



The Relationship between Medication Adherence, Self-Efficacy, and Quality of Life in Patients with Acute Myocardial Infarction

Melinar Fitra Zahrani Moha¹, Chamim Faizin², Nina Anggraeni Noviasari²

¹Undergraduate student of Medical Faculty in Muhammadiyah University Semarang, Indonesia

²Lecture of Medical Faculty in Muhammadiyah University Semarang, Indonesia

*Corresponding Author: Melinar Fitra Zahrani Moha

Email: fitramelinar@gmail.com



Article Info

Article history:

Received 8 April 2026

Received in revised form 9

May 2026

Accepted 21 June 2026

Keywords:

Acute Myocardial Infarction

Medication Adherence

Self-Efficacy

Quality of Life

Abstract

AMI is one of the most serious cardiovascular diseases, associated with impaired quality of life, increased morbidity and mortality, making it the number one cause of death in the world. The use of medications for secondary prevention is a cornerstone in the treatment of coronary artery disease. Self-efficacy is an important predictor of adherence to treatment. Therefore, high self-efficacy is associated with health which can improve the patient's quality of life. The aim of this study was to analyze the relationship between medication adherence and self-efficacy with the quality of life of patients who had been diagnosed with acute myocardial infarction at Muhammadiyah Hospital Semarang. The type of quantitative research was analytical observational with a cross-sectional approach. Research respondents were patients who had been diagnosed with AMI from June 2022-June 2023 who were taken through total sampling taking through the sample criteria. Inclusion was 47 and exclusion was 27 respondents. Data analysis uses the chi-square test, significant if $p < 0.05$. 34 respondents were compliant in taking medication (72.3%), 13 respondents were not compliant in taking medication (27.7%). 28 respondents had high self-efficacy (59.6%), 19 respondents had low self-efficacy (40.4%). 38 respondents had a good quality of life (80.9%) and 9 respondents had a poor quality of life (19.1%). As a result, there is no relationship between medication adherence with the quality of life of acute myocardial infarction patients. There is a relationship between self-efficacy with the quality of life of acute myocardial infarction patients.

Introduction

Cardiovascular disease remains one of the leading global health problems, with coronary heart disease as one of its major clinical manifestations (Joseph et al., 2017; Sulashvili & Nimangre, 2025; Hamid et al., 2025). Acute myocardial infarction (AMI) is among the most serious forms of coronary artery disease because it is associated with impaired quality of life, increased morbidity, and high mortality risk (Wang et al., 2019; Tokarewicz et al., 2025; Yi et al., 2025;). Patients who survive AMI may continue to experience long-term physical, psychological, and social consequences that affect their daily functioning and overall well-being.

According to the World Health Organization, cardiovascular disease is the leading cause of death worldwide, accounting for approximately 31% of all global deaths, or around 17.9 million deaths annually. This burden is even higher in low- and middle-income countries, where most cardiovascular-related deaths occur. Survivors of AMI also remain at risk of

recurrent infarction and increased annual mortality (WHO, 2021). In Indonesia, specific epidemiological data on AMI remain limited. However, the 2018 Basic Health Research report showed that the prevalence of heart disease in Indonesia was 1.5%, while in Central Java Province it reached 1.6% (RISKESDAS, 2018).

The management of AMI does not end after acute treatment. Long-term secondary prevention is essential to reduce the risk of recurrence, complications, and mortality (Tuka et al., 2022; Giubilato et al., 2023; Greco et al., 2023). Medication therapy is one of the main components of secondary prevention in patients with coronary artery disease. Nevertheless, medication adherence among patients with cardiovascular disease remains suboptimal in many settings (Rahhal et al., 2020). Non-adherence to prescribed medication is a serious challenge in the long-term management of myocardial infarction because it may lead to adverse medical, social, and economic consequences (Desta et al., 2021; Pietrzykowski et al., 2020). Medication adherence may be influenced by various factors, including individual awareness, family support, social support, access to health services, and patients' understanding of their treatment (Zhou et al., 2022).

In addition to medication adherence, self-efficacy is an important psychological factor in the management of chronic cardiovascular conditions (Yao et al., 2026; Chen et al., 2023; Pierobon et al., 2023). Self-efficacy refers to an individual's belief in their ability to perform behaviors required to manage health problems and achieve desired outcomes. In patients with coronary artery disease, self-efficacy is considered an important predictor of treatment adherence and health-related behavior, particularly among individuals facing physical, psychological, and social challenges. Higher self-efficacy is associated with better health outcomes and may contribute to improved quality of life (Nikraftar et al., 2021; Salmanpour et al., 2025; Pahn et al., 2025).

