



ASSESSMENT OF QUALITY OF LIFE IN PATIENTS WITH CHRONIC HEART FAILURE WITH PRESERVED CARDIAC OUTPUT

Khusainova Munira Alisherovna

Toirov Doston Rustamovich

Khaydarov Sanjar Nizamitdinovich

Ortikova Sohiba Xamroyevna
Samarkand State Medical University

ABSTRACT

Introduction. Quality of life (QoL) refers to an assessment of disease-associated and non-associated parameters, and allows differentiating the impact of disease and treatment on the patient's psychological, emotional state, and social status.

The aim of the study was to estimate the quality of life in patients with chronic heart failure (CHF) with preserved cardiac output.

Materials and methods. A single-stage cross-sectional study, which was conducted in Samarkand, during The study was carried out in Samarkand city from 08/18/2021 till 05/18/2022. Overall 153 participants took part in the study. The Minnesota Questionnaire was used to assess QOL. Data are presented in absolute numbers and percentages, as well as the mean and its 95% confidence interval and standard deviation. Mean values were compared using Student's t-test.

Results. The mean age of the study participants was 64.6 (± 11.67). The majority of the respondents were indigenous (71.6%). Patients with secondary education accounted for 87.9%. The majority of study participants were pensioners (60.5%). The mean ejection fraction values of the study participants were 60.7 (± 5.54). The mean values of the total physical health component of the study participants were 20.8 (± 8.34) points. The mean scores for the general psychological component of health were 6.8 (± 5.16). The mean score of the final sum of the questionnaire was 42,7 ($\pm 17,45$).

Conclusions. The physical component of health of the study participants corresponds to an average level of satisfaction with QOL. At the same time, women had a worse index of the physical component of QH than men.

Survey participants were less likely to have depressive symptoms and anxiety disorders. The final sum

survey participants' scores corresponded to an average level of satisfaction with FH.

Keywords: Quality of life, Minnesota Questionnaire, physical health, psychological well-being.

INTRODUCTION

According to WHO experts, quality of life (QOL) "is the individual's relationship to his or her position in society in the context of its culture and value systems of that society with the individual's goals, plans, abilities and degree of general well-being. plans, capabilities and



degree of general disorder". WHO has developed the fundamental criteria for QOL and their components: physical (strength, energy, fatigue, pain, discomfort, sleep, rest); Psychological (positive emotions, emotions, thinking, learning, remembering, concentration, self-esteem, appearance, negative experiences); level of independence (daily activities, ability to work, dependency on treatment and medication); social life (personal relationships, social value of the subject, sexual activity); environment (well-being, safety, everyday life, security accessibility and quality of health and social care social services, availability of information, accessibility of education and training, leisure environment (well-being, safety, everyday life, accessibility and quality of medical and social care, availability of information, access to training and professional development, leisure time, ecology). It is a broad concept defined by the totality of physical health of an individual, his or her psychological psychological state, personal beliefs, social attitudes and personal attitudes towards environment.

The concept of quality of life in clinical medicine is narrower, reflecting its dependence on the presence of a particular pathological condition. In modern medicine, the term "health-related quality of life" (HRQL) is widely used.

The term "health-related quality of life" (HRQL-health-related quality of life), which refers to the assessment of parameters associated and not associated with the disease, and allows for a differentiated determination of the impact of the disease and treatment on the psychological, emotional state of the patient, his social status. The concept of "quality of life" is multidimensional in its basis. Its components are: psychological well-being, social well-being, physical well-being, and spiritual well-being.

One of the major problems of modern medicine in terms of prevalence, morbidity, mortality and use of health services is chronic heart failure (CHF).

(CHF). It affects between 2% and 3% of the population, and its prevalence increases with age, affecting about 10% to 20% of the population over 65 years of age. And in developed countries the prevalence of heart failure is increasing due to an ageing population, increasing survival rates and the effectiveness of secondary prevention.

