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# Cardiac Patients Self-reliance Regarding Quality of Life and Satisfaction Post Diagnosing: A Cross Sectional Study

**Aftab Ghouri[1], Farhan Ahmad[2], Faiza Jokhio[1], Asif Jamali[1], Sehar Luqa[3], Najam-u-Saqib[4]**

[1]Benazir College of Nursing, Shaheed Mohtarma Benazir Bhutto Medical University, Larkana, Sindh, Pakistan.
[2]Emergency Department, Sindh Government Hospital Korangi, Karachi, Sindh, Pakistan.
[3]Dr Ziauddin Hospital, Sukkur, Sindh, Pakistan.
[4]Baria International Hospital Safari, Karachi, Sindh, Pakistan.

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**Correspondence to:** Aftab Ghouri, Benazir College of Nursing, Shaheed Mohtarma Benazir Bhutto Medical University, Larkana, Sindh, Pakistan.
**Email:** ageorge@smbbmu.edu.pk

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## ABSTRACT

**Background:** Patients satisfaction "refers to the extent to which patients are happy with their healthcare, both in terms of outcomes and the way the care was delivered. It's a key indicator of healthcare quality and is often used to evaluate services, guide improvements, and shape policy.Assessing the satisfaction of patients with health services is clinically important, as satisfied patients are more inclined to adhere to treatment and actively participate in their care. **Aims of study:** To assess the quality of life and satisfaction of cardiac patient. **Method:** This cross sectional study performed in the National Institute of Cardiovascular Diseases (NICVD) Larkana within 4 months among 155 cardiac patients selected by non-probability purposive sampling technique. All the cardiac related patients were included and unwilling were excluded. By considering a 95% confidence level and 7% precision level. The data was entered and analyzed by using SPSS 23; all the qualitative variables are presented in percentages and mean ± SD in the MANOVA. **Result:** The female patients were slightly greater 51% than male 49%, but their satisfaction was observed higher in the female with mean ± SD (147.5 ± 28.1). Same level of important was seen in females have greater mean ± SD (150.3 ± 28.6) than male gender. **Conclusion:** It was concluded that females' cardiac patients have greater satisfaction and quality of life than male mong 31 to 40 years of age group and having more satisfied quality of life.

## INTRODUCTION

The life satisfaction (LS) of the cardiac patients is identified with a lower rate of the cardiac disease and its worsening towards death. It impacts the psychological and physiological behavior of the client, if the client is more active, quits smoking and alcohol, and diet habits are as per the direction of the physician then it affects self-assurance, self-worth, and optimization, and could be said that beneficiary self-response leading towards the high-level flexibility[1]. It also reflects well-being in daily activities, encompassing achievements, relationships, self-perception, mood, and coping effectiveness. Measurement of life satisfaction considers living standards, education level, socio-economic status, life experiences, and other life-related matters. [2] Hence, it measures subjective well-being, remains constant, and is not influenced by day-to-day mood changes, may it serve as a gauge to assess how an individual is adapting to their current life situation.[3]

The onset of this disease often signifies the need to adopt and maintain healthy habits, including a balanced diet, regular physical exercise, and emotional regulation. Strong adherence to a healthier lifestyle serves as a predictor for reducing the risk of cardiac issues.[4] Heart failure is a serious global illness. While more people are surviving, not enough attention is given to their care afterward. Survivors might feel okay, but many still have big health problems like mental issues, tiredness, and emotional distress, further, it feels like anxiety and depression.[5] After heart-related incidence, patients need to adapt their daily routines, embrace preventive behaviors adjust to new lifestyles in their available resources, and reassess their plans. It is well-established that early management of cardiovascular risk factors through long-term lifestyle changes, preventive measures, and continued therapeutic interventions leads to a significant reduction in morbidity and mortality.[6]

Patient satisfaction is linked to the fulfillment of both general healthcare needs and condition-specific needs. Assessing the satisfaction of patients with health services is clinically important, as satisfied patients are more inclined to adhere to treatment and actively participate in their care.[7] whereas good mental well-being is likewise

linked to improved cardiovascular health by enhancing coping skills and promoting healthy behaviors. LS is influenced by psychosocial and economic factors which can be modified by interventions thus studies reveal and suggest a connection between life satisfaction and reduced cardiovascular disease incidence, including a lower risk in pre-illness stages.[8]

Depression also impacts lifestyle habits such as smoking, eating, exercise, relationships with family, social activities, and work patterns. Depression is defined by the World Health Organization (WHO). "It is a widespread mental disorder characterized by feelings of sadness, loss of interest, guilt, disrupted sleep or appetite, fatigue, and poor concentration"[9].