Quality of life is an important outcome among patients with AMI because the disease may affect emotional, physical, and social well-being (Huda et al., 2026; Sutanto et al., 2026). Previous studies have shown that the quality of life of patients after AMI is influenced by several domains, including emotional well-being, physical functioning, and social relationships (Bahall et al., 2018; Moreira et al., 2024). Emotional and physical disturbances after AMI may persist and interfere with lifestyle, daily activities, work, and social participation. Problems such as stress, hopelessness, decreased confidence, fatigue, and difficulties in social interaction may contribute to a decline in long-term quality of life (Barham et al., 2019; Egger et al., 2024; Lin et al., 2025; Maddah et al., 2024).

Identifying factors associated with quality of life in patients with AMI is important to support long-term recovery and rehabilitation (Füller et al., 2025; Limonti et al., 2025; Rashidi et al., 2025). Although medication adherence and self-efficacy have been widely discussed as important factors in cardiovascular care, their relationship with quality of life among AMI patients in local hospital settings still requires further investigation. A preliminary study conducted on June 9, 2023, at Roemani Muhammadiyah Hospital Semarang showed that 29 patients were diagnosed with myocardial infarction from January to June 2023. This finding indicates the need to examine factors that may influence the quality of life of AMI patients in this

Methods

This study employed a quantitative analytical observational design with a cross-sectional approach. This design was used to examine the relationship between medication adherence and self-efficacy with the quality of life among patients diagnosed with acute myocardial infarction. The study was conducted at Roemani Muhammadiyah Hospital Semarang from October to November 2023.

The study population consisted of all patients diagnosed with acute myocardial infarction at Roemani Muhammadiyah Hospital Semarang during the period of June 2022 to June 2023. Based on hospital medical record data, there were 74 patients diagnosed with acute myocardial infarction during this period. The sampling technique used was total sampling, in which all patients who met the predetermined inclusion and exclusion criteria were included as research respondents.

The inclusion criteria were patients diagnosed with acute myocardial infarction, patients who received treatment or follow-up care at Roemani Muhammadiyah Hospital Semarang, patients who were willing to participate in the study, and patients who were able to communicate and complete the research questionnaires. The exclusion criteria were patients who had died, patients who lived outside Semarang and could not be reached during data collection, patients who refused to participate, patients with incomplete medical record data, and patients with severe cognitive impairment based on the Mini Mental State Examination assessment.

After applying the inclusion and exclusion criteria, 47 patients were included as respondents in this study. Meanwhile, 27 patients were excluded, consisting of 14 patients who had died, 5 patients who lived outside Semarang, 2 patients who were unwilling to participate, 2 patients with incomplete medical records, and 4 patients with severe cognitive impairment.

The data used in this study consisted of primary and secondary data. Primary data were obtained through questionnaires completed by respondents, while secondary data were obtained from medical records to confirm the diagnosis of acute myocardial infarction and respondents' clinical eligibility. The instruments used in this study included the Mini Mental State Examination to assess cognitive function, the Morisky Medication Adherence Scale-8 to assess medication adherence, the General Self-Efficacy Scale to assess self-efficacy, and the MacNew Health-Related Quality of Life questionnaire to assess the quality of life of patients with cardiovascular disease.

The independent variables in this study were medication adherence and self-efficacy, while the dependent variable was quality of life. Medication adherence was categorized into compliant and non-compliant based on the MMAS-8 scoring criteria. Self-efficacy was categorized into low and high based on the General Self-Efficacy Scale scoring results. Quality of life was categorized into poor and good based on the MacNew Health-Related Quality of Life questionnaire scoring criteria.

Data were analyzed using univariate and bivariate analyses. Univariate analysis was conducted to describe the demographic characteristics of respondents, including age, sex, education level, employment status, duration of illness, medication adherence, self-efficacy, and quality of life. The results were presented in the form of frequencies and percentages. Bivariate analysis was conducted to examine the relationship between medication adherence and quality of life, as well as the relationship between self-efficacy and quality of life. The Chi-square test was used for bivariate analysis, with a significance level of $p < 0.05$.