The presence of clinically significant CHF is associated with a significant reduction in QOL, which is more pronounced than for other common chronic conditions. The presence of clinically significant CHF is associated with a significant decrease in QOL, which is more pronounced than for other common chronic conditions. which low tolerance to exercise, poor quality of life and a high need for rehospitalisation. the need for repeated hospital admissions is high.

Improvement of QOL is considered to be an important goal of therapeutic The improvement of QOL is considered to be an important goal of therapeutic interventions in patients with CHF. Instruments for QOL offer the possibility to gain information about How CHF affects the patient's daily life and well-being of the patient, this data cannot be These data cannot be obtained from clinical and laboratory examinations. Therefore, improving QOL is an important objective in the For this reason, improving QOL is an important objective in the treatment and rehabilitation of patients with chronic heart failure. heart failure. In recent decades dozens of questionnaires have been developed and are being implemented have been developed and introduced over the last decades to assess the quality of life in patients with chronic heart



failure. Among them one of the most widely known and used is the Minnesota Quality of Life Questionnaire of patients with chronic heart failure (MLHFQ - Minnesota Living with Heart Failure), which has been translated and adapted into at least 34 languages in at least 34 languages and has also demonstrated good psychometric qualities in numerous studies. The questionnaire reflects QW during the during the last month. It may be filled in by the client/tangata whai ora themselves. by the patient. Although the questionnaire is not categorised and the result is an overall The questionnaire is not categorised and the result is an overall Although the questionnaire is not categorised, and the use of the questionnaire produces an overall QOL score which is the result of simply The analysis of the questions, however, allows us to divide them into six categories, The analysis of the questions is able to divide them into 6 symptoms of CNS (5 questions), limitations in daily life due to CNS (5 questions), limitation of daily life due to day-to-day life due to CVS (6 questions), quality of quality of sleep (1 question), social consequences of the disease (4 questions) social consequences of the disease (4 questions), sexual disorders (1 question), psychological consequences of the disease (4 questions). The worst QOL corresponds to an overall value of 105, and the best – 0. The aim of the study was to assess the quality of life of patients with chronic heart failure with preserved cardiac output.

MATERIALS AND METHODS

A single-stage cross-sectional study, which was conducted in Samarkand, during The study was carried out in Samarkand city from 08/18/2021 till 05/18/2022. Overall 153 participants took part in the study. The Minnesota Questionnaire was used to assess QOL. Data are presented in absolute numbers and percentages, as well as the mean and its 95% confidence interval and standard deviation. Mean values were compared using Student's t-test. QOL was assessed using the Minnesota Quality of Life Questionnaire (MLHFQ), which is recommended for evaluating patients with this pathology. The questionnaire contains 21 items, each of which is rated on a six-point Likert scale, representing different degrees of impact of heart failure on health-related QOL (HRQoL), from 0 (none) to 5 (very much), the higher the score, the worse the quality of life. The questionnaire calculates an overall score (ranging from 0 to 105, best to worst) related to health, quality of life, and scores on two dimensions: physical (8 items, range 0-40) and emotional (5 items, range 0-25). The remaining eight items (out of a total of 21) are considered only for calculating the overall score. All questionnaire data was coded, and confidentiality was maintained. In general, it took 10-15 minutes to complete the questionnaires. Identified ambiguities and shortcomings in the respondents' answers were corrected on the spot by checking the answers to the questions. Validity and internal reliability testing of the questionnaire was validity of the questionnaire was pre-tested on 20 patients. Data are presented in absolute numbers and percentages as well as the mean and its 95% confidence interval and standard deviation. Comparison The mean values of the two independent groups were compared, with a normal distribution, using Student's t-test. The results were statistically processed using SPSS (Statistical Package for the SPSS (Statistical Package for Serial Sciences) version 20.0 for Windows.



RESULTS

The characteristics of the participants in the study are presented in Table 1. There were 306 participants in the study, of whom 55.2% (n=85) were men and 44.8% (n=68) were women.

