



A study to assess the quality of life with myocardial infarction patient attending cardiac department Dr. V. V. P. PRH Loni (Bk)

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Abstract

Background: Cardiovascular diseases (CVDs) are the leading cause of global morbidity and mortality, accounting for 17.9 million deaths annually, representing 32% of all global deaths (WHO, 2021). Among these, myocardial infarction (MI), commonly known as a heart attack, significantly impacts patients' health and quality of life (QoL). In India, the prevalence of coronary artery disease (CAD), the primary cause of MI, has surged dramatically in recent decades, with rates increasing from 2% in urban areas in the 1960s to over 14% in the 2020s. According to the Global Burden of Disease (GBD) study, cardiovascular disease cases in India increased from 2.57 crore in 1990 to 5.45 crore in 2016.

Objective:

1. To assess the Quality of life with Myocardial infarction patient attending cardiac department at Dr. V.V.P. P.R.H. Loni (BK)
2. To find out the association between Quality of life with selected demographic variables.

Methodology: The research methodology adopted for this study was rooted in a quantitative research approach, aiming to collect numerical data and analyze it statistically to assess the variables under investigation. A descriptive cross-sectional design was employed, allowing the researcher to capture a snapshot of the status of the study variables among the target group. The study was conducted in the Cardiac Department of Dr. V.V.P. P.R.H., Loni (BK), which served as the selected setting due to its high patient influx and accessibility. The population for the study comprised all patients diagnosed with myocardial infarction (MI). Impairments or psychiatric disorders that might hinder the ability to provide reliable responses. A sample size of 50 was selected using a non-probability purposive sampling technique, where participants were chosen based on specific characteristics relevant to the study, ensuring that the sample was rich in the data required to fulfil the research objectives.

Results: The data were analyzed using both descriptive and inferential statistics. Section I covered the socio-demographic details, revealing that most respondents were male (60%), aged 51–60 years (36%), from middle-income backgrounds, and had secondary-level education (40%). Section II assessed QoL, with the overall mean QoL score being 52.64 (58.49%), indicating a moderate-to-good quality of life. Among all domains, overall satisfaction scored the highest (72.6%), while psychological well-being was the lowest (53%), highlighting the need for psychological support. Clinical characteristics showed that most patients had moderate MI (56%) and common comorbidities like hypertension (64%) and diabetes (60%). In Section III, significant associations were found between education level and occupation with QoL, while age, gender, and socioeconomic status showed no significant impact. The results underscore the need for holistic care, including education, employment support, and mental health interventions to improve the QoL among MI patients.

Conclusion: The study concludes that quality of life among myocardial infarction patients is moderately good, particularly in the physical and social domains. However, psychological well-being remains an area of concern, requiring urgent attention. The findings emphasize the importance of education and employment in enhancing quality of life, as these factors significantly impact health outcomes.

Nurses, being at the forefront of patient care, have a vital role in enhancing quality of life through education, psychosocial support, and health promotion. With appropriate interventions and support, patients with myocardial infarction can lead fulfilling and meaningful lives.

Keywords: Quality of life, Myocardial infarction, and cardiac department

Introduction

Cardiovascular diseases (CVDs) have emerged as the leading cause of death and disability globally [1]. Among these, myocardial infarction (MI), commonly known as a heart attack, constitutes a major health challenge due to its high morbidity and mortality rates [1]. MI occurs when the blood supply to the heart muscle is blocked, leading to irreversible damage [2]. Advances in medical science have significantly reduced mortality rates; however, the long-term impact on the quality of life (QoL) of survivors remains a major concern.

In India, where the burden of non-communicable diseases is rising, MI is a growing public health issue [3]. Lifestyle changes, urbanization, and increased life expectancy have contributed to the prevalence of coronary artery disease (CAD), the primary cause of MI [3]. While clinical recovery from MI is often achievable, the psychological, social, and economic consequences can severely impact a patient's QoL [4]. Assessing QoL provides a comprehensive understanding of how patients perceive their health and recovery [5]. It highlights the areas that need intervention, guiding healthcare providers to deliver holistic care that addresses physical, psychological, and social dimensions of health.

Method and Material

Research Approach

The approach used for the study is quantitative and evaluative approach.

Research Design Descriptive Cross-Sectional Study:

A one-time observational study to assess the quality of life (QoL) of myocardial infarction (MI) patients attending the outpatient department (OPD) at DR. VVP PRH, Loni.

Setting of the study

The present study was conducted at Dr. Vitthalrao Vikhe Patil Pravara Rural Hospital, Loni Bk.

Population

The population for the study was admitted patients diagnosed with myocardial infarction (MI) receiving treatment in Dr. Vitthalrao Vikhe Patil Pravara Rural Hospital, Loni Bk.

Sample

The sample of the study was the patients diagnosed with myocardial infarction who are attending the Cardiac Department for treatment and follow-up in Dr. Vitthalrao Vikhe Patil Pravara Rural Hospital, Loni Bk.

Sample size

The sample size for the present study was 50 patients diagnosed with myocardial infarction who are attending the Cardiac Department for treatment and follow-up.

