**How to Cite**:
Abed, H. A., & Sachet, K. R. (2022). The influence of anxiety on health-related quality of life among patients with heart diseases. *International Journal of Health Sciences*, *6*(S2), 10471–10479. https://doi.org/10.53730/ijhs.v6nS2.7515

# The influence of anxiety on health-related quality of life among patients with heart diseases

**Hatif Ali Abed**
MSc Student, University of Baghdad, College of Nursing

**Kareem Reshak Sachet**
Associate Professor, Department of Psychiatric Mental Health Nursing, College of Nursing, University of Baghdad.

***Abstract*---**Method: The investigation is conducted using a descriptive-analytic approach. The research will run from December 15th, 2021 through May15th, 2022 at Al-Samawah Teaching Hospital's Center Coronary Care Unit. Results: Result showed that our samples are suffering from moderate to severe anxiety symptoms (M±SD= 13.73±3.29), and have Fair quality of life (M±SD= 76.31±12.442) as seen among 86% of them. Most of patients with heart diseases have fair levels quality of life moderate (physical domain, psychological domain, social domain, environmental domain) which reflect fair level among all items of this domain. Finally Anxiety of patients have significant influence on quality of life among patients with heart disease indicated by high significant with overall quality of life score at p-value= .001; the significant difference is seen among all domains of quality of life except physical domain that show non-significant. Conclusions: The majority of heart disease patients suffer from fair levels quality of life , and severe anxiety, and fair levels quality of life moderate .Anxiety has significant influence on quality of life among patients with heart disease indicated by high significant between anxiety and quality of life

***Keywords*---**anxiety, quality life, heart diseases.

## Introduction

The term "heart disease" refers to a multitude of disorders that occur from changes in coronary veins or function, such as heart failure, which is the leading cause of mortality in Europe and the rest of the globe. An individual's "health-related quality of life" refers to a subjective and multidimensional concept that

incorporates a wide range of aspects, such as physical, social, emotional, mental, and functional well-being (Mousa & Hassan, 2014).

Psychiatric symptoms such as depression and anxiety are symptomatic scenarios regularly seen in patients with heart diseases; these comorbidities complicate the therapeutic method and expand hospitalizations and increase mortality (Gustad et al., 2016). Since the beginning of psychological research, there has been an interest in the association between heart disease and psychological factors, over the last two decades, heart disease patients are more likely to suffer from mental health issues than individuals who are generally healthy, according to recent research ,and people with psychological disorders are more likely to get heart disease (Alyasiri et al., 2016).

Patients with heart disease typically get a poor quality of life, and the majority have a low life expectancy, with a high death rate within the last years after diagnosis (Faller et al., 2015). In people suffering from heart disease, fatigue and intolerance of daily living activities are the most prominent clinical symptoms, other disorders, such as depression and anxiety, are frequently noticed (Tully et al., 2018). Heart disease and other chronic conditions have a direct influence on physical health and quality of life, which are combined to produce the idea of health-related quality of life–in other words, the whole state of physical, social, and cognitive functioning. Additionally, Schipper and colleagues created the idea of health-related quality of life in the 1990s (Sosnowski et al., 2017)

In the framework of culture and values, health-related quality of life is described as an individual's perception of where they are in respect to their goals, aspirations, ideals, and concerns in the context of their culture and values (Uchmanowicz & Gobbens, 2015). Physical and internal disorders are connected to heart disease, a worse health-related quality of life and greater cerebral agony (symptoms of anxiety and depression, as well as a lack of positive affect) have been reported in individuals with heart disease in previous research, heart disease patients' health-related quality of life and sickie social standing have been examined in a variety of studies over the last decade (Lou et al., 2015).

**Method**

The Study Design : The investigation is conducted using a descriptive-analytic approach. The research will run from December 15th, 2021 through May15th, 2022 at Al-Samawah Teaching Hospital's Center Coronary Care Unit Administrative Arrangements :In order to initiate the present study in a formal manner, an official request must be submitted to the official authorities concerned in this field. Therefore, a formal administrative request was made to the nursing college and then a formal administrative request had been submitted by the College of Nursing / University of Baghdad to the Central Statistical Organization / Ministry of Planning and to Al- Samawah Teaching Hospital Ethical Consideration : The researcher obtained orally informed approval from each patient. The researcher has explained the purpose of the study to patient before they take part in the research. In addition, the researcher informed the subjects that their participation in this study was voluntary, and also assured them that he will safeguard the confidentiality of the data and they will be

securely maintained during and after conducting the study according to the subject's agreement sheet

