment through drugs (coping), understand the goals and tasks of the treatment, believe in its results, ensure active participation in the treatment process (compleins),

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and follow the doctor's recommendations and instructions. is to achieve. This ensures the formation of a unique psychology in the patient and reveals the meaning and essence of " **psychology of pharmacotherapy" .**

Thus, the most complex and little-studied component of the rational pharmacotherapy model presented above is related to the patient, and the effectiveness of the treatment is evaluated by the patient's adherence to the treatment process.

It is known that the level of patient adherence to the treatment process depends on many factors, including demographic (patient's age and sex, education, race, income, etc.), related to the drug and treatment regimens (number of pills, its size and taste, packaging, duration and cost of treatment, side effects, etc.), related to the disease (presence and degree of manifestation of disease symptoms), related to the patient (awareness of the existing disease and its consequences, as well as the risk of harm to health, understanding of treatment options, motivation of the patient and family members, participation in decision-making, etc.), with the patient-doctor relationship related factors (the state of the meeting between the patient and the doctor, the attitude of the doctor to the patient and the existing disease in him, the completeness of the information in the communication, etc.).

Among the factors mentioned, the most complex are those related to the patient, which derives from the psychological portrait of the patient. It is formed in the section of its mental components such as character and behavior. Therefore, this factor is of great importance in forming adherence to the treatment process at the intended level [8,9]. Therefore, the study of the patient factor in ensuring high adherence to the treatment process requires the study of the characteristics of the patient's character and the identification of the psychobiological processes involved in the formation of this mental component.

It is known that a person's temperament and character are elements of his character and can be used to evaluate the patient's commitment and compliance to the treatment process. Also, due to the fact that they have a genetic basis, by evaluating them, it is possible to predict the level of adherence of the patient to the treatment process and to implement the necessary approaches. Because in most cases the obtained results are on the border of temperament types, the possibility of assessing the patient's belonging to his specific temperament type is limited. At the same time, the genes that ensure the exact genetic control of the types of temperament determined by these methods have not been identified.

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In recent years, studies have been conducted aimed at substantiating the hypothesis of the connection between the activity of the monoaminoergic system of the brain or its structures with the individual mental characteristics of a person [11,12,13]. R. According to Kloninger, various processes related to the adaptation of the individual organism to the environment, including its temperament , are related to the functions of the brain's amygdala, hypothalamus, stria-pallidar and other limbic system structures , while its character traits depend on the activity of the hippocampus and cerebral cortex [11,13]. According to another hypothesis, temperament is formed in the form of inhibition, activation, dependence and determination of behavior associated with the activity of various monoaminoergic systems of the brain [18,19,20]. It is based on the activity of the dopaminergic, serotoninergic and noradrenalergic systems. Naturally, there are specific genes that control these systems, and by studying them, it is possible to determine and evaluate the characteristics of the patient's character and character.

Based on the above, in this study, we aimed to study and evaluate the characteristics of the patient's character and character related to the types of monoaminergic system of the brain through the questionnaire of R. Cloninger. Such an approach to the problem opens up the possibility for us to determine the priority brain monoaminoergic system by evaluating the patient's personality and character types and genotyping the patient by the genes that control this system.

Research Materials and Methods

337 patients aged 20 to 80 years with hypertension participated in the study. 2 of them are under 20, 17 are between 21 and 30, 19 are between 31 and 40, 32 are between 41 and 50, 88 are between 51 and 60, 126 are between 61 and 70, 47 are between 71 and 80, and 6 are 80. consisted of older patients. 225 of the patients participating in the study were women and 112 were men. The diagnosis of the disease in patients was determined on the basis of generally accepted diagnostic standards and protocols, and in about 3/2 of them, the course of the disease was complicated, and in the rest, the course was uncomplicated.

Individual mental characteristics of patients were studied by R. Cloninger's personality and character questionnaire [9,11,18,19]. Temperament and Character Questionnaire (TCI) is a psychodiagnostic method developed by Robert Cloninger based on the psychobiological model of personality. This questionnaire

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S.N. Adapted to Russian by Enikolopov and A.G. Efremov [4], O.M. Razumnikova [9], and N.A. Almaev and L.A. Ostrovskaya [1].

