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## FEATURES OF EMOTIONAL DISORDERS IN STUDENTS WITH DISORDERS OF THE CARDIOVASCULAR SYSTEM

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**Summary.** In the article the features of the current state of emotional development disorders and psychological maladjustment of students with disabilities, diseases of the cardiovascular system. The study was conducted at Kharkov City Hospital in the Student Mental Health Center students. The study involved 153 students from cardiovascular diseases (78 students with disabilities who have congenital heart disease and 75 students with somatoform autonomic dysfunction). The main aspects of the study of disorders of adaptation of students with disability are the psycho-emotional state, motivational orientation of the individual, personal characteristics and quality of life. On the basis of these results has been developed and implemented a program of medical and psychological treatment for this group of patients.

**Key words:** cardiovascular diseases, psycho-emotional disorders, quality of life, students with disabilities, anxiety, depression.

### Introduction

The relevance of research. The problem of health of students is one of the most difficult and priorities at all stages of the development of society [1, 2]. A special social status, specific conditions of work, life and lifestyle of students distinguish them from all other categories of the population and make this group very vulnerable socially, exposed to negative factors of social life. Therefore, efforts to preserve and strengthen their health do not give long-term success and cause the need to find optimal ways to manage the health of students. The significance of this problem is determined by its national importance, as only healthy physically and morally generation can provide a progressive and progressive development of society, its security and international prestige [3].

Moreover, the improvement of young people, the development of prevention programs considered a priority for the World Health Organization, most of the countries – participants of the international program C1NDI [4]. High mental and psycho-emotional stress, perception and processing of diverse information under time pressure, the disparity hard work and good rest, especially during sessions, extensive use of computer technology in the educational process are forming factors, provoking the emergence and development of psychosomatic diseases in young adults [5]. All of the above calls for a particularly well thought-out system of medical and social services and increased attention on the part of educational institutions and health authorities to conservation, enhance and sustain the health of students [6, 7].

Especially topical, this is a problem in the contemporary situation, characterized by a significant decrease in quality of life for the

majority of the population and, above all, its socially vulnerable groups, which include students as well as reforms in the health system, accompanied by radical changes in the organization of medical and social preventive care. The ongoing transformation of the situation have changed for the better, reduce implementation guarantees for free medical care, its preventive orientation that led to the social exclusion of students, an increase of chronic disease and disability students in higher education [3]. Changes in the health status of young people are alarming not only physicians, but also government officials [8].

In addition to the negative trends in public life, for the formation of health of students is very important way of life associated with the separation from home, unsettled life, low material security, waste and malnutrition. A role play age characteristics of this population group, namely the lack of experience, lack of responsibility for their health and underestimating its importance, as well as emotional perception of life events, increased susceptibility and propensity to bad habits. Increased frequency of individual risk factors for chronic non-communicable diseases. Many authors have noted a particularly sharp increase in their not only in adults but also in children and youth [9].

In modern socio-economic conditions of university education is carried out against the background of high uncertainty of the life prospects of young people. University temporarily protects from the difficulty of finding their place in life, just for a short period removes the need for entry into a competitive relationship with the professionals and other young professionals. However, this time the students – a special period in human life, and, above all, is a period of sudden collision with

a completely unknown problems that must be solved student himself [5, 10].

Adaptation is a dynamic form, the direct process of adaptation to environmental conditions, the violation of which leads to maladjustment; on the other – property of any living self-regulatory system, which determines the stability of the conditions of its environmental effects [7]. Adaptation of students – a complex phenomenon associated with the restructuring of behaviors, and often personality. For some, this process ends unfavorable, as evidenced by the screening of students in the first semester. The process of adaptation of students to the university in modern conditions extends over the entire period of study, which is isolated and separate «critical points», corresponding to the different stages of study, they require maximum attention to the student's personality, as the load on the adaptive resources during these periods is highest. In every period of adaptation to the university requires the mobilization of mental and physical resources of man. Hence, changes in mental, psycho-physiological, physiological functions and personality characteristics that determine the success of adaptation and adaptability as the property of the person [4].

A number of scientists considers urgency psychoprophylactic programs and support the youth of today: Osipova A., Elkonin D., Belichevoy S., Bozovic L., Maximova N. [5]. The need to develop new approaches to the diagnosis and correction of the manifestations of a disadaptation of, the need for a systematic approach to their analysis is explained by the fact that the state of disadaptation covers not only individual links of human functioning, but also the success of the activities of the whole person.

