

Research Article

Health-Related Quality of Life in Myocardial Infarction Patients Undergoing Thrombolytic Therapy vs. Percutaneous Coronary Intervention: A Comparative Study in a Tertiary Care Hospital, Sri Lanka

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Abstract

Background: Thrombolytic therapy and percutaneous coronary intervention (PCI) are non-surgical treatments for patients with myocardial infarction (MI). Health-related quality of life (HRQoL) is used to determine the impact of treatment options on patient outcomes. Evidence comparing thrombolytic therapy and PCI on the quality of life (QoL) of patients with MI in the local context is lacking. This study compares the QoL of patients with MI who underwent thrombolytic therapy or PCI three months after treatment.

Methods: Fifty patients for each group were selected. QoL was assessed using the SF-36 instrument. It contains eight domains; high scores denote high QoL. Data were analyzed using descriptive statistics, Mann-Whitney U-test, and Spearman's correlation coefficient. An alpha level of less than 0.05 was considered statistically significant.

Results: Compared to patients who underwent thrombolytic therapy, significantly higher overall QoL was found among patients who underwent PCI (mean 42.35 vs. 77.69, $p < .001$). Similarly, patients with MI who underwent PCI had significantly higher scores in all eight domains of SF-36 ($p < .001$). Very high scores were found in the domains of role limitation-physical, role limitation-emotional, and emotional well-being (mean ≥ 90) in the PCI group. A remarkable difference in QoL scores was found in the domains of role limitations-physical and role limitations-emotional between the two groups (mean 19.00 vs. 95.50; 37.33 vs. 98.00, respectively). Statistically significant positive intercorrelations were seen between SF-36 domains, more frequently among the thrombolytic group than the PCI group.

Conclusions: Patients with MI who underwent PCI had better QoL than patients who underwent thrombolytic therapy.

Keywords: Myocardial infarction, health-related quality of life, percutaneous coronary intervention, thrombolytic therapy, SF-36 instrument

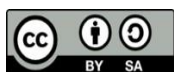
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Introduction

Ischemic heart disease (IHD) is a leading cause of death worldwide (Shu et al., 2024), including in Sri Lanka. It accounts for premature deaths in 146 countries for men and 98 countries for women (World Heart Report, 2023). Ischemic heart disease has been reported as the top cause of annual deaths in Sri Lanka for decades. According to the Annual Health Bulletin (2021), IHD is responsible for 7,150 hospital deaths (men 58.5%, women 41.5%) in Sri Lanka.

Myocardial infarction (MI) is a lethal manifestation of IHD (Wijesinghe et al., 2021) and occurs due to the sudden disruption of blood supply to a part of the heart muscle, consequently leading to irreversible damage and diminished cardiac function (Sachdeva et al., 2023). Among the treatment options for acute MI, reperfusion strategies including thrombolytic therapy and percutaneous coronary intervention (PCI) play important roles in salvaging jeopardized myocardium (Matsuura et al., 2022) and improving outcomes and reducing mortality rates (Sachdeva et al., 2023). As revealed in several studies, PCI is superior to thrombolytic therapy (Andersen et al., 2003; Nielsen et al., 2010; Saito et al., 2022) and is considered a costly (Aasa et al., 2010) and effective therapeutic procedure (Magnuson et al., 2022). Positive outcomes of PCI have been described in previous studies. In Yemen, for a large cohort of patients, PCI resulted in fewer hospital complications and lower mortality rates (AL Maimoony et al., 2023). A larger randomized control trial in Denmark compared the benefits of primary PCI and thrombolytic therapy. It

demonstrated reduced reinfarction and mortality among patients who underwent PCI (Nielsen et al., 2010). Due to limited resources in Sri Lanka, the vast majority of patients with ST-elevation MI (STEMI) undergo thrombolytic therapy instead of PCI (Galappaththy et al., 2018). As reported in a previous study in Sri Lanka among reperfused 407 patients, 384 received thrombolytic therapy, and only 23 underwent primary PCI (Galappaththy et al., 2018). Despite limited resources, a recent local study has confirmed a high procedural success rate and minimal complications among patients treated with PCI (Rahuman et al., 2023).

Quality of life (QoL) and health-related quality of life (HRQoL) are terms often used interchangeably. QoL encompasses various aspects of patients' well-being (Cai et al., 2021). Evaluating the QoL of patients with MI aids in determining the effectiveness of management strategies and identifying both physical and emotional QoL-related issues (Mahesh et al., 2017). Given that MI significantly impacts individuals, families, healthcare systems, and economies (Sachdeva et al., 2023), assessing patients' QoL during the post-treatment phase is crucial for understanding how treatment affects their lives.