The mean age of patients was 64.6 (95% CI:63.3- 65.9) years, CO=11.67. The youngest study participant was 17 years old and the oldest was 89 years old. The mean age of men was 62.3 (95% CI:61.2-64.7) years, CO=11.53. The youngest study participant was 22 years old, the oldest 84 years old. The mean age of women was 66.6 (95% CI:64.8-68.6) years, CO=11.57. The youngest study participant was 17 years old and the oldest was 89 years old. The majority of respondents were indigenous people (71.6%). There were 87.9% of patients with secondary education. The majority of study participants were pensioners (60.5%).

The mean ejection fraction values in the study participants were 60.7 (95% CI:60.1-61.3), CO=5.54. The minimum values were 50.0, maximum 75.0. At the same time, in men the mean ejection fraction values were 60.0 (95%DI:59.1-60.8), CO=5.65. The minimum values were equal to 50.0, maximum 74.0, in women the mean values were equal to 61.5 (95% CI: 60.6-62.4), CO=5.30. The lowest score was 50.0 and the highest was 74.0.

DISCUSSION

The determining factor influencing the quality of life of patients with CHF is, on the one hand, physical discomfort with a concomitant persistent reduction of functional capacity, and on the other hand, the psychoemotional factor due to social maladaptation and psychological burden, expressed anxiety associated with the perception of their disease. A significant contribution to the subjective symptoms of dissatisfaction with QOL is low tolerance of physical activity. Many studies have found a reduction in the physical component of quality of life in patients with CHF.

Functional capacity is the body's ability to carry out daily work, to participate in social life, it also includes the intellectual and emotional aspects of life, and the ability to create economic security. Perception includes a person's views and judgements about the value of these components; the patient's perception of overall health, well-being and satisfaction with life is of great importance. Symptoms are the consequence of underlying or comorbid conditions and are reduced or eliminated by the intervention, which is the third important component of quality of life. However, new symptoms may appear as a result of treatment, due to the side-effects of medication. Symptoms that occur as a result of adverse drug reactions may affect or significantly limit the potential outcome of treatment, impairing the patient's quality of life. Symptoms can affect functional ability and perception, while these three components are also interrelated. Quality of life in our study participants was assessed using the Minnesota Quality of Life Questionnaire. The questionnaire assesses the extent to which heart failure affects quality of life, with the higher the score, the worse the subject's quality of life. An overall score is calculated, as well as scores for the physical health component and the emotional domain. According to our study, the mean scores of the total physical component of health of the study participants were 20.8 (95% CI:19.9-21.8) points CO=8.34, p=0.008. The minimum score was 1.0 and the maximum score was 40. This indicator corresponds to the average level of satisfaction with the quality of life on the physical component. The mean score of the total



physical component of health in men was 19.7 (95% CI:18.3-21.0) points CO=8.72, $p=0.009$. The minimum score was 1.0 and the maximum score was 40. In women, the score was 22.3 (95% CI:21.0-23.6) points CO=7.6790, $p=0.219$. The minimum score was 4.0 and the maximum was 39. The mean score of the physical component of health in women was 2.61 (± 0.938) points higher than in men ($t=2.780$, $df=301.89$, $p=0.006$), the difference in mean values was statistically significant. This suggests that the women index of the physical component of QOL is worse than in men.

Many studies have demonstrated a significant association between the severity of clinical haemodynamic and functional abnormalities and the emotional status of patients, particularly depressive and anxiety disorders in patients with CHF.

According to our study, the mean score of the general psychological component of health was 6.8 (95% CI:6.2-7.3) points CO=5.16, $p=0.000$. The minimum score was 0.0 and the maximum was 25. This index indicates that participants in our study were less likely to suffer from depressive symptoms and anxiety disorders. The mean score of the general psychological component of health in men was 5.7 (95% CI:4.9-6.5) points CO=5.04, $p=0.000$. The minimum score was 0 and the maximum score was 20. In women, the score was 8.1 (95% CI:7.236-8.939) points CO=5.04, $p=0.000$. The minimum score was 0 and the maximum was 25. The mean score of the psychological component of health was 2.38 (± 0.579) points higher in women than in men ($t=4.103$, $df=304$, $p=0.000$), the difference in mean values being statistically significant. This suggests that women are more susceptible to CCS-related psychological distress.