Sampling of the Study: A non-probability (purposive) sample of the study consisted of (100) patients with heart diseases were selected from the Center Coronary Care Unit in Al-Samawah Teaching Hospital.
Study Instrument : The research instrument consists of a socio-demographic sheet for each Health-Related Quality of Life Scales and the anxiety scales
Part I: Demographic Data
Part II: The anxiety Scale
Part III Health-Related Quality of Life Scales
Validity of the Questionnaire : Content validity was determined by the panel of (11) experts, who had more than 7 years' experience in their fields to investigate the content of the questionnaire of patients with heart diseases
Reliability of the Questionnaire : Reliability is referring to an extent to which a questionnaire reports the same results on repeated time measure. The reliability of the instrument was determined through the computation of Alpha Cronbach's test (Alpha Correlation Coefficient); internal consistency method was used for determining the reliability. The Alpha Correlation Coefficient was applied to determine the reliability of the present study instrument by application of Statistical Package for Social Science Program (IBM SPSS) version 26.0.

**Methods of Data Collection**

The data collected started from January15th, 2022 to April 15th, 2022 to complete the questionnaire after obtaining permission from Center Coronary Care Unit in Al-Samawah Teaching Hospital, and preliminary approval for participation was acquired from the heart disease patient before the interview began. Al-Samawah Center Coronary Care Unit was seeing the majority of its patients in the morning hours, according to the hospital. This information was acquired by the researcher in the patient's room, and it was chosen with care (each patient asked for their agreement before gathering the information). A total of around 20-30 minutes was spent on average with each responder among the heart disease patients who took part in the survey.

**Result**

Table (1): Distribution of Sample according to their Socio-demographic Characteristics

| List | Characteristics | | f | % |
|---|---|---|---|---|
| 1 | Age | 20 – less than 31 year | 1 | 1 |
| | | 31 – less than 41 year | 12 | 12 |
| | | 41 – less than 51 year | 23 | 23 |
| | | 51 – less than 61 year | 37 | 37 |
| | | 61 – less than 71 year | 17 | 17 |
| | | 71 ≤ year | 10 | 10 |
| | | Total | 100 | 100 |
| 2 | Gender | Male | 66 | 66 |
| | | Female | 34 | 34 |

| | | | | |
|---|---|---|---|---|
| | | Total | 100 | 100 |
| 3 | Marital status | Unmarried | 4 | 4 |
| | | Married | 60 | 60 |
| | | Widowed/er | 25 | 25 |
| | | Divorced | 11 | 11 |
| | | Total | 100 | 100 |
| 4 | Level of education | Doesn't read & write | 38 | 38 |
| | | Read & write | 23 | 23 |
| | | Primary school | 19 | 19 |
| | | Intermediate school | 13 | 13 |
| | | Secondary school | 5 | 5 |
| | | Institute/college | 2 | 2 |
| | | Total | 100 | 100 |
| 5 | Occupation | Employee | 20 | 20 |
| | | Free works | 28 | 28 |
| | | Retired | 20 | 20 |
| | | Doesn't work | 9 | 9 |
| | | Housewife | 23 | 23 |
| | | Total | 100 | 100 |
| 6 | Residency | Rural | 56 | 56 |
| | | Urban | 44 | 44 |
| | | Total | 100 | 100 |
| 7 | House ownership | Owned | 83 | 83 |
| | | Rented | 9 | 9 |
| | | Others | 8 | 8 |
| | | Total | 100 | 100 |
| 8 | Monthly income | Sufficient | 17 | 17 |
| | | Barely sufficient | 28 | 28 |
| | | Insufficient | 55 | 55 |
| | | Total | 100 | 100 |

f: Frequency, %: Percentage

This table shows that 37% of patients with heart disease are of age group 51-60 year and 23% of them are of age group 41-less than 51 years. The gender variable shows that 66% of patients are males and 34% of them are females. Regarding marital status, 66% of patients are married and 25% are widowed/widower. The level of education analysis refers that 38% of patients are doesn't read and write and 23% of them read and write while 19% are graduated from primary school. The occupational status for patients refers that 28% of them are working free works, 23% are housewives, and 20% is seen working as employee and retired. Regarding residency, 56% of patients are residents at rural areas and 44% of them are residents at urban areas. More of them are living in their own house (83%).Regarding monthly income, 55% of patients are perceived insufficient monthly income and only 17% perceive sufficient monthly income.