As reported globally, the QoL of MI patients is negatively influenced (Hayeah et al., 2017; Zaben & Khalil, 2019). A study among Indonesian post-acute coronary syndrome patients observed a significant correlation between depression and QoL (Nurhamsyah et al., 2022). According to the findings of a Polish study, MI treatment with primary PCI

rather than fibrinolytic treatment, was associated with an earlier return to health, leading to higher QoL (Jeżewski et al., 2009). A review study has concluded that PCI is superior to medical treatment in improving QoL and reducing symptoms of stable IHD (Blankenship et al., 2013). Furthermore, more benefits of PCI were ascertained among patients with few co-morbidities, severe angina, and potential for complete revascularization (Blankenship et al., 2013). After 12 months of follow-up, Seetharam et al. (2023) observed improvements in the physical component of health-related quality of life (HRQoL) among post-PCI patients. Comparative studies of QoL between patients with MI receiving thrombolytic therapy and PCI in the Sri Lankan context are still limited. Since both of these treatment methods are widely used as treatment strategies in the resource-limited local context, understanding the impact of these treatments on patients' QoL is crucial for influencing health authorities to consider possible strategies for improving patient outcomes in the future. Therefore, the present study aimed to compare QoL between patients with MI receiving thrombolytic therapy and PCI.

Methodology

Design and setting

A comparative descriptive cross-sectional study was conducted in the Medical and the Cardiology Clinics at the National Hospital of Sri Lanka (NHSL), Colombo. The NHSL is the final referral center of the country and the largest hospital in Sri Lanka and Southeast Asia. This study was designed to compare the QoL between patients with MI

who had completed three months after thrombolytic therapy and PCI therapy.

Study sample

The sample size was calculated using the following standard formula for comparing two independent means (Rosner, 2015).

$$n = (Z_{\alpha/2} + Z_{\beta})^2 * 2 * \sigma^2 / d^2,$$

Assuming a two-sided alpha level of 0.05 ($Z_{\alpha/2}=1.96$), a power of 80% ($Z_{\beta}=0.84$), a standard deviation (σ) of 20 points in the SF-36 quality-of-life scores, and a clinically meaningful difference (d) of approximately 11 points between the two treatment groups (thrombolysis vs. PCI), the required sample size was estimated as; $n = (1.96 + 0.84)^2 * 2 * 400 / 11^2 \sim 52$. To account for potential dropouts, an additional 10% ($n=5.2$) was added to each group, resulting in a final calculated sample size of 57.2 per group, which was then rounded to 57.

Accordingly, 57 participants per group were invited to participate in the study. Due to the practical constraints of conducting this study in a single tertiary care center, we employed a convenience sampling approach. This technique was chosen because it allowed for the timely and efficient recruitment of participants who met the study's inclusion criteria without the need for more complex, time-consuming, and resource-intensive probability sampling methods.

Adult patients of both genders who underwent thrombolytic therapy or PCI due to acute MI were included in the study. Patients with cognitive impairment, chronic diseases such as renal impairment and hypothyroidism, heart valve problems, a

history of arrhythmia, prior device implantation, late presentation of MI, or those who had been recommended for coronary artery bypass grafting were excluded.

Study Instrument

Two self-administered questionnaires were used for data collection. The first questionnaire consisted of variables including socio-demographic characteristics and patients' medical history. The Sinhala version of the Short Form Health Survey-36 (SF-36) questionnaire was used as the second questionnaire to assess the quality of life of patients with MI who underwent thrombolytic therapy and PCI. The Sinhala version of the SF-36 was validated in the Sri Lankan context and found to be a valid and reliable tool to assess the HRQoL of patients (Gunawardana et al., 2003). The SF-36 questionnaire comprises 36 items that are grouped into eight conceptual domains, namely physical functioning (10 items), role limitations—physical (4 items), bodily pain (2 items), general health (5 items), vitality (4 items), social functioning (2 items), role limitations—emotional (3 items), and mental health (5 items). The score of each subscale is computed on a scale of 0–100, where a high score denotes a high QoL and vice versa.