The mean score on the final sum of the questionnaire was 42.7 (95% CI:40.7-44.7) scores CO=17.45, $p=0.000$. The minimum score was 5.0 and the maximum was 124. This indicator corresponds to the average level of satisfaction with the quality of life among survey participants. The mean sum score for males was 41.2 (95% CI:38.3-44.1) points CO=19.07, $p=0.000$. The minimum score was 5 and the maximum was 124. In women, the score was 44.5 (95% CI:42.0-47.1) points CO=15.10, $p=0.049$. The minimum score was 14 and the maximum was 92. The mean total score for women was 3.31 (± 1.953) points higher than for men ($t=1.699$, $df=303.85$, $p=0.090$), the difference in mean values being statistically insignificant. This suggests that there is generally no difference between men and women in satisfaction with quality of life in patients with CHF. This one-stage cross-sectional study has a number of limitations that need to be considered when interpreting the results. Questioning study participants is always subjective and may affect the overall results of the study. Re-interviewing the study participants after a certain period of time would have improved the results, but the work was done as part of a Master's thesis and had time constraints. Despite these shortcomings, the work has its merits. The questionnaire used was the Minnesota Life Quality Questionnaire (MLHFQ), whose validity and relevance has been proven in many international studies. This questionnaire is recommended as one of the best tools to assess the quality of life of patients with chronic heart failure. The questionnaire measures different degrees of impact of heart failure on health-related quality of life. Quality of life is assessed using both physical and emotional dimensions to enable rehabilitation measures to be taken at both an individual and population level.



CONCLUSIONS

Quality of life is an important aspect in the care and treatment of patients with chronic heart failure as it encompasses medical, social and emotional aspects of life.

According to our study, the mean scores of the general physical component of the health of the study participants correspond to an average level of satisfaction with their quality of life. However, women had a worse index of the physical component of quality of life than men. The study of the psychological component of health showed that survey participants were less likely to be depressed and have anxiety disorders. At the same time, women were more susceptible to psychological distress related to chronic heart failure than men. The final sum of the survey participants' scores corresponds to an average level of satisfaction with their quality of life. Overall, there is no difference between men and women with regard to satisfaction with quality of life among patients with chronic heart failure.

LITERATURE

1. Akbarov, A. T. U., Feruz Yusufovich, N., & Xusseynova, M. A. (2021). Features Of Intensive Therapy For Preeclampsia And Eclampsia. *The American Journal of Medical Sciences and Pharmaceutical Research*, 3(01), 124-130.
2. Alisherovna, K. M., Nizamitdinovich, K. S., Davranovna, M. K., & Erkinovna, K. Z. (2022). Kidney Condition in Patients with Myocardial Infarction. *Texas Journal of Medical Science*, 13, 85-90.
3. Alisherovna, K. M., Rustamovich, T. D., & Baxtiyorovich, U. J. (2022). The Use of Trimetazidine in Patients with Type 2 Diabetes Mellitus Who Have Suffered a Myocardial Infarction. *Czech Journal of Multidisciplinary Innovations*, 10, 35-41.
4. Alisherovna, K. M., Rustamovich, T. D., Baxtiyorovich, U. J., & Sherzodovna, M. D. (2022). KIDNEY DAMAGE IN CHRONIC HEART FAILURE. *Web of Scientist: International Scientific Research Journal*, 3(10), 744-752.
5. Alisherovna, K. M., Rustamovich, T. D., Baxtiyorovich, U. J., & Sobirovna, S. M. (2022). Diabetes Mellitus and Hyperglycemia in Patients with Rheumatoid Arthritis. *Texas Journal of Medical Science*, 13, 99-103.
6. Alisherovna, K. M., Toshtemirovna, E. M. M., & Oybekovna, E. E. (2022). QUALITY OF LIFE OF PATIENTS WITH CIRRHOSIS OF THE LIVER. *Spectrum Journal of Innovation, Reforms and Development*, 4, 197-202.
7. Alisherovna, K. M., Toshtemirovna, E. M. M., Duskobilovich, B. S., & Umirxanovna, K. G. (2022). DYSFUNCTION LEFT VENTRICULAR IN BRONCHIAL ASTHMA. *Spectrum Journal of Innovation, Reforms and Development*, 4, 216-221.
8. Alisherovna, K. M., Toshtemirovna, E. M. M., Totlibayevich, Y. S., & Xudoyberdiyevich, G. X. (2022). EFFECTIVENESS OF STATINS IN THE PREVENTION OF ISCHEMIC HEART DISEASE. *Web of Scientist: International Scientific Research Journal*, 3(10), 406-413.
9. Davranovna, M. K., Alisherovna, K. M., Erkinovna, K. Z., & Nizamitdinovich, K. S. (2022). Assessment of the Quality of Life of Patients with Coronary Heart Disease. *The Peerian Journal*, 11, 44-50.