According to R. Kloninger, 4 types of temperament, i.e. "Novelty Seeking", "Danger Avoidance", "Incentive Dependence" and "Determination" are distinguished, and the types of brain monoaminergic system are associated with the priority meeting of systems related to dopamine, serotonin and noradrenaline. Depending on the level of activity of these systems, the noted types of temperament are manifested in higher and lower levels.

Through T. Cloninger's questionnaire, personality types such as "Self-directedness", "Cooperativeness" and "Self-improvement" are determined.

The obtained data were processed by the method of variational statistics.

The Obtained Results and Their Discussion

The data obtained as a result of the research show that the studied patients have different temperament types according to R. Cloninger.

The data in Figure 1 show that 44.5% of patients with high blood pressure had a high level of novelty-seeking temperament, and 55.5% had a low level of temperament. It is known that the high manifestation of this type of temperament is characterized by a high tendency of a person to actively respond to new stimuli that lead to motivation. They always feel the need for new emotions, they are characterized by high search activity. It has also been found that this type of temperament is associated with the activity of the dopaminergic system [17]. So, there is a slight difference between the higher and lower manifestation of this type of temperament (according to R. Kloninger) in the studied patients, and it is noticeable that the percentage of patients with weaker dopaminergic system activity is higher.

The difference in the level of manifestation of the "Danger Avoidance" type of temperament is evident among the patients we study, and its high manifestation is almost 2 times more common among patients (Figure 1). This type of temperament (according to R. Kloninger) is characterized by a tendency to inhibit behavioral reactions to aversive stimuli, and is manifested by the emergence of pessimistic feelings in a person in front of future problems, fear of uncertainties. This type of temperament is associated with the activity of the serotoninergic system. The obtained results show that among the patients we study, the manifestation of the individual mental characteristic in the form of "Avoidance of

danger" is at a high level, and the activity of the serotonin system is high in most patients.