Data collection

Questionnaires were self-administered during clinic visits after 3 months of particular treatment. Necessary clarifications and explanations were provided to patients upon request. Participants' medical records were reviewed to confirm details regarding their medical history. Completed

questionnaires were collected on the same day. Data were collected for this study from March 1 to March 31, 2018.

Data analysis

Data were analyzed using the Statistical Package for the Social Sciences (SPSS) version 21. Frequencies, percentages, means, and standard deviations were used to summarize demographic variables and describe the scores of the study variables. As QoL scores were skewed, non-parametric tests were performed. The difference in QoL scores between patients who underwent thrombolytic therapy and PCI was determined using the Mann–Whitney U-test. The p-value less than 0.05 was considered statistically significant.

Ethical consideration

Ethical approval for the study was obtained from the Ethics Review Committee of the NHSL, Colombo (Ref. No: ETH/COM/2018/02). Data were collected following the permission of the relevant hospital authorities. All the patients were volunteers in the study and signed informed consent before participating.

Results

Socio-demographic characteristics of the participants

Table 1 shows the socio-demographic characteristics of the participants. Accordingly, most participants were males (73%, n=73) and in the age group of 46 to 60 years (82%, n=82). Most participants were married (92%, n=92) and had studied up to GCE A/L (83%, n=83).

Table 1: Socio-demographic characteristics of the participants (N=100)

Characteristics	Category	Thrombolytic Therapy		PCI	
		n	%	n	%
Gender	Female	17	34	10	20
	Male	33	66	40	80
Age (in years)	31-45	3	06	08	16
	46- 60	41	82	41	82
	> 60	6	12	01	02
Marital status	Single	0	0	06	12
	Married	48	96	44	88
	Widowed	2	04	0	0
Education	Up to GCE O/L	11	22	02	04
	Up to GCE A/L	38	76	45	90
	Up to diploma	1	02	0	0
	Undergraduate/ Graduated	0	0	03	06

PCI: Percutaneous Coronary Intervention

Comorbid conditions and lifestyle factors of the participants

The comorbid conditions of both groups are shown in Table 2. A high proportion of patients in both groups had hypertension (71%, n=71) and diabetes mellitus (74%, n=74). A considerable proportion (72%, n=36) of patients with MI who underwent thrombolytic therapy had a family history of heart disease. In comparison to the patients with MI who underwent PCI, those who underwent thrombolytic therapy were more likely to smoke (48%, n=24 vs. 30%, n=15), consume alcohol (56%, n=28 vs. 46%, n=23), and engage in exercise (62%, n=31 vs. 28%, n=14).

HRQoL of MI patients who underwent thrombolytic therapy and PCI

A comparison of the HRQoL of patients with MI who underwent thrombolytic therapy and PCI is shown in Table 3. The overall mean HRQoL score is significantly higher among patients underwent PCI compared to patient underwent thrombolytic therapy (77.69 vs. 42.35, $p < .001$). Similarly, patients with MI who underwent PCI had significantly higher QoL in all domains of the SF-36 compared to those who underwent thrombolytic therapy ($p < 0.001$). Most of the QoL scores obtained for patients with MI thrombolytic therapy were lower than 50% (mean range 19.0–48.5). Very low scores were found in the domains of role limitations, emotional (mean 19.00) and general health (mean 31.25). In contrast, patients who underwent PCI obtained higher scores in all domains of the

Table 2: Comorbid conditions and lifestyle factors of the participants (N=100)

Variable	Category	Thrombolytic Therapy		PCI	
		n	%	n	%
Hypertension	Yes	32	64	39	78
	No	18	36	11	22
Diabetes	Yes	37	74	37	74
	No	13	26	13	26
Exercise	Yes	31	62	14	28
	No	19	38	36	72
Smoking	Yes	24	48	15	30
	No	26	52	35	70
Alcohol	Yes	28	56	23	46
	No	22	44	27	54
Family history of HD	Yes	36	72	29	46
	No	14	28	21	54

PCI: Percutaneous Coronary Intervention, IHD: Ischemic Heart Disease

Table 3: HRQoL mean percent and SD scores of patients with MI underwent thrombolytic therapy and PCI