#### The purpose of the study

On the basis of psycho-emotional disorders, personality characteristics, motivational orientation and condition of the quality of life of students with disabilities in cardiovascular disease to develop a system of medical and psychological treatment.

#### Materials and methods

The study was conducted on the basis of student Kharkiv City Hospital Mental Health Center students. The study involved 153 students from cardiovascular disease (78 disabled students with congenital heart disease (CHD) and 75 students from somatoform autonomic dysfunction (SAD). Students with disabilities with congenital heart defects and students somatoform autonomic dysfunction accounted for the main research group.

Assessment of the emotional sphere was carried out using the procedure of «self-

assessment scale of situational and personal anxiety Ch. Spilberger» adapted Y. Hanin and «Beck Depression Inventory» (Beck Depression Inventory, 1961.), motivational orientation study was carried out using techniques T. Ehlers: methods of diagnosis to the individual motivation avoidance of failure and success. Personality traits were studied using multivariate personality questionnaire FPI. (I. Farenberg, H. Zarg, R. Gampel). Also analyzes the quality of life of the students enrolled in institutions of higher education with the help of psychodiagnostic method QL «SF-36 Health Status Survey.

#### Results of the study

The first phase analyzed the emotional-affective sphere of patients with cardio-vascular diseases. The results obtained level of reactive anxiety and trait anxiety displayed in table 1.

**Table 1**  
The level of reactive anxiety and trait anxiety of patients with cardio-vascular diseases

The level	Group 1, n=78		Group 2, n=75	
	Abs.c.	%±m	Abs.c.	%±m
Reactive anxiety				
The high	36	<b>46,20±5,64</b>	57	<b>76,00±4,90*</b>
Temperate	22	28,20±5,09	10	13,30±3,92*
The low	20	25,60±4,94	8	10,70±3,56*
Personal anxiety				
The high	16	20,60±4,57	62	<b>82,70±4,36*</b>
Temperate	49	<b>62,80±5,47</b>	9	12,00±3,75*
The low	13	16,60±4,22	4	5,30±2,58

Note:

\* – Significant differences in rates of group 1, at  $p > 0,05$

\*\* – Significant differences in rates of group 1, at  $p > 0,01$

In the group of students with disabilities with congenital heart disease (CHD) in 46,20% ± 5,64 attended high reactive anxiety, at 28,20% ± 5,09 – a moderate reactive anxiety and 25,60% ± 4,94 – low level. Personal anxiety in group 1 at 62,80% ± 5,47 had a moderate level, from 20,60% ± 4,57 – there was a high level of anxiety and 16,60% ± 4,22 – low.

In group 2 was significantly more pronounced indicator of high levels of reactive anxiety – at 76,00% ± 4,90 (at  $p \leq 0,05$ , regarding the performance of the Group 1), at 13,30% ± 3,92 – was obtained moderate anxiety and at 10,70% ± 3,56 – low.

Thus, students with disability from CHD high reactive anxiety prevails over the level of personal anxiety; the students in Group 2 with somatoform autonomic dysfunction prevalent high as reactive anxiety and trait anxiety.

Then analyzed the resulting level of depression in patients with cardiovascular disease, displayed in table 2.

**Table 2**  
The level of depression in patients with cardiovascular diseases

The level	Group 1, n=78		Group 2, n=75	
	Abs.c.	%±m	Abs.c.	%±m
Pronounced depression	13	16,70±4,22	38	<b>50,70±5,77*</b>
Moderate depression	56	<b>71,80±5,09</b>	27	36,00±5,54*
Mild Depression	4	5,10±2,49	10	13,30±3,92
Lack of depression	5	6,40±2,77	-	-

In Group 1 71,80% ± 4,22 expressed mild depression, severe depression at the 16,70% ± 4,22, mild depression at 5,10% ± 2,49 and 6,40% ± 2,77 – the absence of depression. In group 2, students with somatoform autonomic dysfunction was significantly high rate of severe depression – at 50,70% ± 5,77 (at  $p \leq 0,05$ , regarding the performance of the Group 1), at 13,30% ± 3,92 – was moderate depression and 10,70% ± 3,56 – low.

Patopersonological characteristics of patients with cardio-vascular diseases is reflected in table 3.