The modern approach to healthcare aims to involve both patients and the public in shaping healthcare services and ensuring equitable access. However, achieving this requires significant investments, commitment, political support, and social change to overcome obstacles. Progress in certain aspects of healthcare delivery, guided by quality assurance and outcome evaluation, is often driven by political feasibility. While this is crucial, a grassroots evaluation of patient satisfaction seems most effective for translating improvement efforts into a tangible impact on quality of life.[10] A study performed in Ethiopia, revealed that overall MI clients quality of life was 49.29±14.83 and an indicated low QoL[11]. Another research depicts health related QoL rated as 12.1% low, 25.9% moderate and 62% as good of post Myocardial Infarction (MI) patients[12].Therefore; this study aims to assess the level of quality life and satisfaction of cardiac patients.

## METHODOLOGY

This descriptive cross sectional study was conducted in National Institute of Cardiovascular Diseases (NICVD) Larkana, among the cardiac patients of such as myocardial infarction, heart failure, angina etc. The samples were selected by non-probability, purposive technique, among those diagnosed as cardiac patients, and unconscious, patient on ventilator and unwilling were excluded. The data was together from 155 patients. The sample size calculated on the bases of previous study prevalence of coronary artery disease (CAD) 26.9%, considering a 95% confidence level and 7% precision level. The formal written permission was obtained from the setting and individuals prior to present questionnaire during all shifts. The structured and validated questionnaire adopted with reliability at Cronbach's alpha 0.94, it consists of two sections; 1) satisfaction and 2) important, containing 35 questions in each and the quality of life index contains five subscales: 1) total quality of life score, 2) Health and Functioning subscale score, 3) social and economic subscale score, 4) psychological/spiritual subscale and 5) family subscale score.

The SPSS (Statistical Package for Social Science) version 23 was used for data entrance and interpretation. The qualitative variables reported in terms of frequency and percentages. To find out the mean difference in satisfaction level between genders, Pearson correlation, an independent sample t-test and One way ANOVA was be applied is by considering the significance level P-value <0.05.

## RESULT

The female participants were (51%) slightly higher than the male (49%), mostly from the age limit of above 40 and least 10-20 years of age, maximum of them were had matriculation (50.%) of education and lowest of from post graduation (9.7%) and for income source majority (31.6%) earns 10,000 to 20,000 of salary and some of above 40,000 (11.6%).