Table (2): Distribution of Sample according to their Clinical Characteristics

| List | Characteristics | | f | % |
|---|---|---|---|---|
| 1 | Duration of illness | 1 – less than 6 years | 51 | 51 |
| | | 6 – less than 11 years | 30 | 30 |
| | | 11 – less than 16 years | 15 | 15 |
| | | 16 ≤ year | 4 | 4 |
| | | Total | 100 | 100 |
| 2 | Types of illness | Heart failure | 35 | 35 |
| | | Ischemic heart disease | 44 | 44 |
| | | Cardiac arrhythmia dis. | 21 | 21 |
| | | Total | 100 | 100 |

f: Frequency, %: Percentage

The analysis of clinical characteristics in this table reveals that 51% of patients are with 1-less than 6 years' duration of illness and 30% with 6-10 years. Regarding their illness, 44% of them are diagnosed with ischemic heart disease, 35% are diagnosed with heart failure, and 21% are diagnosed with cardiac arrhythmia disease.

Table (3): Assessment of Anxiety Symptoms among Patients with Heart Disease

| Anxiety | f | % | M | SD |
|---|---|---|---|---|
| Normal | 9 | 9 | 13.73 | 3.29 |
| Mild | 9 | 9 | | |
| Moderate | 30 | 30 | | |
| Severe | 48 | 48 | | |
| Extremely severe | 4 | 4 | | |
| Total | 100 | 100 | | |

f: Frequency, %: Percentage, M: Mean for total score, SD: Standard Deviation, Normal= 0-7, Mild= 8 – 9; Moderate= 10 – 14; Severe= 15 – 19, Extremely severe= 20 – 21

This table indicates that patients are experiencing moderate to severe anxiety symptoms (M±SD= 13.73±3.29) in which 48% show severe anxiety and 30% show moderate anxiety.

Table (4): Overall Assessment of Quality of Life among Patients with Heart Disease

| Quality of life | f | % | M | SD |
|---|---|---|---|---|
| Poor | 9 | 9 | 76.31 | 12.442 |
| Fair | 86 | 86 | | |
| Good | 5 | 5 | | |
| Total | 100 | 100 | | |

f: Frequency, %: Percentage, M: Mean for total score, SD: Standard Deviation for total score Poor= 26 – 60.66, Fair= 60.67 – 95.33, Good= 95.34 – 130
This table indicates that patients with heart disease are showing fair quality of life (M±SD= 76.31±12.442) as seen among 86% of them.

Table (5): Regression Analysis for Anxiety Symptoms with Quality of Life among Patients with Heart Diseases (N=100)

| Anxiety<br>QoL | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | | |
| Physical | -.143 | .084 | -.170 | -.1.705 | .091 |
| Psychological | -.204 | .080 | -.251 | -2.566 | .012 |
| Social | -.176 | .043 | -.381 | -4.081 | .001 |
| Environmental | -.300 | .102 | -.285 | -2.941 | .004 |
| Overall | -.967 | .282 | -.327 | -3.429 | .001 |

The regression analysis in this table indicates that anxiety has significant influence on quality of life among patients with heart disease indicated by high significant with overall quality of life score at p-value= .001; the significant difference is seen among all domains of quality of life except physical domain that show non-significant

**Discussion**

According to the study's results, the great majority of patients (66 percent) were men, as seen in (Table 4-1). This conclusion is corroborated by Denton et al. (2017), who observed that the overwhelming majority of research participants were males. This finding is supported by (Peerdwod & Abdulla, 2021): The present article review concluded that the study showed most of the participant more than half of them were males.

In terms of age, this study's results reveal that the majority of patients polled are between the ages of (51-60) years, as seen in (Table 4-1). This finding is consistent with Abbas et al., (2018), finding that the majority of the participants investigated were (>50) years old. Additionally, Weiss et al. (2017) reported that the majority of research participants were old age. Also this finding is supported by (Peerdwod & Abdulla, 2021): The present article review concluded that the study showed most of the participant age were (53-65) years. Another research (Tong et al., 2016) discovered that the majority of their sample was between the ages of 51 and 60 years.