Domain	Thrombolytic Therapy			PCI			Sig.
	Mean±SD	Median	IQR	Mean±SD	Median	IQR	
General health	32.00±15.74	27.50	10.00	56.40±15.74	62.50	25.00	p<0.001*
Physical functioning	40.02±22.86	30.00	26.25	75.30±9.60	75.00	10.00	p<0.001*
Pain	39.85±20.43	32.50	32.50	60.40±9.60	55.00	12.50	p<0.001*
Role limitation - Physical	19.00±33.71	0.0	25.00	95.50±17.99	100.00	0.00	p<0.001*
Role limitation- Emotional	37.33±30.59	33.33	16.67	98.00±10.45	100.00	0.00	p<0.001*
Vitality	53.82±18.28	60.00	20.00	76.40±5.80	80.00	10.00	p<0.001*
Social functioning	48.50±23.77	50.00	25.00	69.50±11.61	75.00	12.50	p<0.001*
Emotional well-being	68.28±22.67	70.00	37.00	90.00±3.97	92.00	4.00	p<0.001*
Overall HRQoL	42.35±18.29	40.98	12.01	77.69±7.47	79.69	5.88	p<0.001*

PCI; Percutaneous coronary intervention, HRQoL; Health-related quality of life, SD; Standard deviation, IQR; Interquartile range, *Significance at p<0.01

SF-36 (mean range 54.5–98.0%, median range 55–100%). Very high scores were found in the domains of role limitations, physical, role limitations, emotional, and emotional well-being (mean ≥ 90). A remarkable difference in QoL scores was found in the domains of role limitations, physical and role limitations, emotional between the two groups (mean 19.00 vs. 95.50; 37.33 vs. 98.00, respectively).

Factors associated with HRQoL in MI patients underwent thrombolytic therapy and PCI

Table 4 shows the association between socio-demographic characteristics, comorbidities and lifestyle factors and QoL of MI patients that underwent Thrombolytic Therapy and PCI. In the Thrombolytic Therapy group, the only significant association with QoL was gender, with male patients reporting a higher median QoL score (42.35, IQR: 26.26) than females (37.22, IQR: 19.35; $p=0.003$). In contrast, in the PCI group, a younger age (<45 years) was associated with a higher median QoL (83.06, IQR: 4.83) compared to those ≥ 45 years (78.37, IQR: 6.19; $p=0.001$). Patients without diabetes mellitus had a higher median QoL (81.43, IQR: 5.88) than those with diabetes (78.37, IQR: 6.09; $p=0.041$). Patients without hypertension showed a higher median QoL (83.06, IQR: 4.63) than their hypertensive counterparts (78.06, IQR: 6.06; $p=0.001$). No other socio-demographic, lifestyle, or clinical factors were significantly associated with QoL in either treatment group ($p>0.05$).

Discussion

This study compares the QoL between patients with MI who underwent

thrombolytic therapy and those who underwent PCI after three months of treatment at the tertiary care hospital in Sri Lanka. The study reveals important findings regarding two commonly used but scarcely investigated treatment options for patients with MI in the Sri Lankan healthcare context. Similar to other studies, the sample in the present study was predominantly male (73%) (Mahesh et al., 2017; Nguyen et al., 2020; Rahuman et al., 2023; Salari et al., 2023; Siriyotha et al., 2023; Wijesinghe et al., 2021). Additionally, more than 82% of participants were aged between 46 and 60 years, which is consistent with studies conducted elsewhere (Nurhamsyah et al., 2022; Siriyotha et al., 2023).

After three months, the overall QoL of patients with MI who underwent PCI in the present study was significantly better than that of patients who underwent thrombolytic therapy (mean 77.69 vs. 42.35, $p<.001$). Previous studies have compared QoL scores of IHD patients who underwent PCI at baseline, six months, and 12 months (Tsoulou et al., 2023; Siriyotha et al., 2023). A study in Greece found gradual improvements in QoL scores of patients who underwent PCI at baseline, six months, and 12 months, as measured by the SF-36 (means of 44.36, 59.03, and 64.83, respectively) (Tsoulou et al., 2023). When comparing the QoL scores of the present study at three months (mean 77.69) with the Greece study at six months (mean 59.03), an improvement in QoL was observed among PCI patients in the present study.

