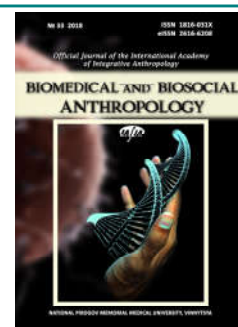




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### Quality of life in patients of specialized cardiology unit

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*The existing methods of evaluation of the state of a patient do not account for all variables in their life. This creates a need to establish a complex approach in assessing a patient's condition, including the integral criterion of their subjective state, the quality of life (QL): physical, social and societal well-being. The evaluation is done using certain surveys. Despite a significant amount of research on the quality of life of patients with cardiovascular disease, the understanding of the link between the illness and factors such as age, sex, diagnosis, and its distinctive features remains vague. The objective of the study is to assess the quality of life of hospitalized patients with cardiovascular disease, depending on their age, sex and diagnosis. 115 hospitalized cardiology patients (59 men and 56 women) were surveyed in the cardiology department of Vinnytsia Regional Clinical Hospital named after Pirogov. The mean age of the surveyed amounted to  $57.71 \pm 1.32$  years. 78 patients were diagnosed with different forms of coronary heart disease (II, III, IV classes of angina, atherosclerotic and postinfarction cardiosclerosis, cardiac arrhythmia and disturbances of impulse conduction), mostly in combination with stage II-III of essential hypertension (EH). Stage II EH without CHD was observed in 17 patients, while 20 patients suffered from different cardiovascular illnesses (myocarditis, pericarditis, cardiomyopathies, heart defects). The control group comprised of 30 healthy individuals with no evident cardiac pathology (17 men and 13 women), the mean age of whom amounted to  $43.26 \pm 15.01$  years. To evaluate the quality of life, the MOS-SF-36 questionnaire has been used, which consists of eight sections, each scaled on 0-100. The higher the score was, the better the state of health was. The validity of the results was determined by employing analysis of variance, namely Student's T-Test. A reliable decrease in the quality of life in all sections of the SF-36 Survey has been found as well as the difference in gender, age, diagnosis, and its distinctive features. The figures of the quality of life during a cardiac disease could be additional informative characteristics that should be used for a better assessment of the health state of the patients and solutions for the efficacy of their treatment.*

**Keywords:** cardiovascular disease's, quality of life, the SF-36 questionnaire.

#### Introduction

Over the past decades, significant growth of interest took place among the clinicians in quality of life (QL), as the current methods of evaluation of patient's condition and efficiency of therapeutic interventions, as a rule, reflect a biological model approach and fail to capture the diversity of human life. This determines the need for wider implementation of the complex approach in the evaluation of patients' condition into clinical standards including integral criteria of their subjective state, namely quality of life (QL), as a measure of their physical, mental and social well-being [16, 22]. In public health, the term "Health-related Quality of life" is more common. When estimating it, both

patient's complaints caused by the disease and concomitant complaints are taken into consideration which allows establishing the effect of a disease on the psychological and emotional states of a patient and their social status [2, 9, 19].

Some studies have found that the QL indices in patients with cardiovascular disease (CVD) make it possible to measure accurately enough the disease effect on the physical, psychological and social functioning of a patient, the effectiveness of treatment, forecasting the clinical course and the outcome of a disease [18, 20, 22]. Thus, when measuring QL in patients with essential hypertension

(EH), a reduction and the reasons for this decline have been identified. It was found that QL is directly related to a patient's volitional control and negatively correlated with emotional instability, suspiciousness, anxiety, social control of behaviour, and stress level [3, 19, 20]. QL in patients with coronary heart disease (CHD) is 2.0-2.5 times lower than that of healthy individuals. This occurs due to a pathological process as well as the intensity of emotional and personal disorders [1, 4, 13, 14]. The QL reduction in patients with chronic heart failure (CHF) depends on its severity. In the early stages of the disease, patients with CHF restrict their work activities, lower daily life activities; in its late stages, the pathology continues in a sharp reduction of all QL parameters [7, 11, 23]. QL assessment can be useful in clinical research and the choice of an individual treatment policy for the stratification of risks in patients [18].