Sampling technique

The sampling technique used for the study was the nonprobability purposive sampling technique.

Criteria for selection of sample

Inclusion criteria

Patients with myocardial infarction who:

1. Are attending the Cardiac Department at Dr. V.V.P. P.R.H., Loni (BK) for treatment and follow-up.
2. Are diagnosed with myocardial infarction and have completed at least one-month post- diagnosis.
3. Are willing to participate in the study and provide informed consent.
4. Can communicate in Marathi, Hindi, or English for data collection purposes.
5. Are medically stable at the time of data collection.

Exclusion criteria

Patients with myocardial infarction who:

1. Have severe cognitive impairment or psychiatric illness that may interfere with participation.

2. Are critically ill or admitted in the ICU at the time of data collection.
3. Have any other severe comorbid conditions that might affect their quality-of-life assessment.
4. Are unwilling to participate in the study.
5. The design adopted for the present the study was Pre-experimental one group Pretest Post test design.

Tools and Techniques

The data collection was conducted through interviews and self-reported questionnaires, ensuring participant understanding and completeness of responses. This method allowed the researcher to obtain in-depth and accurate information reflective of the participants' current health status, experiences, and perceived quality of life following myocardial infarction.

Selection of Tool

The tool used for data collection in the study was carefully designed to ensure it captured all relevant data to meet the study objectives.

Section I of the tool consisted of information related to socio demographic variables.

Section II of the tool consisted of Quality-of-Life Scale for Myocardial Infarction Patients.

Result

Description of Quality of Life among MI Patients

Domain	Max Score	Mean Score	Standard Deviation (SD)	Mean %
Physical Well-being	20	11.8	2.5	59%
Psychological Well-being	20	10.6	2.8	53%
Social Relationships	20	11.2	2.6	56%
Functional Well-being	15	8.2	2.1	55%
Overall Satisfaction	15	10.9	1.8	72.6%
Total (out of 90)	90	52.64	3.72	58.49%

Interpretation

- The overall mean QOL score is 52.64 ± 3.72, suggesting that most MI patients in the sample have a good quality of life (based on your interpretation scale).
- Overall satisfaction scored the highest mean percentage (72.6%), indicating that participants are mostly satisfied with treatment and outlook.
- Psychological well-being had the lowest mean percentage (53%), indicating a need for psychological support and interventions.
- Mean percentage across all domains is around 58.49%, reflecting a moderate-to-good level of quality of life.

Association between Quality of Life and Selected Demographic Variables (N = 50)

Sr. No.	Demographic Variable	Category	Good QoL (n)	Poor QoL (n)	Total (n)	χ ² Value	df	p-value	Association
1	Age	Below 30	2	1	3	5.21	4	0.26	Not Significant
		31-40	5	2	7				
		41-50	9	5	14				
		51-60	6	12	18				
		Above 60	2	6	8				
2	Gender	Male	20	10	30	2.13	1	0.14	Not Significant
		Female	8	12	20				
3	Socioeconomic Status	₹10,500 and above	8	2	10	8.76	4	0.067	Not Significant
		₹5,250 – ₹10,499	12	6	18				
		₹3,150 –	5	7	12				

		₹5,249							
		₹1,575 – ₹3,149	2	5	7				
		Below ₹1,575	1	2	3				
4	Education Level	Illiterate	1	5	6	7.98	3	0.046*	Significant
		Primary	3	7	10				
		Secondary	15	5	20				
		Graduate and above	9	5	14				
5	Occupation	Employed	16	6	22	6.22	2	0.044*	Significant
		Unemployed	6	14	20				
		Retired	6	2	8				

*p < 0.05 = Significant Association, df = Degrees of Freedom and χ^2 = Chi-square value

A chi-square test of association was conducted to determine whether selected demographic variables were significantly associated with the quality of life among myocardial infarction patients. The analysis revealed the following:

- **Age:** There was no significant association between age and quality of life ($\chi^2 = 5.21$, df = 4, p = 0.26). This indicates that the quality of life did not differ significantly across various age groups.
- **Gender:** The association between gender and quality of life was found to be not significant ($\chi^2 = 2.13$, df = 1, p = 0.14), suggesting that both males and females experienced similar levels of quality-of-life post-MI.
- **Socioeconomic Status:** The chi-square value was 8.76 with a p-value of 0.067, indicating no statistically significant association. However, the p-value is close to the threshold of 0.05, suggesting a potential trend that might reach significance in a larger sample.
- **Education Level:** A significant association was found between education level and quality of life ($\chi^2 = 7.98$, df = 3, p = 0.046). Patients with higher education levels, particularly those with secondary or higher education, reported better quality of life compared to illiterate or primary-educated individuals.
- **Occupation:** There was a significant association between occupation and quality of life ($\chi^2 = 6.22$, df = 2, p = 0.044). Employed individuals were more likely to report a good quality of life compared to unemployed participants.

Declaration by authors

Ethical approval: the present study was approved by the institutional ethical committee of S.S.E.V.P.CON of PIMS (DU)

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