Result and Discussion

The research was conducted using observational analytic use *cross design sectional*. Total patients infarction myocardial The number of acute cases at Muhammadiyah Hospital Semarang from June 2022 to June 2023 was 74 people. After done grouping based on criteria research, total that meets the requirements totaling 47 samples which became respondents in this study, while 27 samples other No made into respondents Because No fulfil criteria subject research. Among them, 14 died, 5 lived outside city Semarang, 2 no willing, 2 data records medical No complete, and 4 others experience disturbance cognitive heavy.

Analysis Univariate

Characteristics Respondents

Table 1. Characteristics Respondents

| Characteristics Respondents | Frequency (n) | Percentage (%) |
|-------------------------------|---------------|----------------|
| Age | | |
| 30–40 years | 3 | 6.4 |
| 41–50 years | 3 | 6.4 |
| 51–60 years | 13 | 27.7 |
| 61–70 years | 16 | 34 |
| 71–80 years | 8 | 17 |
| ≥ 81 years | 4 | 8.5 |
| Male gender | | |
| Woman | 22 | 46.8 |
| Education | | |
| Elementary school/equivalent | 11 | 23.4 |
| Junior high school/equivalent | 11 | 23.4 |
| High school/equivalent | 14 | 29.8 |
| Bachelor/diploma | 11 | 23.4 |
| Work | | |
| Work | 34 | 72.3 |
| Doesn't work | 13 | 27.7 |
| Long Suffering | | |
| 0–4 years | 45 | 95.7 |
| ≥ 5 years | 2 | 4.3 |

Table 1 shows that the average age of respondents was 61-70 years (34%), with a male predominance (53.2%). The predominant education level was high school graduates/equivalent (29.8%), with an average of 72.3% of patients employed. Most had long- term respondents not enough from 5 years as much as 95.7%.

Compliance Take medicine

Table 2. Compliance Overview Respondent 's Medication

| Compliance Take medicine | Frequency (n) | Percentage (%) |
|--------------------------|---------------|----------------|
| Not obey | 13 | 27.7 |
| Obedient | 34 | 72.3 |
| Amount | 47 | 100 |

Based on table the can seen part Lots respondents have compliance drink the medicine that is 72.3 % of respondents were in the ' compliant ' category, followed by 27.7% of those in the 'non-compliant' category. Therefore, it can be concluded that the majority of respondents were in the 'compliant' category regarding medication adherence.

Self-Efficacy

Table 3. Description of Respondents ' Self -Efficacy

| Self -Efficacy | Frequency (n) | Percentage (%) |
|----------------|---------------|----------------|
| Low | 19 | 40.4 |
| Tall | 28 | 59.6 |
| Amount | 47 | 100 |

Based on the table, it can be seen that the majority of respondents have self-efficacy in the 'high' category, with a percentage of 59.6%. This is followed by the 'low' category, with a percentage of 40.4%. Therefore, it can be concluded that the majority of respondents have self-efficacy in the 'high' category.

Quality of Life

Table 4. Overview of Respondents' Quality of Life

| Quality of Life | Frequency (n) | Percentage (%) |
|-----------------|---------------|----------------|
| Bad | 9 | 19.1 |
| Good | 38 | 80.9 |
| Amount | 47 | 100 |

Based on the table, it can be seen that 80.9% of respondents have a quality of life that falls into the 'good' category, while 19.1% fall into the 'poor' category. Therefore, it can be concluded that the majority of respondents have a quality of life that falls into the 'good' category.

Analysis Bivariate

Table 5. Cross Tabulation Table of Relationships Compliance Taking Medications and the Quality of Life of AMI Patients

| KMO | Quality of Life | | | | Total | | p-value |
|--------------|-----------------|-------------|-----------|-------------|-----------|------------|--------------|
| | Bad | | Good | | n | % | |
| | n | % | n | % | | | |
| Not obey | 5 | 38.5 | 8 | 61.5 | 13 | 27.7 | 0.091 |
| Obedient | 4 | 11.8 | 30 | 88.2 | 34 | 72.3 | |
| Total | 9 | 19.1 | 38 | 80.9 | 47 | 100 | |

Based on the table, it was found that the infarction patients Patients with acute myocardial infarction who were categorized as "compliant" had a poor quality of life (QoL) of 11.8%, while 88.2% of patients with "non-compliant" had a poor quality of life (QoL) of 38.5%, while 61.5% had a good quality of life (QoL).