The development of contemporary methods for QL measurement has led to the creation of special questionnaires, with a sufficient level of safety (reproducibility), validity, and sensibility. The questionnaires, currently most widely used in clinical practice for evaluation of QL of patients - irrespective of tested population disease and specific characteristics of treatment - are: Sickness Impact Profile (SIP), Nottingham Health Profile (NHP) and Medical Outcomes Study 36 - Item Short Form heart survey (SF-36) [6, 12, 16, 17, 22]. However, despite a significant number of studies devoted to the QL of patients with CVD, its relation to patients' age and gender, diagnosis, clinical course peculiarities remain insufficiently explored.

The objective of the research is to assess QL in patients with CVD who were admitted to the Cardiology Unit according to their age, gender, and diagnosis, using the SF-36 Health Status Survey.

### Materials and methods

The test group consisted of 115 patients (59 men and 56 women) admitted to Cardiology Unit, Vinnytsia Regional Clinical Hospital named after Pirogov. Before the beginning of the assessment, all patients were informed about its goals and tasks, the privacy of information obtained and they gave their voluntary consent to survey.

The average age of participants amounted to 57.71±1.32 years old (men 55.93±1.78, women 59.62±1.95). 78 patients were diagnosed with different types of CHD (II, III, IV functional classes of cardiac angina, atherosclerotic and postinfarction cardiosclerosis, arrhythmia and abnormal heart capacity), in most cases in combination with stages II-III EH; in 17 patients with stage II EH without CHD, in 20 patients with other diseases of cardiovascular system (myocarditis, pericarditis, cardiopathy, heart defects). The control group included 30 healthy people without cardiac pathology symptoms (17 men and 13 women), whose average age amounted to 43.26±15.01 years old.

To evaluate the quality of life of the participants, the questionnaire MOS-SF-36 (Medical Outcomes Study-Short Form) designed by J.E. Ware was applied [24]. The method

is designed for clinical trials of non-specific, health-related, regardless of disease, gender, age-related peculiarities and specific of all treatment options. The questionnaire was thoroughly validated in patient-reported surveys of QL in patients of different populations and it is considered as a "gold" standard of a generic instrument to measure QL in patients with CVD [16, 17, 19]. Data of MedLine, 2006 show that SF-36 is nowadays used in 95% scientific studies devoted to QL analysis in different diseases.

The survey consists of 11 sections, which include 36 questions. Outcomes are presented in scores (from 1 to 100), according to eight scaled scores. The scales are grouped into two indicators: "Physical health" and "Mental Health":

#### I. Physical health (PH)

1. Physical Functioning (PF) is a measure indicating the degree to which the health limits physical tasks (self-care, walking, going up the stairs, carrying heavy things, etc.).

2. Role-Physical Functioning (RP) is an impact of physical status on role functioning (work, daily activities).

3. Bodily Pain (BP) is pain severity and its impact on a patient's ability to do activities of daily living, including housework and work.

4. General Health (GH) is an evaluation of the current health status and prospects of treatment by a patient.

#### II. Mental Health (MH)

5. Vitality (VT) scale is a measure of vitality, energy level or, vice-versa, fatigue).

6. Social Functioning (SF) scale is determined by the degree to which physical or emotional condition limits social activities (communication).

7. Role-Emotional (RE) is an impact of emotional status on role-functioning, meaning an evaluation of degree in which the emotional status includes job-related limitations and limitations in the performance of other daily activities (including time-consuming, decrease of work done, reduction of its quality, etc.).

8. Mental Health (MH) score demonstrates self-evaluation of psychic health, specifies mood (occurrence of depression, anxiety, a general index of positive emotions).

The computer processing "SF-36 HEALTH STATUS SURVEY", available at <http://vch.narod.ru> was used in the research. Graph 8 of basic scales has been constructed on "raw" scores which are the percent rate from 0 to 100 scores in reference to the highest possible score in each scale with zero reference point. The higher score reflects a better health state.

The validity of research outcomes was evaluated using a method of variation statistics using Student's T-Criteria. The reliably meaningful outcome is considered the one with the difference of indicators  $p < 0.05$ .