It is fitting for our culture that both men and females tend to marry at a young age, as shown by this research, which found that 60% of heart disease patients were married couples (Table 4-1). According to McFarland, these findings are correct (2019). It seems that the majority of participants are married. This finding is supported by (Peerdwod & Abdulla, 2021): The present article review concluded that the study showed most of the participant most of the patients were married. In terms of education level, the majority of sample patients (38%) were unable to read and write, as shown in . This study's results are similar to those of the preceding one (Molla et al., 2021). The patient's degree of knowledge about the condition and treatment options may influence their ability to recognize heart disease symptoms and reduce the impact of risk factors and consequences. Because of this, a large number of people with low educational attainment are at

greater risk of illness. Having a high degree of education indicates a patient's level of awareness of their sickness, while having a low level of education indicates a patient's lack of awareness and increased stress levels. Hu et al., (2018) found that the majority of the research participants were in elementary school or below. This finding is supported by (Peerdwod & Abdulla, 2021): The present article review concluded that the study showed most of the participant more than half of them were illiterate. This finding is supported by (Ameen & Gardi, 2019). The present article review concluded that the study showed most of the participant more illiterate (102) from total samples (140).

According to the findings of this survey, 28% of participants were free workers, while 23% were jobless, as indicated in the chart below (Table 4-1). Unemployment was detected in 67.2 percent of the research participants, according to Polaski et al, (2017). Abbas et al. (2018) at the Medical City/ Baghdad disagree with the present study findings. They demonstrated that there is majority of patients in this study are working in industrial occupation (60%) as the working rules are different between the societies. The vast majority of research participants (83 percent) own their own homes, . The results of support from Ni et al. (2018), who discovered that the majority of the research participants were homeownership.

Regarding residence, the majority of heart disease cases in the sample (56 percent) are rural, and has previously said, one of the most significant factors contributing to an elevated risk of illness is the environment. In Iraq, environmental pollution has increased significantly as a consequence of chemical elements impacting the air, such as industrial pollutants and explosions, as well as war relics, and contributes to becoming the major risk factor for heart diseases, particularly in large cities. This conclusion is consistent with (Molla et al., 2021), who found that 221 size samples (total sample 372) were from rural areas and 151 size samples (total sample 372) were from urban areas.

In terms of monthly income, the majority of sample patients do not have an adequate monthly income (55 percent). While monthly income may influence patient knowledge about self-care, poverty is seen as a significant risk factor for illness. Abbas et al (2018). The studies discovered that when illness prevalence increases in low- and middle-income nations. It has been shown out of the analysis that 51% of patients are with 1-5 years' duration of illness. Polanski et al. (2015) showed that patients with chronic illness had a disease duration of between one and 1.5 years, but those with the terminal disease have a disease duration of 'between' half a year and one year (Polaska J et al., 2015).

It has been shown out of the analysis that their illness, 44% of them are diagnosed with ischemic heart disease, 35% are diagnosed with heart failure, and 21% are diagnosed with cardiac arrhythmia disease. The reason for this is due to people's customs and traditions, which include, for example, unhealthy eating and less exercise, any loss of physical activity. Most of the patients live in a poor area where the research was conducted and their standard of living is not sufficient. In addition to that, most of the prescriptions and doctors' reviews are on them, and this results from the lack of hospital visits, as well as the examination of his condition (researcher).

The result indicate that 31% of the study sample experience Moderate and Severe depression that patients with heart disease as a result of Table (4-4). These results are in agreement with those of a research conducted by Khue et al., (2019), who revealed that heart diseases patients experience from depression about (92.8%). Hu et al. (2018) released another research in which they discovered that the diagnosis and treatment of chronic illness patients had a substantial influence on their emotional well-being. According to the result indicate that 48% of the study sample experaince severe anxiety that people who have developed the cardiac disease It appears from the report's results. Increased degrees of anxiety were felt. Patients who suffer from heart disease may become more sensitive and frustrated as a result of the added stress. Anxiety was shown to be prevalent among patients with chronic conditions in research by Yan et al. (2019), with a 43.5 percent prevalence rate.