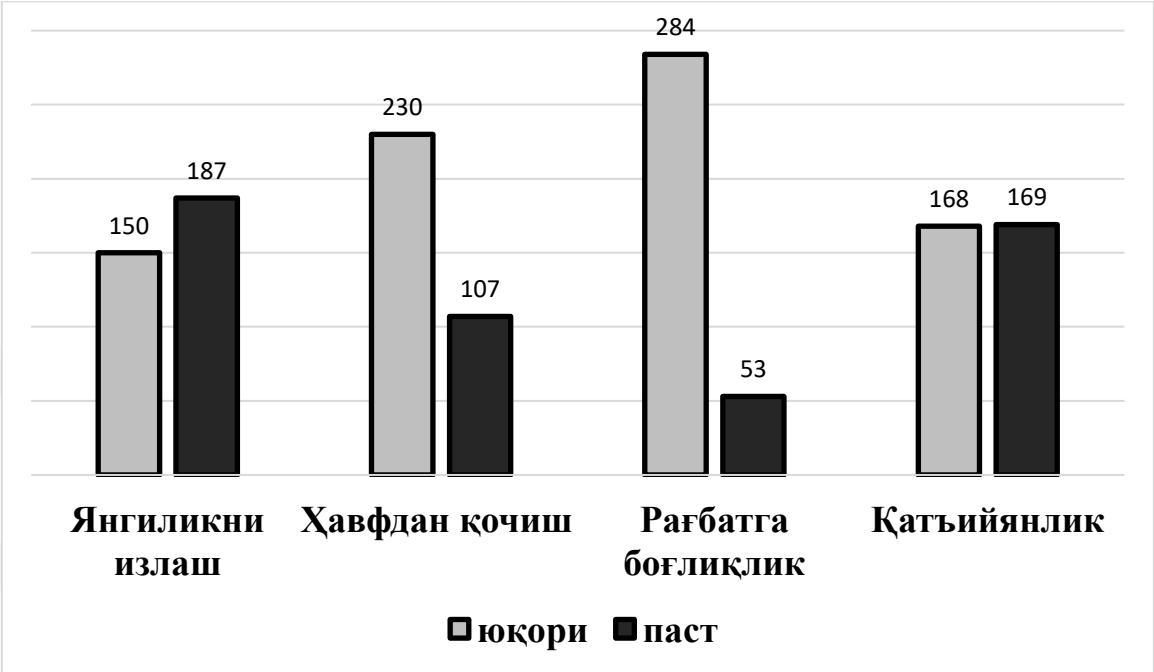

Figure 1. Meeting of temperament types according to R. Cloninger in patients with blood pressure.

*-R <0.05 in cases of high manifestation of temperament types.

According to R. Cloninger, another type of temperament is "Incentive dependence", which is characterized by social dependence or attachment to the power of others as a type of behavior related to the continuation of the person's approach [19]. Character formation in the form of "stimulus dependence" is inextricably linked with the noradrenaline system.

In the group of patients we are studying, this type of temperament is highly expressed in most patients. In this group, patients with this type of temperament are found almost 5 times more often than patients with a lower level of "Incentive dependence" (Fig. 1). So, among the studied patients, the percentage of patients showing behavior related to noradrenaline activity is high.

The type of temperament associated with "Determination" is also manifested in high and low levels in the patients we examined, and their percentage is almost the same among patients. In this case, one out of every two patients showed a high level of "Determination" and one out of every two patients showed a low level.

Thus, the conducted analyzes are based on the fact that, according to R. Cloninger, temperament types and their levels are different in patients with blood pressure disease and are related to the priority of brain monoaminoergic system types.

It is also possible to evaluate personality types through R. Cloninger's "Psychobiological Model of Personality" [15]. In this case, the type of character that includes such features as self-awareness, self-awareness, and self-awareness, the type of character that focuses on evaluating individual differences in relation to other people and in accordance with them. Different types are distinguished, such as "cooperativeness", and "self-improvement", which is related to the spirituality of the individual, the awareness of recognizing everyone as an important, inseparable part of a single whole.

The results of the analysis carried out in this direction are presented in Figure 2.