### Results

Based on the findings, a reduction of QL in patients with cardiovascular pathology has been identified in comparison with healthy people, including all items of the

**Table 1.** Indicators of quality of life in scores by scales of patients of the cardiology unit based on sex (M±m).

Test group	Indicators of Questionnaire SF-36 (scores)									
	PF	RP	BP	GH	VT	SF	RE	MH	PhC	PsC
Men (n=59)	47.03±2.21*	27.53±4.67*	48.21±3.10*	45.62±2.01*	41.30±2.48*	46.67±1.80*	35.40±5.63*	55.53±2.78	42.10±1.76	40.98±1.26
Women (n=56)	39.63±2.99*	13.86±3.97*	35.72±3.45*	42.97±2.20*	34.74±2.47	44.76±1.98*	25.60±5.17*	42.21±2.85*	33.05±1.76	36.80±13.73
p <sup>1-2</sup>	>0.05	<0.001	<0.01	>0.05	>0.05	>0.05	>0.05	<0.01	<0.01	<0.05

**Notes:** PF - physical functioning; RP - role physical functioning; BP - bodily pain; GH - general health; VT - vitality; SF - social functioning; RE - role-emotional; MH - mental health; PhC and PsC are correspondingly physical and psychological components of health; p<sup>1-2</sup> - credibility of differences between men and women; \* - credibility of differences of indicators in comparison with control group.

**Table 2.** Indicators of quality of life of patients of cardiology unit on the basis of age (M±m).

Age of patients	Indicators of Questionnaire SF-36 (scores)								
	PF	RP	BP	GH	VT	SF	RE	MH	
Under 45 years old (n=16)	61.63±6.76	26.67±3.56	53.31±7.72	47.95±4.75	36.00±3.96	40.13±3.93	45.90±12.12	51.04±5.05	
45-59 years old (n=40)	47.93±4.04	28.21±5.82	48.97±7.72	45.44±2.46	41.53±3.70	49.58±3.62	40.01±7.13	54.30±3.33	
60-74 years old (n=59)	37.05±2.66	15.74±2.49	34.07±3.45	42.82±2.20	36.31±2.42	44.79±1.77	21.30±5.07	45.83±3.26	
75 and more years old (n=10)	29.51±5.74	10.03±5.02	39.41±7.30	41.16±5.68	37.53±5.68	45.22±5.93	16.82±10.82	42.47±8.80	
Control group 43.26±15.01 years old (n=30)	77.02±0.44	53.80±0.73	61.30±0.45	56.56±0.33	55.15±0.38	69.67±0.41	57.23±0.72	58.82±0.34	
p <sup>1-2</sup>	>0.05	>0.1	>0.1	>0.1	>0.05	>0.05	>0.1	>0.1	
p <sup>2-3</sup>	<0.05	>0.05	>0.05	>0.1	>0.05	>0.05	<0.05	>0.05	
p <sup>3-4</sup>	>0.05	>0.05	>0.05	>0.05	>0.05	>0.05	>0.05	>0.05	
p <sup>1-4</sup>	<0.001	<0.05	>0.05	>0.1	>0.1	>0.1	<0.1	>0.1	
p <sup>1-5</sup>	<0.001	<0.001	>0.05	>0.05	<0.001	<0.001	>0.05	>0.05	

**Notes:** p<sup>1-2</sup> - the credibility of differences in the groups of patients aged under 45 years old and 45-59 years old; p<sup>2-3</sup> - the credibility of difference in the groups of patients aged 45-59 years old and 60-74 years old; p<sup>3-4</sup> - the credibility of difference in the groups of patients aged 60-74 years old and more than 75 years old. 4; p<sup>1-4</sup> - the credibility of difference in the groups of patients under 45 years old and more than 75 years old; p<sup>1-5</sup> - the credibility of difference in the groups of patients under 45 years old and control group.

SF-36 survey. The most dramatic reduction rates could be observed in Physical Functioning (p<0.001) scale, Role-Physical functioning (p<0.001), and Role functioning specified by emotional status (p<0.001).

While considering gender difference, QL in women in all scales of the survey appeared to be lower than that of men; however, statistically significant differences were revealed in three of them: impact of physical condition on role functioning (p<0.001), bodily pain (p<0.01), and self-evaluation of mental health (p<0.001) (Table 1).

The values of integral indicators of physical and psychological health components were reliably lower for women (Table 1). Gender differences are shown in Figure 1.

The analysis of QL of patients within different age groups has shown that QL worsened with age increase in most scales of the survey, the most significant in groups of patients of elderly and senile age, mostly in scales of physical and role-physical functioning as well as in scale related to role emotional status. At the same time, in scale demonstrating bodily pain, the age-related difference of indices was less considerable. The decline of indicators

in scales related to vitality, social functioning, and self-evaluation of mental health was less significant, which is possibly caused by partial adaptation to an existing long-term disease (Table 2).