10. Erkinovna, K. Z., Alisherovna, K. M., Davranovna, M. K., & Nizamitdinovich, K. S. (2022). Correction of Cytokine Imbalance in the Treatment of Stable Angina Pectoris. *The Peerian Journal*, 11, 64-70.
11. Khusainova, M., & Nazarov, F. (2021). Features of the circadian rhythm blood pressure in patients heart failure and impaired renal function. *InterConf*.
12. Nazarov, F. Y. (2021). CHANGES IN CYTOKINE SPECTRA AND THEIR SIGNIFICANCE IN COVID-19 VIRAL INFECTION COMPLICATED WITH PNEUMONIA. *Web of Scientist: International Scientific Research Journal*, 2(06), 62-69.
13. Nazarov, F. Y. (2021). CORRECTION OF HEMODYNAMIC DISORDERS IN PATIENTS WITH OUTSIDE BILATERAL TOTAL PNEUMONIA. *Web of Scientist: International Scientific Research Journal*, 2(11), 151-155.
14. Nazarov, F. Y., & Makhmudova, K. D. (2022). THE USE OF STATINS AND DRUGS THAT INHIBIT THE ABSORPTION OF CHOLESTEROL IN PATIENTS WITH CORONARY HEART DISEASE. *Galaxy International Interdisciplinary Research Journal*, 10(1), 306-309.
15. Nazarov, F. Y., & Xaydarova, Z. E. (2022). OSHQOZON VA ICHAK YARA KASALLIKLARI BOR BEMORLARDA SUYAKLAR MINERAL ZICHLIGINING BUZILISHI. *Oriental renaissance: Innovative, educational, natural and social sciences*, 2(Special Issue 4-2), 1037-1044.
16. Nizamitdinovich, K. S., Alisherovna, K. M., Erkinovna, K. Z., & Davranovna, M. K. (2022). Heart Lesions in Rheumatological Diseases. *Texas Journal of Medical Science*, 13, 91-94.
17. Rustamovich, T. D., Alisherovna, K. M., Baxtiyorovich, U. J., & Abdurakhmonovich, M. M. (2022). Painless Cardiac Ischemia in Women with Rheumatoid Arthritis. *Texas Journal of Medical Science*, 13, 95-98.
18. Toshtemirovna, E. M. M., Alisherovna, K. M., Totlibayevich, Y. S., & Xudoyberdiyevich, G. X. (2022). Anxiety Disorders and Coronary Heart Disease. *The Peerian Journal*, 11, 58-63.
19. Totlibayevich, Y. S., Alisherovna, K. M., Xudoyberdiyevich, G. X., & Toshtemirovna, E. M. M. (2022). Risk Factors for Kidney Damage in Rheumatoid Arthritis. *Texas Journal of Medical Science*, 13, 79-84.
20. Yarmukhamedova, S. (2020). SURUNKALI GLOMERULONEFRIT BILAN OG 'RIGAN BEMORLARDA ARTERIAL QON BOSIMINING SUTKALIK MONITORING KO 'RSATKICHLARINI BAXOLASH. *Журнал кардиореспираторных исследований*, 1(1), 103-108.
21. Yarmukhamedova, S., Nazarov, F., Mahmudova, X., Vafoeva, N., Bekmuradova, M., Gaffarov, X., ... & Xusainova, M. (2020). Features of diastolic dysfunction of the right ventricle in patients with hypertonic disease. *Journal of Advanced Medical and Dental Sciences Research*, 8(9), 74-77.
22. Yarmukhamedova, S., Nazarov, F., Mahmudova, X., Vafoeva, N., Bekmuradova, M., Gafarov, X., ... & Xusainova, M. (2020). Study of indicators of intracardial hemodynamics and structural state of the myocardium in monotherapy of patients with arterial