**Figure 1**

*Gender-wise distribution of study participants*

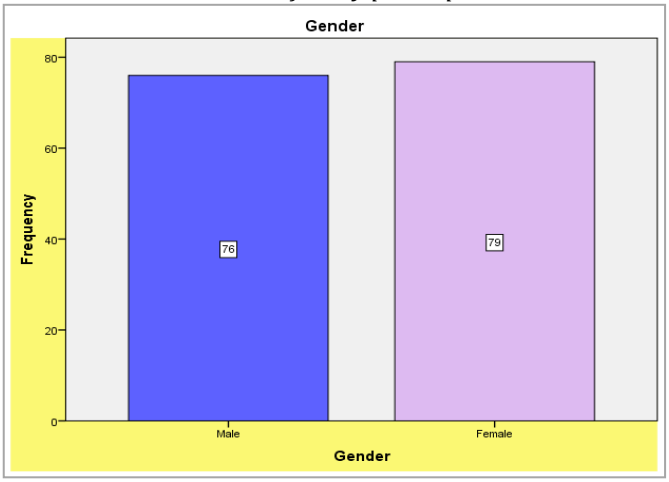


**Figure 2**

*Distribution of study participants according to Education level*

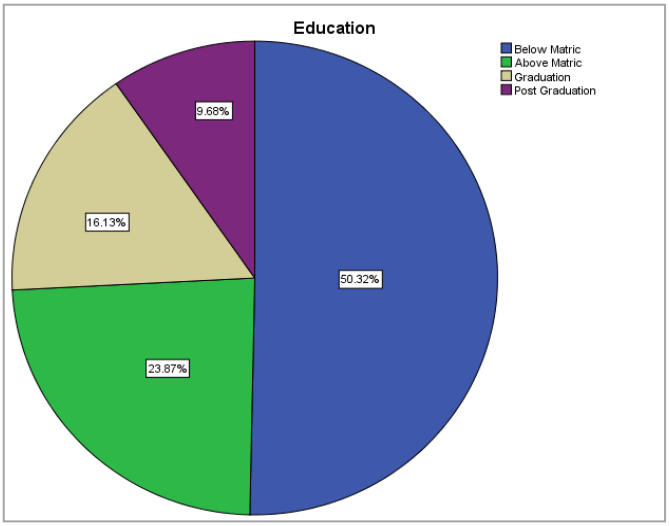


**Table 1**

*Independent Samples t-Test Gender & Satisfaction*

| | Gender | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| Satisfaction total | Male | 76 | 139.2763 | 28.71450 | 3.29378 |
| | Female | 79 | 147.5823 | 28.15917 | 3.16815 |

An independent samples t-test was conducted to compare satisfaction scores between male and female cardiac patients. The results showed that females (M = 147.58, SD = 28.16, n = 79) reported higher satisfaction compared to males (M = 139.28, SD = 28.71, n = 76). The difference in

means suggests a potential gender-based variation in satisfaction levels.

**Table 2**

*Pearson correlation between Satisfaction scores and Quality of life (QoL) among Cardiac patients (N = 155)*

| Correlations | | | |
|---|---|---|---|
| | | Satisfaction total | QoL_total |
| Satisfaction total | Pearson Correlation | 1 | .414** |
| | Sig. (2-tailed) | | .000 |
| | N | 155 | 155 |
| Important total | Pearson Correlation | .414** | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 155 | 155 |

**. Correlation is significant at the 0.01 level (2-tailed).

A Pearson correlation analysis revealed a moderate positive relationship between patients' quality of life (QoL) and satisfaction scores, which was statistically significant ($r = 0.414$, $p < 0.001$). This indicates that higher perceived quality of life is associated with greater satisfaction among cardiac patients.

An independent samples t-test was conducted to compare satisfaction scores between genders. Females reported higher satisfaction than males; however, the statistical significance of this difference should be confirmed by the t-test statistics (t-1.818, df 153, and p-value 0.071).

**Table 3**

*One-way ANOVA comparing Quality of life (QoL) scores across four patients groups*

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 5475.775 | 3 | 1825.258 | 2.354 | .074 |
| Within Groups | 117100.974 | 151 | 775.503 | | |
| Total | 122576.748 | 154 | | | |

A one-way ANOVA was performed to examine differences in quality of life (QOL) scores among four patient groups. The analysis showed no statistically significant difference in QoL across these groups, $F(3, 151) = 2.354$, $p = 0.074$, suggesting similar levels of QoL irrespective of group membership.

## DISCUSSION

This cross-sectional investigation analyzed the correlation between quality of life (QoL) and patient satisfaction among individuals with cardiac conditions, while also addressing gender-based disparities in satisfaction metrics, with female patients demonstrating an average satisfaction score of ($M = 147.58$, $SD = 28.16$), in contrast to male patients who exhibited a score of ($M = 139.28$, $SD = 28.71$). This observation diverges from various studies indicating that female patients frequently report diminished levels of satisfaction attributable to factors such as inadequate patient-provider communication and unaddressed healthcare requirements. For instance, research conducted by Shah et al. (2019) established that female patients afflicted with atherosclerotic cardiovascular disease were significantly more inclined to indicate a subpar patient experience in comparison to their male counterparts, thereby underscoring the necessity for gender-sensitive methodologies in the realm of cardiac healthcare.