This information can be verified by analyzing physical and psychological components of the questionnaire. The indicators of physical component declined steadily with age, especially in patients of elderly and senile age (Fig. 2).

In assessing the outcomes of survey depending on diagnosis, the degradation of QL indicators on almost all scales (except for bodily pain) could be observed in patients with EH; moreover, the decline in physical functioning and role functioning scales could be caused by physical state, general health and social functioning (Table 3).

The degradation of QL was significantly expressed in the group of patients with CHD, and, similarly to patients with EH, it decreased for account of physical functioning indicators (p<0.001) and role functioning caused by physical and emotional states (p<0.001), and, unlike the patients with EH, it was defined by more intensive bodily pain (p<0.05). At the same time, such indicators as vitality and

**Table 3.** Indicators of quality of life of patients of cardiology unit on the basis of diagnosis (M±m).

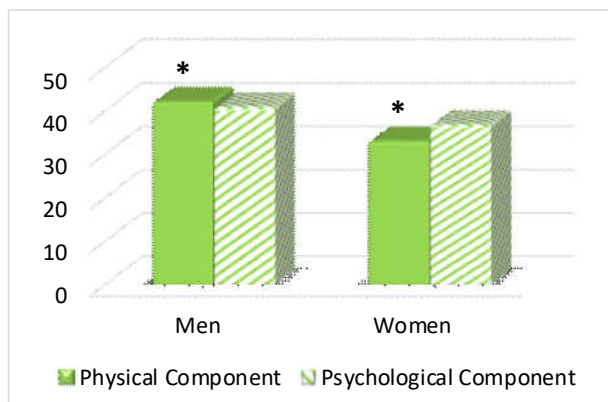
Test group	Indicators of Questionnaire SF-36 (scores)							
	PF	RP	BP	GH	VT	SF	RE	MH
Essential hypertension (n=17)	63.24±5.86	34.31±8.99	56.46±7.10	48.52±2.50	47.11±5.45	45.80±3.09	56.90±1.70	53.26±5.63
Coronary heart disease (n=78)	39.86±2.47	19.20±3.70	37.11±2.55	43.42±1.91	36.86±2.13	45.77±1.56	26.54±4.43	48.27±2.67
Other pathology (n=20)	23.76±5.44	16.23±7.73	50.11±6.25	44.28±3.70	15.33±3.50	45.92±4.06	24.78±8.44	49.61±3.74
Age 43.26±15.01; Control group of healthy persons (n=30)	77.02±0.44	53.80±0.73	53.80±0.73	56.56±0.33	56.56±0.33	56.56±0.33	57.23±0.72	58.82±0.34
p <sup>1-2</sup>	<0.001	<0.001	>0.05	>0.05	>0.05	>0.1	>0.05	>0.1
p <sup>1-3</sup>	<0.001	<0.001	>0.1	>0.1	<0.001	>0.1	<0.05	>0.1
p <sup>2-3</sup>	<0.01	>0.1	>0.05	>0.1	<0.001	>0.1	>0.1	>0.1
p <sup>1-4</sup>	<0.01	<0.001	>0.1	<0.001	>0.05	<0.01	>0.1	>0.05

**Notes:** p<sup>1-2</sup> - credibility of differences in the groups of patients with EH and CHD, p<sup>1-3</sup> - credibility of differences in the groups of patients with EH and other pathologies, p<sup>2-3</sup> - credibility of differences in the groups of patients with CHD and other pathologies, p<sup>1-4</sup> - credibility of differences in the groups of patients with EH and control group.

**Table 4.** Integral indicators of the quality of life of patients of cardiology unit on the basis of diagnosis (M±m).

Test group	Physical component	Psychological component
Essential hypertension (n=17)	50.62±3.40	50.71±3.49
Coronary heart disease (n=78)	34.94±1.46	39.31±1.52
Other pathology (n=20)	37.95±3.21	39.03±2.79
p <sup>1-2</sup>	<0.001	<0.05
p <sup>1-3</sup>	<0.01	<0.05
p <sup>2-3</sup>	>0.1	>0.1

**Notes:** p<sup>1-2</sup> - the credibility of differences in the groups of patients with EH and CHD, p<sup>1-3</sup> - the credibility of differences in the groups of patients with EH and other pathologies, p<sup>2-3</sup> - the credibility of differences in the groups of patients with CHD and other pathologies.