Based on results statistical analysis using the *chi square* test was obtained mark *p value* (0.091) > 0.05. This means, no existence connection compliance drink quality medicine life patient infarction myocardial I.

Table 6. Cross Tabulation Table of Relationships Self-Efficacy and Quality of Life in AMI Patients

| Self-Efficacy | Quality of Life | | | | Total | | p-value |
|---------------|-----------------|-------------|-----------|-------------|-----------|------------|--------------|
| | Bad | | Good | | n | % | |
| | n | % | n | % | | | |
| Low | 9 | 47.4 | 10 | 52.6 | 19 | 40.4 | 0,000 |
| Tall | 0 | 0 | 28 | 100 | 28 | 59.6 | |
| Total | 9 | 19.1 | 38 | 80.9 | 47 | 100 | |

In the table seen patient infarction myocardial I have efficacy self low with a poor quality of life of 47.4 % while patients with good quality of life were 52.6 %. And, patients with efficacy self high quality live well as much as 100%.

Based on results analysis statistics using the *chi square* test, it was obtained mark *p value* (0.000) < 0.05. This means that there is connection efficacy yourself with quality life patient infarction myocardial I.

Based on the results research that has been done implemented, can interpreted that No There is connection compliance drink quality medicine alive, but existence connection efficacy yourself with quality life patient infarction myocardial I.

In this study, 34 respondents (72.3%) were found to have compliance drink drugs and 13 respondents others (27.7%) have non-compliance in drink medicine. A number of things that can give influences, including is respondents who have awareness full For drinking medicine, the presence of family plays a role in remind patient For drink medicine, as well as factor economy different patients. In addition, there is factor treatment like duration required time For consume medicines, many type medication that must be drunk, and effect side effects experienced by some patients. Another factor is poor access to healthcare facilities. This aligns with the researchers' observations during direct research, where the majority of respondents live far from healthcare facilities. The above data aligns with previous research, identifying socioeconomic factors as influencing medication adherence over time. (Pietrzykowski et al., 2020) Most compliant respondents drink drug have quality good life. However, respondents who did not obedient drink drug anyone has quality live well too. Thus, based on results testing obtained No existence connection significant between compliance drink medicine and quality life life patient infarction myocardial acute. Compared contrary to research previously, it was obtained statistical test results $p < 0.1$ where show existence relationship with significance positive between compliance drink medicine and quality life patient syndrome coronary acute. (Zakeri et al., 2023) Several possibilities results different research, namely sometimes compliance drink this drug does not correlated directly with quality life patients. However, some causes that affect compliance can in a way No direct related to the management process disease. In addition, it is related to limitations research that uses design cross-sectional study, in which results can different seen from period time and sample used different in every study.

Research result furthermore prove existence connection efficacy self and quality life patient infarction myocardial acute. The data above in line with the existence of study previously stated levels greater efficacy low can predict quality bad life. Research conducted on 47 respondents, obtained part respondents have level efficacy low own quality life bad (47.4%) and others are good (52.6%), while all respondents who have level efficacy self tall have quality live well (100%). Because This disease requires chronic management, patients with confidence oneself to one's potential For handle his illness will more perhaps in order to carry out beneficial and more changes Possible For experience results health term better length. In addition, with the presence of form persuasi from the closest people especially family can help give belief to sufferers For tend try more hard in get quality life better.

From research obtained as much as 81% of respondents have quality live well and the other 19% with quality life bad. Several factors influence this, including factor biology where in This study shows that that respondents with type sex man have quality life better than women. (Beckman et al., 2016) In addition, the factor the emotions in it there is efficacy self can also influence quality life patient. Furthermore, the factors physique in matter doing activities or sports, some big respondents state more fast experience fatigue compared to before suffer this disease. Some respondents who are accustomed to do sport light such as regular walking tends to have quality good life compared to infrequent respondents or No The same very carry out exercise Physical fitness. This is supported by previous research that suggests exercise capacity can improve patients' quality of life. (Daniel et al., 2017) Another factor is support from those around them, namely family. Respondents with support tend to be compliant and have self-efficacy to achieve a good quality of life. This data aligns with previous research that suggests the support of family and those around them is essential for patients to improve their quality of life. (Johnston et al., 2016; Carlini et al., 2022; Pinto et al., 2024; Sibuea et al., 2024)