When compared to patients with MI who underwent thrombolytic therapy, the mean

Table 4: Association between socio-demographic characteristics, comorbidities, and lifestyle factors and QoL of MI patients underwent Thrombolytic Therapy and PCI

Variable	Category	Thrombolytic therapy			PCI		
		Median	IQR	Sig	Median	IQR	Sig
Age	Below 45	39.79	-	0.728	83.06	4.83	0.001*
	Above 45	40.97	16.73		78.37	6.19	
Gender	Male	42.35	26.26	0.003*	79.84	4.61	0.074
	Female	37.22	19.35		75.00	16.45	
Civil status	Single	39.89	-	0.826	82.50	7.97	0.086
	Married	40.97	15.16		78.68	6.28	
Education	Up to OL	22.37	58.97	0.125	79.90	-	0.901
	Up to AL or above	40.97	7.75		79.21	6.38	
Diabetes Mellitus	Yes	40.97	8.47	0.748	78.37	6.09	0.041*
	No	40.35	50.40		81.43	5.88	
Hypertension	Yes	40.97	9.11	0.864	78.06	6.06	0.001
	No	40.44	32.75		83.06	4.63	
Smoking	Yes	41.32	17.75	0.062	78.06	3.81	0.611
	No	39.14	14.94		80.18	6.75	
Alcohol	Yes	41.32	13.23	0.051	80.42	4.75	0.892
	No	37.98	15.42		78.68	7.06	
Exercise	Yes	40.97	13.42	0.353	79.78	5.88	.627
	No	40.97	12.35		79.21	6.72	
Family history	Yes	40.94	17.22	.820	80.56	4.84	0.105
	No	40.97	9.44		77.75	8.25	

PCI; Percutaneous coronary intervention, HRQoL; Health-related quality of life, SD; Standard deviation, IQR; Interquartile range, *Significance at $p < 0.01$

QoL scores obtained for the domains of general health, physical functioning, pain, vitality, social functioning, and emotional well-being were 22–35% higher among patients with MI who underwent PCI. A remarkable difference in scores (61–76%) was found in the domains of role limitations—physical and role limitations—emotional between patients with MI who underwent thrombolytic therapy and those who underwent PCI (mean 19.00 vs. 95.50; 37.33 vs. 98.00, respectively). This indicates that improvement in physical well-being

eventually leads to improvement in the mental well-being of patients.

The PCI is more effective than thrombolytic therapy in relieving angina (Benzer et al., 2003), reducing the use of antianginal drugs (Norris et al., 2004), increasing exercise capacity, and improving QoL (Henderson et al., 2003). An Indonesian study comparing the effects of PCI on biomarkers and QoL between patients with chronic total coronary artery obstruction observed decreased biomarker levels ($p < .05$) and improvement

in angina severity in the PCI group compared to the non-PCI group ($p < .039$) (Artha et al., 2023). These changes possibly contributed to the improved QoL of patients in the PCI group compared to the thrombolytic group. The PCI procedure was found to be favorable in patients with coronary artery obstruction due to its ability to relieve ischemia. This ischemia leads to refractory angina (a symptom of persistent chest pain), causing patients to suffer from discomforts that eventually impede QoL (Ahn et al., 2019). Furthermore, the improvement of blood flow due to PCI boosts heart function and reduces chronic inflammation of the heart muscle. As witnessed by Hirai et al. (2019), reductions in angina frequency, improvements in QoL, and higher patient satisfaction with the therapy were observed among patients who underwent PCI. Improved angina relief after PCI in the present study may have contributed to the higher SF-36 scores compared to patients who received thrombolytic therapy.

Comparable findings to the present study have been reported elsewhere. Weintraub et al. (2008) reported a significant improvement in QoL in patients who received PCI compared to those who did not. A randomized controlled trial in the United Kingdom (UK) evaluating the impact of percutaneous transluminal coronary angioplasty (PTCA) and medical treatment on self-perceived QoL among patients with angina found a substantial improvement in QoL among patients in the PTCA group (Pocock et al., 2000). Even though the magnitude of the difference was slight, significant improvements were evident in the PTCA group compared to the medical

treatment group in the domains of physical functioning, vitality, and general health at both three-month and one-year follow-ups. A study comparing HRQoL before and after three months of PCI among Hong Kong Chinese patients with coronary artery disease showed significant improvements in all SF-36 domains (Wong & Chair, 2006). Another recent study compared QoL in patients undergoing PCI at baseline, six months, and 12 months in all domains of SF-36 and observed significantly higher scores, especially in physical functioning, physical role, and social functionality ($p < .001$) (Tsoulou et al., 2023). In contrast to the present findings, the UK study reported higher but less significant scores for physical and emotional role functioning, social functioning, pain, and mental health in the PTCA group over the medical group (Pocock et al., 2000).