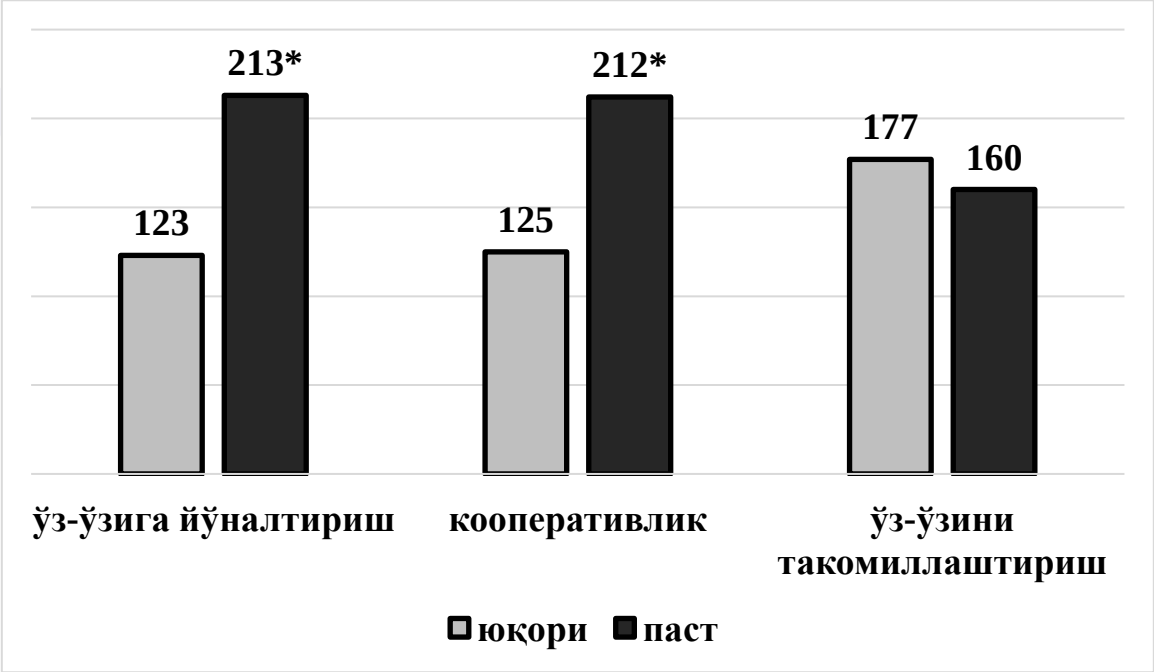

Figure 2. Meeting of character types according to R. Cloninger in patients with blood pressure.

*-R <0.05 in cases of high manifestation of temperament types.

As can be seen from Figure 2, the type of personality focused on "self-orientation" in the studied patients occurs at a lower or low level twice as often as compared to its occurrence at high levels. This is exactly the case for the personality type associated with "cooperativeness" (Figure 2). Therefore, patients suffering from blood pressure disease in most cases are individuals who do not have the character to show sufficient self-direction and cooperation. It is noticeable that

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they have limited opportunities to show character traits such as controlling, adapting and managing their behavior in specific situations, self-awareness in these conditions, and evaluating differences by comparing the specific situation with others and drawing purposeful conclusions from it. At the same time, in the group of patients under our study, it was found that one out of every two patients has a high level of manifestation of the characteristic of "self-improvement" (Fig. 2).

Thus, the analyzes conducted in this direction also showed that patients with blood pressure have different character types and levels of manifestation. In this case, most patients seem to have insufficient self-awareness, comparison with others, adaptation, self-control and management. It is clear that strengthening these feelings has a positive effect on improving the efficiency of treatment of patients and their recovery.

It is known that in the assessment of individual psychobiological characteristics, the assessment of character traits through the analysis of their different levels of manifestation is important and allows to determine the priority links of the biological foundations of the individual's psyche. Taking this into account, we conducted a comparative analysis of the levels of manifestation of temperament types according to R. Cloninger in the studied group of patients.

The results of the analysis conducted in this direction are reflected in Figures 3 and 4.

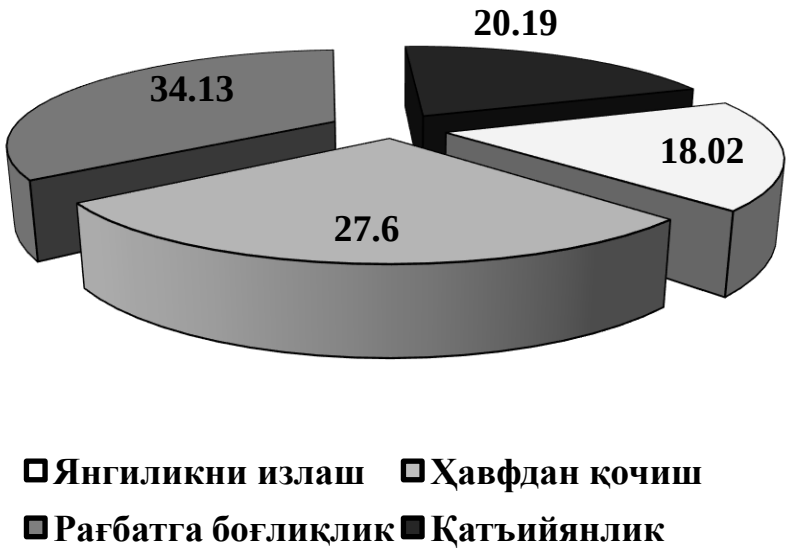

Figure 3. Percentages (%) of high manifestation of temperament types according to R. Cloninger in patients with blood pressure.

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As can be seen from the data presented in the figure, among the highly expressed temperament types, the highest share corresponds to the type of character characterized by "Incentive Dependence". The lowest share is characteristic of the type of behavior associated with "Newness Seeking". If the high level of manifestation of temperament symptoms is based on the activity of the brain monoaminergic system [14], relatively high activity in the group of patients under our study is explained by the priority of the noradrenaline-related system.