Conclusion

This study found that most patients with acute myocardial infarction had good medication adherence, high self-efficacy, and good quality of life. The results showed that medication adherence was not significantly associated with quality of life among patients with acute myocardial infarction. However, self-efficacy was significantly associated with quality of life, indicating that patients with higher self-efficacy tended to have better quality of life. These findings suggest that psychological factors, particularly patients' confidence in managing their health condition, may play an important role in improving quality of life after acute myocardial infarction. Therefore, healthcare providers should not only focus on medication adherence but also strengthen patients' self-efficacy through education, counseling, family support, and continuous follow-up care.

References

- Bahall M, Khan K. 2018. Quality of life of patients with first-time AMI: A descriptive study. *Health and Quality of Life Outcomes*; 16:32 <https://doi.org/10.1186/s12955-018-0860-8>
- Barham A, Ibraheem R, Zyoud SH. 2019. Cardiac self-efficacy and quality of life in patients with coronary heart disease: A cross-sectional study from Palestine. *BMC Cardiovasc Disord*. 19:290 <https://doi.org/10.1186/s12872-019-01281-7>.
- Beckman AL, Bucholz EM, Zhang W, Xu X, Dreyer RP, Strait KM, et al. 2016. Sex differences in financial barriers and the relationship to recovery after acute myocardial infarction. *Journal of the American Heart Association*. ;5: e003923. <https://doi.org/10.1161/JAHA.116.003923>
- Carlini, J., Bahudin, D., Michaleff, Z. A., Plunkett, E., Shé, É. N., Clark, J., & Cardona, M. (2022). Discordance and concordance on perception of quality care at end of life between older patients, caregivers and clinicians: a scoping review. *European geriatric medicine*, 13(1), 87-99. <https://doi.org/10.1007/s41999-021-00549-6>
- Chen, J., Tian, Y., Yin, M., Lin, W., Tuersun, Y., Li, L., ... & He, F. (2023). Relationship between self-efficacy and adherence to self-management and medication among patients with chronic diseases in China: A multicentre cross-sectional study. *Journal of psychosomatic research*, 164, 111105. <https://doi.org/10.1016/j.jpsychores.2022.111105>
- Daniel M, Agewall S, Caidahl K, Collste O, Ekenbäck C, Frick M, et al. 2017. Effect of Myocardial Infarction With Nonobstructive Coronary Arteries on Physical Capacity and Quality-of-Life. *American Journal of Cardiology*. 120(3):341–6. <https://doi.org/10.1016/j.amjcard.2017.05.001>
- Desta L, Khedri M, Jernberg T, Andell P, Mohammad MA, Hofman-Bang C, et al. 2021. Adherence to beta-blockers and long-term risk of heart failure and mortality after a myocardial infarction. *ESC Heart Failure*. 8(1):344–55. <https://doi.org/10.1002/ehf2.13079>
- Egger, M., Wimmer, C., Stummer, S., Reitelbach, J., Bergmann, J., Müller, F., & Jahn, K. (2024). Reduced health-related quality of life, fatigue, anxiety and depression affect COVID-19 patients in the long-term after chronic critical illness. *Scientific reports*, 14(1), 3016. <https://doi.org/10.1038/s41598-024-52908-5>
- Füller, D., Andresen-Bundus, H., Pagonas, N., Jaehn, P., Ukena, C., Gödde, K., ... & Sasko, B. (2025). Adverse socioeconomic factors are associated with a widening gap in one-year health-related quality of life after acute myocardial infarction. *Scientific Reports*, 15(1), 19791. <https://doi.org/10.1038/s41598-025-04604-1>