The results indicated a moderate positive correlation between QoL and patient satisfaction ($r = 0.414$, $p < 0.001$), suggesting that individuals who perceive an enhanced quality of life are more inclined to express greater satisfaction with their healthcare experiences. This finding corroborates prior studies that highlighted the reciprocal relationship between QoL and patient satisfaction within cardiac patient populations (Mosleh et al., 2017).

The investigation into the association between educational attainment and QoL yielded no statistically significant differences among the various groups ($F(3, 151) = 2.354$, $p = .074$). Although individuals with higher educational qualifications (e.g., Graduation and Post-Graduation) exhibited marginally elevated satisfaction scores compared to those with lower educational backgrounds (e.g., Below Matric), the observed variation was insufficient to achieve statistical significance.

These results are somewhat consistent with various earlier research. For example, Alonso et al. (2004) and Rafii et al. (2007) found that people with greater educational levels generally report higher life quality and health satisfaction. This could result from increased health literacy, improved employment prospects, and better coping strategies among the educated. Nonetheless, various research, like that of Malathi et al. (2016), has revealed inconsistent or negligible impacts of education on perceived quality of life, particularly within groups where socio-economic status, healthcare access, and family support are more influential.

In the present research, the p-value (.074) approached the 0.05 limit, indicating a potential trend toward significance that could become more apparent with a larger sample size or by accounting for confounding factors like income or occupation. The absence of significance might also indicate the uniformity of the sample regarding socioeconomic status or cultural elements affecting self-reported satisfaction.

Education groups produced a non-significant outcome ($F(3, 151) = 2.354$, $p = 0.074$), indicating that group affiliation did not significantly affect satisfaction levels. This suggests that personal patient experiences and views may be more crucial in shaping satisfaction than demographic categories by themselves. Additional research has also highlighted the variability in patient-reported outcomes, with certain studies indicating that there are no substantial gender-related differences in QoL among cardiac patients (Galdas et al., 2014).

Overall, the study underscores the importance of enhancing quality of life to improve patient satisfaction among cardiac patients. The observed gender differences in satisfaction highlight the necessity for healthcare providers to adopt gender-sensitive approaches, ensuring that both male and female patients receive care that addresses their unique needs and concerns. Future research should explore the underlying factors contributing to gender disparities in patient satisfaction and investigate interventions to mitigate these differences.

## RECOMMENDATIONS

Organizations should implement targeted programs aimed at improving satisfaction such as counseling options, feedback channels, recognition schemes, and wellness initiatives to beneficially influence people's quality of life. Organizations and healthcare organizations should employ standardized tools to consistently assess satisfaction and quality of life, promoting quick identification of problems and proactive support for individuals

### Strengths of the Study

The study identified a moderate, statistically significant positive correlation between satisfaction and quality of life ($r = 0.414$, $p < 0.01$), offering important insights into the existing knowledge of psychosocial health metrics. When research is conducted in a specific national or institutional context (e.g., among Pakistani nurses or students), this study provides localized insights, addressing a gap in the existing literature on well-being and satisfaction

### Limitations

This study employed a cross-sectional design that collected data at a single point in time, thereby restricting the ability to make causal inferences regarding satisfaction and quality of life. The sample size was confined to a particular group and area, potentially restricting the generalizability.

## CONCLUSION

The findings demonstrated a moderate, statistically significant positive correlation ($r = 0.414$, $p < 0.01$), suggesting that individuals with higher satisfaction tend to experience a better quality of life. Although the independent samples t-test showed no statistically significant difference in satisfaction between the groups ($p = 0.071$), the mean difference observed suggests a potential trend that may warrant further investigation in future research. The findings suggest that organizations and decision-makers should consider integrating satisfaction-focused strategies into their regular operations. Additional research, particularly utilizing longitudinal and diverse methods, is essential to improve the understanding of causal relationships and contributing factors

### Authors' Contributions

1. Aftab Ghouri; Main conception, study design
2. Farhan Ahmad: Manuscript writing, data analysis, interpretation
3. Faiza Jhokio: Data collection, proposal writing
4. Asif Ali Jamali: Critical review, review of proposal
5. Sehar Luka: Literature review,
6. Najam-u-Saqib: Data gathering,

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