**Fig. 1.** Gender differences of integral indicators of quality of life of patients of cardiology unit.

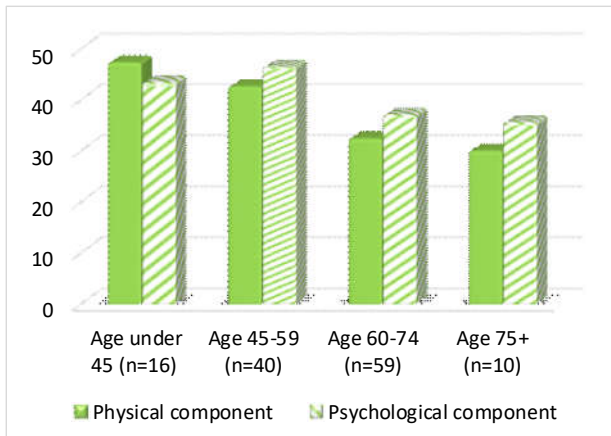
self-evaluation of mental health were less reduced and social functioning was almost the same as in the previous group (p>0.1).

The health of the patients whose clinical course of CHD was accompanied by stable angina compared to that of patients without pain syndrome, could be characterized by sharp decline of indicators in scale of pain (p<0.001) as well as significantly lower numbers in scales of physical functioning, role physical functioning, and role functioning, determined by emotional state and vitality and self-evaluation of their state (p<0.05).

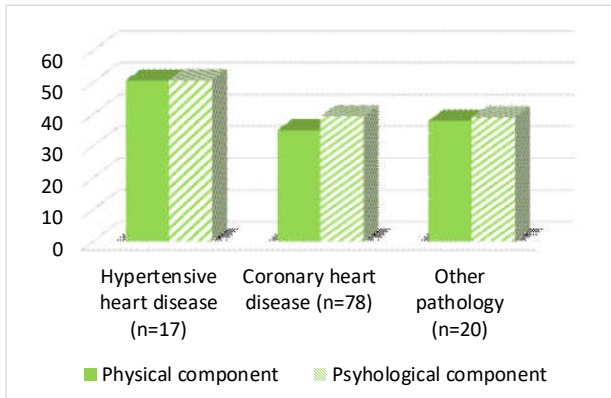
The group which consisted of the patients with myocarditis, cardiopathy, pericarditis, and heart defects was different due to very low indicators of the first two scales of the survey, but, in contrast to previous groups, bodily pain was less evident. In addition, they had a low level of vitality: probably, due to severe cardiac pathologies which occurred suddenly in most cases (Table 3).

Comparative assessment of integral indicators has helped identify a moderate decline in physical and psychological components in the group of patients with essential hypertension and, significantly, particularly physical component in patients with CHD (p<0.001). In the third test group, the reduction in both indicators was also considerable and practically coincided with that of the second group (Table 4). The dynamics of integral indicators of QL is presented in Fig. 3.

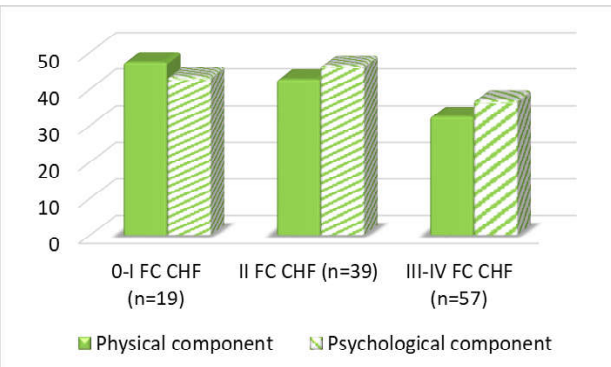
Essential differences have been determined between the groups, formed according to the functional classes of CHF. The highest scores in all scales of the questionnaire could be observed in patients with no heart failure or its slight manifestations (FC I), though they were slightly lower than in the control group. However, the dramatic decline in most indicators of QL (especially, scales demonstrating physical functioning) could be seen in patients with FC II. The indices of pain, vitality, and self-evaluation of mental health scales deteriorated considerably (p<0.05). The aforementioned changes surely demonstrate the