**Table 3**  
Average statistical data multifactor personality questionnaire in patients with cardio-vascular disease (multifactorial personality questionnaire FPI (I. Farenberg, H. Zarg, R. Gampel)

Scale	Group 1 n=78	Group 2 n=75	$p \leq 0,05$
	$\mu \pm m$	$\mu \pm m$	
Neuroticism	4,09±1,08	<b>11,10±2,51*</b>	***
Spontaneous aggression	5,27±1,28	<b>10,10±1,67*</b>	***
Depressive	<b>9,09±1,92</b>	<b>10,30±2,18</b>	
Irritability	5,36±1,22	<b>9,27±1,6*</b>	
Sociability	<b>10,10±1,83</b>	<b>10,27±1,81</b>	
Poise	<b>8,91±1,67</b>	2,54±1,15*	**
Reactive aggression	2,72±1,35	<b>8,18±1,64*</b>	***
Shyness	4,27±2,09	5,54±2,23	** / ***
Openness	<b>7,27±1,71</b>	5,91±1,67	
Extraversion / introversion	<b>9,72±1,17</b>	10,20±1,76	
Emotional lability	<b>10,70±1,48</b>	<b>10,60±1,55</b>	
Masculinity / femininity	<b>8,72±1,81</b>	<b>4,63±1,77*</b>	***

For Group 1 was characterized by depression (9,09 ± 1,92), communicative (10,10 ± 1,83), balance (8,91 ± 1,67), openness (7,27 ± 1,71), extroverted focus (9,27 ± 1,17) and emotional lability (10,70 ± 1,48). This group is characterized by the presence of depressive symptoms in behavior, emotional state, in relation to themselves and to the social environment. Also, high scores on a scale of emotional lability indicate instability of the emotional state, which manifests itself in frequent mood swings, irritability, lack of self-control.

For Group 2 students with somatoform autonomic dysfunction characterized by the severity of the following scale: neuroticism (11,10 ± 2,51), spontaneous aggression (10,10 ± 1,67), depression (10,30 ± 2,18), irritability (9,27 ± 1,60), communicative (10,27 ± 1,81). In general, the contingent surveyed characterized by emotional instability with predisposition to affective response, impulsive behavior, aggressive attitude to the social environment and expressed the desire to dominate.

Learning level of motivation to the success of students with special needs at the 46,20% ± 5,64 had a moderate level, from 28,20% ± 5,09 – average at 25,60% ± 4,94 – low, high levels absent. In the group of students with similar distribution SAD observed indicators of motivation to succeed: prevailed moderate level of motivation to achieve success with the 76,00% ± 4,90, at 13,30% ± 3,92 – average and 10,20% ± 3,56 – low. Significantly higher levels of motivation of avoiding failure prevailed in the group of students with SVD (82,70 ± 4,36) with respect to the results of the groups with CHD (with  $p \leq 0,05$ ).

Analysis of the data allows us to estimate the social and psychological state of the problem of the contingent of students with disability. Assessment of the socio-psychological status was evaluated using the «SF-36 Health Status Survey». A significant decrease in quality of life of students with disabilities with congenital heart defects and students of somatoform autonomic dysfunction. Particularly noted the decline in the physical characteristics of the state that students with disabilities and students with limited SAD every day and work.

Significant pain intensity reached in the group of students with SAD, was significantly reduced activity and fatigue. Overall condition of the physical functioning of the students turned out to be reduced. The result was expressed by the restriction of social functioning. The findings suggest that restricting physical activity makes the most significant contribution to the reduction in quality of life of students with cardiovascular diseases.

Improving the accuracy of QOL assessment

involves separate analysis of its physical, psychological and emotional and socio-economic components.

Installed violation psycho-emotional sphere of students with disabilities with congenital heart disease, and students from SAD allowed to develop complex psychocorrective measures aimed at stabilizing their condition. This was done by means of rational psychotherapy autogenous (group lessons), cognitive-behavioral therapy (group lessons) and then psychological support.

### Conclusions

The findings suggest that restricting physical activity makes the most significant contribution to the reduction in quality of life of students with disabilities. In a study of the psychological status it was revealed that students with congenital heart disease is an increase in the intensity of the majority of psychological defense mechanisms. This

shows the relevance of mental maladjustment students to stress and of a traumatic situation, coupled with the immediate threat to life. For them, it was characterized by a higher degree of depressive state. While students from somatoform autonomic dysfunction characterized by a high reactive anxiety and trait anxiety. Thus, the findings suggest that the quality of life of students with disabilities with heart defects and students with SAD significantly reduced. Improving the accuracy of QOL assessment involves separate analysis of its physical, psychological and emotional and socio-economic components. The results of psychodiagnostic study of psycho-emotional sphere of students with disabilities, cardiovascular diseases, to develop an integrated, structured model of medical and psychological treatment that has shown to be effective in 73% of cases at the Centre for Mental Health students.