At the same time, the highest share among the types of behavior manifested at a lower level corresponds to the type of behavior associated with "Seeking novelty". Therefore, the activity of the dopamine-related system was the lowest among the patients involved in the research.

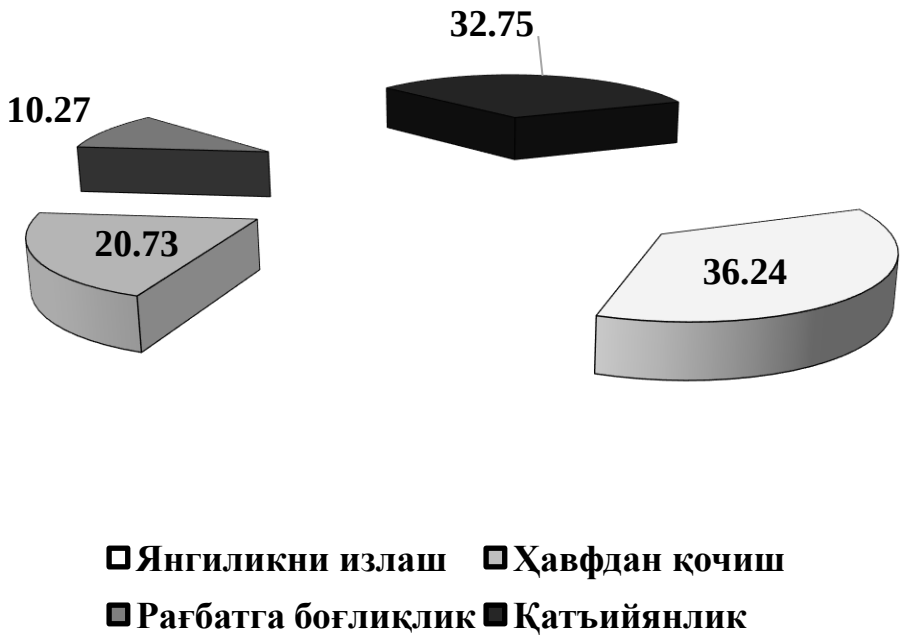

Figure 4. Percentages (%) of lower manifestation of temperament types according to R. Cloninger in patients with blood pressure.

At the same time, the highest share among the types of behavior manifested at a lower level corresponds to the type of behavior associated with "Seeking novelty". Therefore, the activity of the dopamine-related system was the lowest among the patients involved in the research.

From the data presented in Figure 4, it can be seen that the highest share among the lower-expressed temperament types corresponds to the type of character characterized by "Seeking novelty" [17], and the relatively lower activity in the group of patients under our study is explained by the system related to dopamine.

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In the data presented above, it is reflected that the frequency of meeting and the degrees of visibility of the types of personality temperament in the group of patients we are studying are different (Fig. 2). However, in order to determine the role of personality types in the patient's treatment process, especially the contribution of his support to the ongoing pharmacotherapy, it is appropriate to determine the proportion of meeting these character types. The results of the analysis in this direction are presented in Figures 5 and 6.

Figure 5 shows the results of the comparison of the shares of patients with high manifestation of the three types of personality that we are analyzing.