- hypertension with moxonidin. *Journal of Advanced Medical and Dental Sciences Research*, 8(9), 78-81.
23. Zikiriyayevna, S. G., Makhmudovich, A. S., Fakhriddinovich, T. S., & Muxtorovna, E. M. (2022). NON-ALCOHOLIC FATTY LIVER DISEASE. *Web of Scientist: International Scientific Research Journal*, 3(10), 414-422.
 24. Zikiriyayevna, S. G., Muxtorovna, E. M., Jurakulovich, U. I., & To'raqulovna, Q. S. (2022). PAINLESS CARDIAC ISCHEMIA IN WOMEN WITH RHEUMATOID ARTHRITIS. *Web of Scientist: International Scientific Research Journal*, 3(10), 397-405.
 25. Zikiriyayevna, S. G., Muxtorovna, E. M., Mamadiyarovich, S. A., & To'raqulovna, Q. S. (2022). KIDNEY DAMAGE IN RHEUMATOID ARTHRITIS: RELATIONSHIP WITH CARDIOVASCULAR RISK FACTORS. *Galaxy International Interdisciplinary Research Journal*, 10(5), 857-862.
 26. Zikiriyayevna, S. G., Muxtorovna, E. M., Mamadiyarovich, S. A., & Jurayevich, M. E. (2022). EVALUATION OF 12-WEEK URATE-REDUCING THERAPY WITH ALLOPURINOL IN COMBINATION WITH THE NONSTEROIDAL ANTI-INFLAMMATORY DRUG MELOXICAM IN PATIENTS WITH GOUT. *Galaxy International Interdisciplinary Research Journal*, 10(6), 140-148.
 27. Zikiriyayevna, S. G., Zohirovna, M. G., Muxtorovna, E. M., & Bahromovich, S. S. (2022). Kidney Damage in Patients with Chronic Cardiac Insufficiency and Obesity. *Texas Journal of Medical Science*, 13, 72-78.
 28. Эргашева, М. Т. (2022). АРТЕРИАЛЬНАЯ ГИПЕРТЕНЗИЯ У ЖЕНЩИН В ПОСТМЕНОПАУЗЕ. *Журнал кардиореспираторных исследований*, (SI-2).
 29. Ярмухамедова, С. Х., & Афмирова, Ш. А. (2022). Изменения диастолической функции правого желудочка при гипертонической болезни. *Science and Education*, 3(11), 270-280.
 30. Ярмухамедова, С. (2020). ОЦЕНКА ПРИЗНАКОВ ДИАСТОЛИЧЕСКОЙ ДИСФУНКЦИИ ПРАВОГО ЖЕЛУДОЧКА У БОЛЬНЫХ С АРТЕРИАЛЬНОЙ ГИПЕРТЕНИЕЙ. *Журнал кардиореспираторных исследований*, 1(2), 88-92.