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### ОСОБЕННОСТИ ЭМОЦИОНАЛЬНЫХ НАРУШЕНИЙ У СТУДЕНТОВ С СЕРДЕЧНО-СОСУДИСТЫМИ НАРУШЕНИЯМИ

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**Аннотация.** В статье раскрыто современное состояние проблемы особенностей нарушения эмоциональной сферы и психологической дезадаптации студентов-инвалидов с заболеваниями сердечно-сосудистой системы. Исследование

### ОСОБЛИВОСТІ ЕМОЦІЙНИХ ПОРУШЕНЬ У СТУДЕНТІВ ІЗ СЕРЦЕВО-СУДИННИМИ ПОРУШЕННЯМИ

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**Анотація.** У статті розкрито сучасний стан проблеми особливостей порушення емоційної сфери та психологічної дезадаптації студентів-інвалідів із захворюваннями серцево-судинної системи. Дослідження проводилося на базі Харківської міської студентської лікарні в

проводилось на базі Харківської міської студентської лікарні в Центрі психічного здоров'я студентської молоді. У дослідженні взяли участь 153 студентів із серцево-судинними захворюваннями (78 студентів-інвалідів з вродженими вадами серця і 75 студентів з соматоформною вегетативною дисфункцією). Основними аспектами вивчення порушення адаптації студентів з інвалідизацією є: психоемоційний стан, мотиваційна спрямованість особистості, особистісні особливості та рівень якості життя. На основі отриманих результатів розроблена і впроваджена програма медико-психологічної корекції для даного контингенту обстежених.

**Ключевые слова:** серцево-судинные заболевания, психоемоциональные нарушения, уровень качества жизни, студенты-инвалиды, тревожность, депрессия.

Центрі психічного здоров'я студентської молоді. У дослідженні взяли участь 153 студентів із серцево-судинними захворюваннями (78 студентів-інвалідів з вродженими вадами серця і 75 студентів з соматоформною вегетативною дисфункцією). Основними аспектами вивчення порушення адаптації студентів з інвалідизацією є: психоемоційний стан, мотиваційна спрямованість особистості, особистісні особливості та рівень якості життя. На основі отриманих результатів розроблена і впроваджена програма медико-психологічної корекції для даного контингенту обстежених.

**Ключові слова:** серцево-судинні захворювання, психоемоційні порушення, рівень якості життя, студенти-інваліди, тривожність, депресія.

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## DISORDERS OF PSYCHOLOGICAL ADAPTATION OF PATIENTS WITH IMPAIRED THE LOCOMOTOR SYSTEM

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**Summary.** Investigation of the features of psychological adaptation disorder of patients with disorders of the locomotor system. The kinds of pathologies disorders the locomotor system and attendant non-psychotic mental disorders. Correction of mental disorders, including depression and psychotic level, have this kind of patients depends on the personality characteristics of the patient, the individual psychological defense mechanisms.

**Key words:** violation of the locomotor system, disorders of psychological adaptation.

According to the of WHO in European Region, each year there are about 80 million of accidents, victims are in need of medical care. In Ukraine, the problem of injuries is defined by its high prevalence and serious medical, social and economic consequences. In recent years, great importance is attached to the diagnosis and treatment of mental disorders in somatic diseases. Psychotic disorders come in first place in the frequency of occurrence in the population.

At the present time, the population of Ukraine diseases associated with disorders of the musculoskeletal system, accounting for 85% of the disability country.

The loss or limitation of ability to work as a result of violations of the musculoskeletal system in the adult leads to a certain restructure of the psyche and behavior. The process of adaptation of persons with disabilities in this

group takes a very painful and difficult. This is due not only to the physical suffering, but also with the loss of a great value, often leading to the loss of the meaning of life in general. A person with a disability acquired substantial transformation undergo major components of his personality: worldview, values, motivation, attitude to people and activities, and others.

Persons with acquired disabilities, experiencing strong stress effect and, in most cases, continue to be in a state of chronic stress.

The success or failure of adaptation depends largely on the personal qualities of the disabled. S. Belicheva [1] identifies a number of preconditions that hinder social adaptation: psychobiological conditions, defects individually-psychological, socio-psychological characteristics of the individual, as well as the features of the social situation.