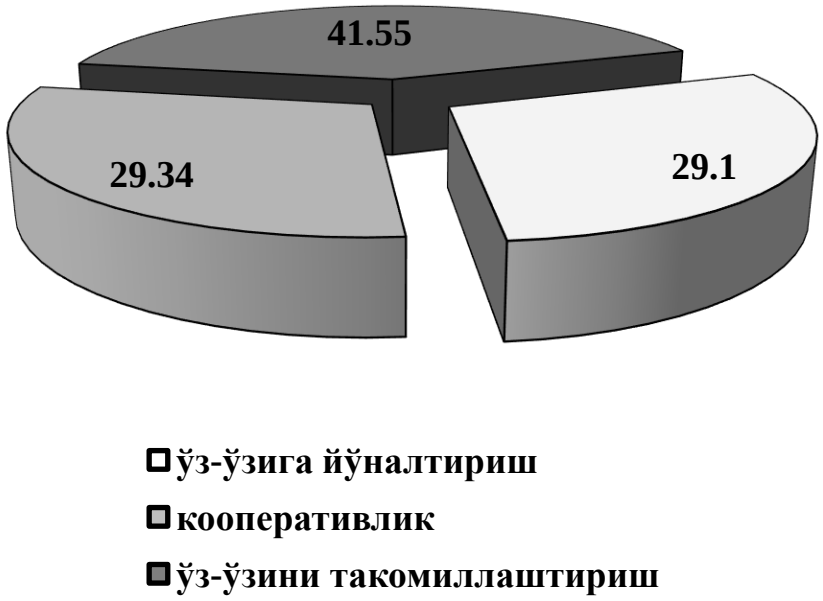

Figure 5. Shares (%) of high manifestation of character types according to R. Cloninger in patients with blood pressure.

From the data in the picture, it can be seen that among the analyzed character types, the largest share corresponds to the type of self-improvement, and it is found in about 5/2 of the patients under observation. It is clearly visible that the cases of high manifestation of the types of personality with signs of self-management and cooperation have almost the same share. Therefore, most of the patients we study have a type of character that is related to the spirituality of the individual, characterized by the awareness of recognizing everyone as an important, indivisible part of a single whole. Consequently, individuals with these character traits are more likely to develop commitment to certain processes, including treatment.

Figure 6 shows the proportion of patients who showed lower levels of personality types under analysis. From the given data, it can be seen that the character type manifested in self-directedness and cooperativeness is at the same level in this level, and their share is about 33.0% more than the character type manifested in the form of self-improvement. Therefore, among the patients included in the research, it is shown that the percentage of patients with a character characteristic of adapting to their own goals and ideas, self-control and understanding, and evaluating individual differences in relation to and in accordance with other persons is less.

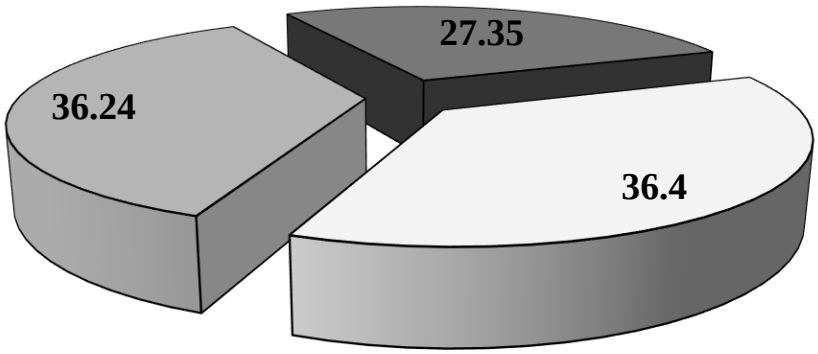

Figure 6. Percentages (%) of low manifestation of character types according to R. Cloninger in patients with blood pressure.

Summary.

Thus, the data obtained as a result of the research and their analysis show that in one study, patients with blood pressure disease have different types of temperament and character and the degree of manifestation of their symptoms. It also shows that the activity of brain monoaminergic system types is different based on the determined personality diversity and their priority types are reflected in the degree of manifestation of temperament and character traits in the patient.

It is known that a person's adaptation to the external environment, functioning in society, and self-expression in certain situations are formed on the basis of

various manifestations of his character, behavior and character traits. At the same time, it reflects his spiritual portrait. The human psyche, together with his biology, forms a whole in harmony. This balance of dependence is the essence of his mental and physical health. Such an approach to the studied issue can serve to open up new opportunities for practical medicine. Here, the problem of the patient's adherence to the treatment process is of particular importance. After all, the patient's deep awareness and understanding of the existing disease, the possibility of treatment and belief in its outcome, as well as his active participation in the goal of his treatment, depends on his character and other mental qualities.

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