**Fig. 2.** Age differences of integral indicators of quality of life of patients of cardiology unit.



**Fig. 3.** Disparities in integral indicators of quality of life on the basis of diagnosis.



**Fig. 4.** Disparities in integral indicators of quality of life on the basis of intensity of chronic heart failure.

aggravation of patients' health: increasing shortness of breath, weakness, cardiac arrhythmia, and cardialgia. Special attention should be given to the fact that there were no substantial changes in the social functioning scale. Perhaps, it is due to the imprecise evaluation of the concept "social activity" by patients surveyed. The most negative dynamics was in the group of patients with CHF FC III-IV. The indicators of QL demonstrating human physical capacities and their role in daily work activities were the

lowest [8]. The vitality and self-evaluation of mental health reflecting depression, anxiety, reduction in positive emotions were equally low [15]. In analyzing generic indicators of survey, a reliable statistical decline was identified only in patients with III-IV FC CHF, whereas in patients with II FC CHF, the indicators were slightly reduced and were just the same as in patients with CHF I FC (Fig. 4).

### Discussion

As indicated above, quality of life is an integral criterion, based on a subjective perception that reflects the physical, mental, emotional and social human condition. The analysis of QL is extremely important concerning chronic cardiovascular diseases, in which an afflicted individual must take medication regularly or for a long time. Medication, in spite of the objective improvement of a condition, can lead to deterioration of QL. Because the assessment of QL demonstrates the patient's attitude towards their state, it is strictly individual. However, certain influences on a patient's self-perception of gender, age and diagnosis cannot be excluded.

Data on the impact of gender on QL of patients with cardiovascular diseases are heterogeneous. When assessing gender differences, it has been found that QL of women was lower than that of men in all scales of the survey. The most significant value of differences by scales was observed in the influence of physical status on role functioning, bodily pain, and self-evaluation of mental health. This indicates that women with cardiovascular diseases are more limited in their daily activities than men are; moreover, cardiac pain has a bigger influence on their daily activities. In addition, with regard to the progression of the basic disease, women have more intense depressive sensations of anxiety and mental disorders.

The assessment of QL of patients of different age groups indicates that QL became worse in most scales of the survey as the age groups increased, the most significant one in the groups of elderly and senile age. In contrast, younger patients had reliably higher scores in physical functioning (PF) and general health (GH) scales, which indicates better physical health. No reliable differences were found in people of middle age in comparison with young people in most scales, except for higher scores of QL related to the psycho-emotional sphere: role restrictions caused by personal or emotional problems and emotional well-being. In comparison with people of elderly and senile age, their QL scores were significantly higher in all scales. Higher QL scores in people of middle age with AH can be due to their better adaptation to the disease than in young patients and fewer concomitant pathologies than in elderly age. Nevertheless, even in the group of young patients, QL scores were more different from the group of healthy people of the representative age, especially in scales of physical functioning, role functioning both physical and emotional as well as in the scale of vitality. Apparently, having become ill and unable to work fully, young people feel emotional

stress which leads to a decrease in their social activities. If we compare with patients of young age, certain improvement of scores of the psychological component in patients of middle age might be connected to the fact that the psychological status of patients surveyed rose as a result of effective treatment and improvement of their condition.

The assessment of the quality of life in relation to the diagnosis showed inconsistency of changes of indicators, demonstrating physical condition in patients with EH and CHD, with a higher degree of intensity in patients with CHD and with lowering of scores demonstrating bodily pain intensity. Apparently, such outcomes could be the result of the reduction of physical and social activities as well as of limited possibility to perform routine functions caused by considerable increase of arterial blood pressure and its changes or pains in the heart, which patients interpret as aggravation of generic health. Similar data were obtained by a number of authors who indicate that the level of QL in patients with essential hypertension is directly related to patient's volitional control and negatively correlated with emotional instability, suspiciousness, anxiety, social control of behavior and stress levels [3, 10, 21].

Based on our observations, the degree to which QL can decline was associated with the severity of CHD and angina syndrome. Similar outcomes, showing that the violation of QL as a whole and its parameters depend on myocardial ischemia variants, are presented in the literature [1, 13].