- Giubilato, S., Luca, F., Abrignani, M. G., Gatto, L., Rao, C. M., Ingianni, N., ... & Gulizia, M. M. (2023). Management of residual risk in chronic coronary syndromes. Clinical pathways for a quality-based secondary prevention. *Journal of clinical medicine*, 12(18), 5989. <https://doi.org/10.3390/jcm12185989>
- Greco, A., Occhipinti, G., Giacoppo, D., Agnello, F., Laudani, C., Spagnolo, M., ... & Capodanno, D. (2023). Antithrombotic therapy for primary and secondary prevention of ischemic stroke: JACC state-of-the-art review. *Journal of the American College of Cardiology*, 82(15), 1538-1557.
- Hamid, M., Hajjej, F., Alluhaidan, A. S., & bin Mannie, N. W. (2025). Fine tuned CatBoost machine learning approach for early detection of cardiovascular disease through predictive modeling. *Scientific reports*, 15(1), 31199. <https://doi.org/10.1038/s41598-025-13790-x>
- Huda, N., Khoiriyati, A., & Huriyah, T. (2026). Spiritual Well-Being in Coronary Heart Disease Patients: A Scoping Review. *Journal of Religion and Health*, 1-18. <https://doi.org/10.1007/s10943-025-02555-5>
- Johnston N, Bodegard J, Jerström S, Åkesson J, Brorsson H, Alfredsson J, et al. 2016. Effects of interactive patient smartphone support app on drug adherence and lifestyle changes in myocardial infarction patients: A randomized study. *American Heart Journal*. ;178:85–94. <https://doi.org/10.1016/j.ahj.2016.05.005>
- Joseph, P., Leong, D., McKee, M., Anand, S. S., Schwalm, J. D., Teo, K., ... & Yusuf, S. (2017). Reducing the global burden of cardiovascular disease, part 1: the epidemiology and risk factors. *Circulation research*, 121(6), 677-694.
- Limonti, F., Gigliotti, A., Cecere, L., Varvaro, A., Bosco, V., Mazzotta, R., ... & Ramacciati, N. (2025). Evaluating the efficacy and impact of home-based cardiac telerehabilitation on health-related quality of life (HRQOL) in patients undergoing percutaneous coronary intervention (PCI): A systematic review. *Journal of Clinical Medicine*, 14(14), 4971. <https://doi.org/10.3390/jcm14144971>
- Lin, L., Lin, H., Zhou, R., Liu, B., Liu, K., & Jiang, R. (2025). Surviving and thriving: Assessing quality of life and psychosocial interventions in mental health of head and neck cancer patients. *Asian Journal of Surgery*, 48(3), 1634-1642. <https://doi.org/10.1016/j.asjsur.2024.11.048>
- Maddah, Z., Negarandeh, R., Rahimi, S., & Pashaeypoor, S. (2024). Challenges of living with veterans with post-traumatic stress disorder from the perspective of spouses: a qualitative content analysis study. *BMC psychiatry*, 24(1), 151. <https://doi.org/10.1186/s12888-024-05572-y>
- Moreira, J., Bravo, J., Aguiar, P., Delgado, B., Raimundo, A., & Boto, P. (2024). Physical and mental components of quality of life after a cardiac rehabilitation intervention: a systematic review and meta-analysis. *Journal of Clinical Medicine*, 13(18), 5576. <https://doi.org/10.3390/jcm13185576>
- Nikraftar F, Mazloum SR, Dastani M, Heshmati Nabavi F. 2021. Medication Self-efficacy and Its Related Factors: A Cross-sectional Study on Patients with Coronary Artery Disease in North East of Iran. *Mod Care Journal*. 17(4). <https://doi.org/10.5812/modernc.111467>.
- Pahn, J., Yang, Y., & Kim, S. H. (2025). Factors influencing self-management and health-related quality of life in low-income patients with diabetes: a predictive model. *International Journal of Nursing Studies Advances*, 8, 100349.