Similar to the study by Tsoulou et al. (2023), our present findings show considerably higher scores for role limitations—physical (45.5 vs. 95.5), role limitations—emotional (55.0 vs. 98.0), and vitality (52.8), and a lower score for pain (73.0 vs. 60.4). These differences may be attributed to the characteristics of the sample. Compared to the study by Tsoulou et al. (2023), the present study participants were younger (<60 years: 82% vs. 36%) and more likely to be married (92% vs. 66%). Supporting this claim, previous studies have confirmed improved QoL among participants who were younger compared to older individuals (Siriyotha et al., 2023) and among males compared to females (Siriyotha et al., 2023; Vu et al., 2023).

The present findings revealed some associations between socio-demographic characteristics, comorbidities, and lifestyle factors with QoL in MI patients who underwent either thrombolytic therapy or PCI. As found, QoL of male patients in the thrombolytic therapy was found to be significantly higher than females (median 42.35, IQR: 26.26 vs. 37.22, IQR: 19.35; $p = .003$). It is consistent with previous findings indicating that men typically report better QoL (Siriyotha et al., 2023; Vu et al., 2023). There was no difference between QoL for males and females after PCI.

As revealed in the PCI group, significantly higher QoL was observed among younger patients than older patients (<45 years; 83.06, IQR: 4.83 vs. 78.37, IQR: 6.19; $p = .001$), and among patients without diabetes mellitus (81.43, IQR: 5.88 vs. 78.37, IQR: 6.09; $p = .041$) and without hypertension (83.06, IQR: 4.63 vs. 78.06, IQR: 6.06; $p = .001$). These results align with evidence showing that QoL improves following PCI (Dimagli et al., 2023) to a greater extent when patients are younger (Conradie et al., 2022) and in the absence with comorbidities such as hypertension (Pons et al., 2022) and diabetes (Conradie et al., 2022). Compared to younger patients, older adults often have a higher burden of complex coronary artery disease, multiple comorbidities (Cacciatore et al. 2023), and slower recovery, which can reduce QoL improvements after PCI. As Blankenship et al. (2013) concluded, some co-morbidities limit QoL before and after PCI and may minimize any improvement in QoL. Other factors, including smoking status, alcohol consumption, family history

of heart disease, and exercise, did not reach statistical significance (all $p > .05$). While some studies suggest that smoking cessation (Pons et al., 2022), cardiac rehabilitation, and freedom from recurrent angina can improve QoL post-PCI (Blankenship et al. (2013), these associations were not observed in our sample—possibly due to differences in baseline characteristics, timing of assessments, or limited sample sizes. Overall, these findings underscore the importance of individual patient characteristics, such as gender, age, and the presence of comorbidities, when considering QoL outcomes following MI treatment.

Limitations

This study has several limitations. Firstly, the absence of baseline QoL data prevented us from assessing changes within the same group over time. Secondly, as the study was conducted in a single hospital setting with a relatively small sample, the generalizability of these findings to other populations and settings may be limited. Additionally, the use of a self-administered questionnaire may introduce social desirability bias, as participants could be inclined to report more favorable outcomes than they actually experienced. Such response patterns may overestimate the true QoL levels. Future research should consider addressing these limitations by including baseline assessments, recruiting from multiple centers, increasing the sample size, and exploring data collection methods that minimize the potential for bias. Moreover, future studies should consider other factors not included in the present study that may affect QoL, such as family support,

medications, complementary therapies, previous experiences, caregiver support, and economic burdens.

Conclusions

The present study uncovers important findings regarding the QoL of MI patients who underwent two common therapies in the Sri Lankan context. After three months of treatment, patients who underwent PCI reported significantly higher overall QoL compared to those who received thrombolytic therapy. The differences in improvement across the eight domains of the SF-36 were significant, with higher scores observed in the PCI group. Notably, in the Thrombolytic Therapy group, male gender was associated with higher QoL, whereas in the PCI group, younger age (<45 years) and the absence of diabetes mellitus and hypertension were linked to higher QoL. These findings emphasize the need for personalized care approaches that address the specific HRQoL domains most affected by each treatment modality. By recognizing and targeting these areas, healthcare providers can enhance the overall recovery and well-being of patients with MI. The present findings highlight the importance of considering QoL outcomes in clinical decision-making for treatment options and employing appropriate interventions to optimize patients' QoL. Further studies are warranted to confirm these results and explore strategies to improve HRQoL in patients with MI.

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Conflicts of Interest

The authors declare that they have no conflicts of interest.

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