The authors emphasize that QL is slightly reduced in patients with "latent" myocardial ischemia and reduced significantly in episodes of severe cardialgia [4, 5]. The occurrence of pain has a great influence not only on one's physical capacities but also on one's social activities and mental health. A dramatic reduction in scores in the first three scales of the survey is caused by the occurrence of high arterial hypertension, CHF, arrhythmia, and cardiac angina in most patients with CHD. Overestimated self-evaluation of mental health and vitality perhaps correlates with certain adaptations to chronic disease and relatively high social functioning due to simplified representation of society. Most surveyed patients with CHD are disabled people and pensioners, whose social contacts are limited to communication with their relatives and neighbors; perhaps such social functioning, as it is understood by them, is sufficient enough.

The progression of HF was accompanied by the degradation of QL. A rapid decrease was observed in most indicators of QL in patients with FC II, especially in scales demonstrating physical functioning, which grew as FC CHF increased. The most negative dynamics was in the group of patients with CHF FC III-IV and the indicators of QL-that demonstrate human physical capacities and their role in daily work activities-were the lowest which corresponds to the outcomes obtained by other authors [8]. The vitality and self-evaluation of mental health reflecting depression,

anxiety, reduction in positive emotions were equally low [15]. In analyzing generic indicators of survey, a reliable statistical decline was identified only in patients with III-IV FC CHF, whereas in patients with II FC CHF, the indicators were slightly reduced and were just the same as in patients with CHF I FC.

There is a perception that QL of patients who get long-lasting antihypertensive and anti-ischemic treatment is lower than that of untreated patients, and even the existence of necessity to take medication for a long time can reduce QL level. On the other hand, degradation of QL in patients surveyed was often associated with a reduction in long-term adherence to treatment; in this connection, the measures aimed to raise compliance became of vital importance.

The indicators of QL in patients afflicted by cardiovascular disease could be additional informative characteristics, the use of which is crucial to a better assessment of the functional condition of patients and issues of treatment efficacy. It is advisable to consider their possible application during medical and social expertise of people of elderly and senile age, including the cases when it is difficult to do an exercise tolerance test.

## Conclusions

1. The study showed reliable evidence of reduction of QL in patients with cardiovascular pathologies in all scales of the survey SF-36, the most significant in physical functioning scale, role physical functioning scale, and role functioning scale caused by emotional state.

2. Gender and age differences of indicators were highlighted: the indicators of physical functioning were reduced to a greater degree in women with CVD than in men; their daily activities are more strongly influenced by cardiac pain and depression and anxiety, while psychological problems are more visible.

3. The indicators of scales which demonstrated the physical component of QL declined with age increase. The mental status in middle age was slightly higher than in young people and dramatically reduced in elderly and senile age. This could be caused by the adaptation of patients of the second age group to the disease and the increase of disease burden and, accordingly, lower efficiency of treatment in the third and fourth test groups.

4. The QL of patients with EH dropped equally because of both physical and psychological components. More negative dynamics in patients with CHD was connected with the physical component, which indicated low physical capacity of such patients. The presence of cardiac angina in patients with CHD has a significant influence not only on physical capacities but also on social activities and mental health. A direct correlation between the reduction of most indicators of QL and the progression of chronic heart failure has been proven.

5. The reduction of indicators of the psychological component in all test groups shows that chronic disease

of the cardiovascular system has a notable impact on a patient's mental health and neurotic disorders. This proves the necessity of psychological care, focused on increasing the level of individual adaptive capacity of a patient. These

include but are not limited to: reduction of impacts of factors of cardiac risks, development of adaptive resources, improvement of patient's quality of life under conditions of chronic disease.

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## ЯКІСТЬ ЖИТТЯ ПАЦІЄНТІВ СПЕЦІАЛІЗОВАНОГО КАРДІОЛОГІЧНОГО ВІДДІЛЕННЯ

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Існуючі методи оцінки стану пацієнта не враховують усе різноманіття життя людини. Це встановлює необхідність впровадження комплексного підходу до оцінки стану хворих із включенням інтегральних критеріїв їх суб'єктивного стану: якості життя (ЯЖ) як складової їх фізичного, психічного і соціального добробуту. Оцінка ЯЖ досягається використанням спеціальних опитувальників. Незважаючи на значну кількість досліджень, присвячених ЯЖ хворих з серцево-судинною патологією, її зв'язок з віком і статтю пацієнтів, а також з діагнозом та особливостями перебігу захворювання залишається недостатньо вивченим. Мета дослідження: дати оцінку якості життя госпіталізованих хворих з захворюваннями серцево-судинної системи в залежності від віку, статі та діагнозу захворювання. Обстежено 115 кардіологічних хворих (59 чоловіків