According to the result indicate that 86% of the study sample experaince fair quality of life that patients with heart disease . This finding support by (Ameen & Gardi, 2019). The studys found there is an effect of the quality of life on heart diseases. which it was found fair (106) quality of life, good (15) quality of life, and poor (19) quality of life from total samples (140). Also this finding support by (AbuRuz, 2018): The studys found there is an effect of the quality of life on heart patients and the results showed that patients with HD have fair QoL. Comorbidities have been linked to a worse quality of life in individuals with heart disease, resulting in an increased mortality risk (Vickers, 2017). This conclusion is corroborated by (Peerdwod & Abdulla, 2021): The current research shown that patients with myocardial infarction had a worse quality of life. The regression analysis indicates that anxiety has significant influence on quality of life among people suffering from coronary artery disease indicated by high significant with overall quality of life score at p-value= .001; the significant difference is seen among all domains of quality of life.

## Conclusion

The majority of heart disease patients suffer from fair levels quality of life , and severe anxiety. Most of patients with heart diseases have fair levels quality of life moderate (physical domain, psychological domain, social domain, environmental domain) which reflect fair level among all items of this domain. anxiety has significant influence on quality of life among patients with heart disease indicated by high significant between anxiety and quality of life

## References

1. Mousa, A. M., & Hassan, A. P. D. H. B. (2014). Patients' Health Related Quality Of Life After Percutaneous Coronary Intervention In Baghdad City. Journal of Kufa for Nursing Science Vol, 4(1).
2. Gustad, L. T., Bjerkeset, O., Strand, L. B., Janszky, I., Salvesen, Ø., & Dalen, H. (2016). Cardiac function associated with previous, current and repeated depression and anxiety symptoms in a healthy population: the HUNT study. Open Heart, 3(1), e000363.
3. Alyasiri, A., Saleem, Z., & Al-Farhan, H. A. (2016). Depression in Patients with Acquired Heart Diseases in Baghdad. The Iraqi Post Graduate Medical

Journal, 15(2).
4. Faller, H., Störk, S., Gelbrich, G., Schowalter, M., Ertl, G., & Angermann, C. E. (2015). Depressive symptoms in heart failure: Independent prognostic factor or marker of functional status? Journal of Psychosomatic Research, 78(6), 569–572.
5. Tully, P. J., & Cosh, S. M. (2018). Generalized anxiety disorder prevalence and comorbidity with depression in coronary heart disease: a meta-analysis. Journal of Health Psychology, 18(12), 1601–1616.
6. Sosnowski, R., Kulpa, M., Ziętalewicz, U., Wolski, J. K., Nowakowski, R., Bakuła, R., & Demkow, T. (2017). Basic issues concerning health-related quality of life. Central European Journal of Urology, 70(2), 206.
7. Uchmanowicz, I., & Gobbens, R. J. J. (2015). The relationship between frailty, anxiety and depression, and health-related quality of life in elderly patients with heart failure. Clinical Interventions in Aging, 10, 1595.
8. Lou, Z., Li, Y., Yang, Y., Wang, L., & Yang, J. (2015). Affects of anxiety and depression on health-related quality of life among patients with benign breast lumps diagnosed via ultrasonography in China. International Journal of Environmental Research and Public Health, 12(9), 10587–10601. https://doi.org/10.3390/ijerph120910587
9. Peerdwod, H., & Abdulla, N. (2021). Quality Of Life For Patients With Myocardial Infarction: Article Review. Mosul Journal of Nursing, 9(1), 86–100.
10. Molla, S., Yitayal, M., & Amare, G. (2021). Health-related quality of life and associated factors among adult patients with heart failure in Wolaita Zone Governmental Hospitals, Southern Ethiopia. Risk Management and Healthcare Policy, 14, 263.
11. Ameen, B. S. H., & Gardi, Y. M. (2019). Quality of Life of Patients With Heart Failure at Teaching Hospitals in Erbil City. Erbil Journal of Nursing and Midwifery, 2(2), 116-124.
12. Hu, T., Xiao, J., Peng, J., Kuang, X., & He, B. (2018). Relationship between resilience, social support as well as anxiety/depression of lung cancer patients: A cross-sectional observation study. Journal of cancer research and
13. Yang, J., Hu, H., & Li, Y. (2020). Effect of dual-track interactive nursing intervention model on anxiety and depression in patients with coronary heart disease. Psychiatria Danubina, 32(2). https://doi.org/10.24869/PSYD.2020.197