- Pierobon, A., Zanatta, F., Granata, N., Nissanova, E., Polański, J., Tański, W., ... & Ferretti, C. (2023). Psychosocial and behavioral correlates of self-efficacy in treatment adherence in older patients with comorbid hypertension and type 2 diabetes. *Health Psychology Report, 11*(3), 188. <https://doi.org/10.5114/hpr/159284>
- Pietrzykowski Ł, Michalski P, Kosobucka A, Kasprzak M, Fabiszak T, Stolarek W, et al. 2020. Medication adherence and its determinants in patients after myocardial infarction. *Scientific Reports, 10*(1):1–11. <https://doi.org/10.1038/s41598-020-68915-1>
- Pinto, S., Lopes, S., de Sousa, A. B., Delalibera, M., & Gomes, B. (2024). Patient and family preferences about place of end-of-life care and death: an umbrella review. *Journal of pain and symptom management, 67*(5), e439-e452. <https://doi.org/10.1016/j.jpainsymman.2024.01.014>
- Rahhal A, Mahfouz A, et al. 2020. Medications adherence post-primary percutaneous coronary intervention in acute myocardial infarction: A population-based cohort study. *Journal of Clinical Pharmacy and Therapeutics, 46*(3), 772–779. <https://doi.org/10.1111/jcpt.13348>
- Rashidi, A., Whitehead, L., Halton, H., Munro, L., Jones, I., & Newson, L. (2025). The changes in health-related quality of life after attending cardiac rehabilitation: A qualitative systematic review of the perspective of patients living with heart disease. *Plos one, 20*(1), e0313612. <https://doi.org/10.1371/journal.pone.0313612>
- Salmanpour, N., Salehi, A., Nemati, S., Rahmanian, M., Zakeri, A., Drissi, H. B., & Shadzi, M. R. (2025). The effect of self-care, self-efficacy, and health literacy on health-related quality of life in patients with hypertension: a cross-sectional study. *BMC Public Health, 25*(1), 2630. <https://doi.org/10.1186/s12889-025-23914-7>
- Sibuea, Z. M., Sulastiana, M., & Fitriana, E. (2024). Factor affecting the quality of work life among nurses: A systematic review. *Journal of multidisciplinary healthcare, 4*91-503. <https://doi.org/10.2147/JMDH.S446459>
- Sulashvili, N., & Nimangre, R. R. (2025). Manifestation of some aspects of cardiovascular diseases, implications, pharmacotherapeutic strategies, effects, impacts and potential hazards in general. *Junior Researchers, 3*(1), 1-27. <https://doi.org/10.52340/jr.2025.03.01.01>
- Sutanto, H., Savitri, M., Hendarsih, E., & Ashariati, A. (2026). Stage-Dependent Differences in Quality of Life Among Breast Cancer Patients Prior to Initiation of a Line of Systemic Therapy: A Cross-sectional Study. *Asian Pacific Journal of Cancer Care, 11*(3), 429-440. <https://doi.org/10.31557/apjcc.2026.11.3.429-440>
- Tokarewicz, J., Jankowiak, B., Klimaszewska, K., Święczkowski, M., Matlak, K., & Dobrzycki, S. (2025). Acceptance of Illness and Health-Related Quality of Life in Patients After Myocardial Infarction—Narrative Review. *Journal of Clinical Medicine, 14*(3), 729. <https://doi.org/10.3390/jcm14030729>
- Tuka, V., Holub, J., & Bělohávek, J. (2022). Secondary prevention after myocardial infarction: what to do and where to do it. *Reviews in Cardiovascular Medicine, 23*(6), 210. <https://doi.org/10.31083/j.rcm2306210>
- Wang H, Zhao T, Wei X, Lu H, Lin X. 2019. The prevalence of 30-day readmission after acute myocardial infarction. *Clinical Cardiology, John Wiley and Sons Inc.* 889–898. <https://doi.org/10.1002/clc.23238>
- WHO. 2021. Cardiovascular Diseases. Available from: <https://www.who.int/health-topics/cardiovascular-diseases>

- Yao, Z., Wang, Y., Shi, S., Wang, M., & Zhong, Z. (2026). Psychological determinants of medication adherence in patients with hypertension: a systematic review and meta-analysis. *Journal of Behavioral Medicine*, 1-14. <https://doi.org/10.1007/s10865-026-00637-7>
- Yi, X., Zhang, Q., Qi, H., Yan, Q., & Peng, X. (2025). The impact of nurse-led peer support interventions on psychological Status and quality of life after acute myocardial infarction stent implantation in China. *Journal of Cardiovascular Nursing*, 10-1097. <https://doi.org/10.1097/JCN.0000000000001247>
- Zakeri MA, Tavan A, Nadimi AE, Bazmandegan G, Zakeri M, Sedri N. 2023. Relationship Between Health Literacy, Quality of Life, and Treatment Adherence in Patients with Acute Coronary Syndrome. *Health Literacy Research and Practice*. 7(2):e71-9.
- Zhou Y, Huo Q, Du S, Shi X, Shi Q, Cui S, et al. 2022 Social Support and Self-Efficacy as Mediating Factors Affecting the Association Between Depression and Medication Adherence in Older Patients with Coronary Heart Disease: A Multiple Mediator Model with a Cross-Sectional Study. *Patient Prefer Adherence*. 285–95. <https://doi.org/10.2147/PPA.S337634>