і 56 жінок), госпіталізованих в кардіологічне відділення Вінницької обласної клінічної лікарні ім. М.І. Пирогова. Середній вік обстежених склав  $57,71 \pm 1,32$  років. У 78 пацієнтів було діагностовано різні форми ІХС (II, III, IV функціональні класи стенокардії, атеросклеротичний і післяінфарктний кардіосклероз, порушення ритму і провідності); у більшості випадків у поєднанні з ГХ II-III стадії, у 17 пацієнтів - ГХ II стадії без ІХС, у 20 - інші захворювання серцево-судинної системи (міокардити, перикардити, кардіопатії, вади серця). Контрольна група складалася із 30 здорових осіб (17 чоловіків і 13 жінок) без ознак кардіологічної патології; середній вік склав  $43,26 \pm 15,01$  років. Для оцінки ЯЖ було використано опитувальник MOS-SF-36. Результати відповідей оцінювались у балах (від 1 до 100) по 8 шкалам. Більш високий бал відповідав кращому стану здоров'я. Достовірність результатів дослідження оцінювались методом варіаційної статистики із використанням t-критерія Стьюдента. Виявлено достовірне зниження ЯЖ пацієнтів за всіма шкалами опитувальника SF-36, гендерні та вікові відмінності, а також відмінності в залежності від діагнозу захворювання та особливостей його перебігу. Показники ЯЖ при захворюваннях серцево-судинної системи можуть бути додатковими інформативними характеристиками, які слід використовувати для більш повної оцінки функціонального стану хворих і вирішення питань ефективності лікування.

**Ключові слова:** серцево-судинні захворювання, якість життя, опитувальник SF-36.

#### КАЧЕСТВО ЖИЗНИ ПАЦИЕНТОВ СПЕЦИАЛИЗИРОВАННОГО КАРДИОЛОГИЧЕСКОГО ОТДЕЛЕНИЯ

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Существующие методы оценки состояния пациента не учитывают всё многообразие жизни человека, что определяет необходимость внедрения в практику комплексного подхода к оценке состояния больных с включением интегральных критериев их субъективного состояния - качества жизни (КЖ) как меры их физического, психического и социального благополучия. Оценка КЖ достигается использованием специальных опросников. Несмотря на значительное число исследований, посвящённых КЖ больных с сердечно-сосудистой патологией, остаётся недостаточно изученной её связь с возрастом и полом пациентов, с диагнозом, с особенностями течения заболевания. Цель исследования: дать оценку качеству жизни госпитализированных больных с заболеваниями сердечно-сосудистой системы в зависимости от возраста, пола и диагноза заболевания. Обследовано 115 кардиологических больных (59 мужчин и 56 женщин), госпитализированных в кардиологическое отделение Винницкой областной клинической больницы им. Н.И.Пирогова. Средний возраст обследованных составил  $57,71 \pm 1,32$  лет. У 78 пациентов были диагностированы различные формы ИБС (II, III, IV функциональные классы стенокардии, атеросклеротический и постинфарктный кардиосклероз, нарушения ритма и проводимости), в большинстве случаев в сочетании с ГБ II-III стадии, у 17 пациентов - ГБ II стадии без ИБС, у 20 - другие заболевания сердечно-сосудистой системы (миокардиты, перикардиты, кардиопатии, пороки сердца). Контрольную группу составили 30 здоровых лиц без признаков кардиальной патологии (17 мужчин и 13 женщин), средний возраст составил  $43,26 \pm 15,01$  года. Для оценки КЖ был использован опросник MOS-SF-36. Результаты ответов оценивали в баллах (от 1 до 100) по 8 шкалам. Более высокий балл соответствовал лучшему состоянию здоровья. Достоверность результатов исследования оценивали методом вариационной статистики с использованием t критерия Стьюдента. Выведено достоверное снижение КЖ пациентов по всем шкалам опросника SF-36, гендерные и возрастные различия, а также различия в зависимости от диагноза заболевания и особенностей его течения. Показатели КЖ при заболеваниях сердечно-сосудистой системы могут быть дополнительными информативными характеристиками, которые следует использовать для более полной оценки функционального состояния больных и решения вопросов эффективности лечения.

**Ключевые слова:** сердечно-сосудистые заболевания, качество жизни, опросник SF-36.