International Journal for Multidisciplinary Research (IJFMR)
E-ISSN: 2582-2160 ● Website: www.ijfmr.com ● Email: editor@ijfmr.com

A Study to Assess the Illness Perception of Myocardial Infarction Patients Attending Cardiology Outpatient Department, Svims, Tirupati

Dr. M. Nagarathnam[1], Ms. K.Shaila[2]

[1]Professor, SVIMS College of Nursing, SVIMS University, Tirupati.
[2]M.Sc. Nursing II Year student (Medical Surgical Nursing- Cardio vascular and Cardio Thoracic Nursing), SVIMS College of Nursing, SVIMS University, Tirupati.

ABSTRACT:

Background: Illness perception refers to patients' beliefs and understanding about their illness, including its duration, consequences, controllability and emotional impact. These perceptions may influence coping, treatment adherence and self-management after myocardial infarction (MI).

Aim: To assess illness perception among MI patients attending the Cardiology Outpatient Department at SVIMS, Tirupati, and examine its association with selected demographic and clinical variables.

Methods: A quantitative descriptive cross-sectional study was conducted among 171 MI patients selected using non-probability convenience sampling. Data were collected using a demographic questionnaire and the Revised Illness Perception Questionnaire (IPQ-R). The tool's reported reliability was r = 0.80. Data were analysed using descriptive statistics and chi-square tests.

Results: The reported overall illness-perception score was 107.79 ± 24, indicating moderate illness perception. Of 171 participants, 53 (31.0%) had low, 90 (52.6%) moderate and 28 (16.4%) high illness perception. Emotional representation had the highest domain mean (19.03), followed by personal control (17.87) and consequences (17.40). Timeline Acute/Chronic (16.87), Treatment Control (14.65), Timeline Cyclical (12.15), and Illness Coherence (9.82). statistically significant associations between illness-perception level and age ($\chi^2 = 28.214$, $p < 0.001$), gender ($\chi^2 = 14.479$, $p = 0.001$), residence ($\chi^2 = 12.592$, $p = 0.013$), educational level ($\chi^2 = 40.083$, $p < 0.001$), occupation ($\chi^2 = 58.188$, $p < 0.001$), monthly family income ($\chi^2 = 48.640$, $p < 0.001$), duration of MI ($\chi^2 = 9.879$, $p = 0.043$), days of hospitalisation ($\chi^2 = 35.186$, $p < 0.001$), type of work ($p = 0.029$) and BMI ($\chi^2 = 25.140$, $p < 0.001$).

Conclusion: The study concluded that the majority of myocardial infarction patients had a moderate level of illness perception. Assessing illness perception can help healthcare professionals identify patients' beliefs, emotional concerns, and educational needs. Appropriate health education, counselling, and follow-up care may improve patients' understanding of myocardial infarction, encourage treatment adherence and healthy lifestyle modifications, and support better recovery outcomes.

Keywords: Myocardial infarction ; illness perception; Revised Illness Perception Questionnaire (IPQ-R), cross-sectional study

INTRODUCTION

Myocardial infarction is a major cardiovascular disorder and one of the most serious public health challenges worldwide. Myocardial infarction occurs when a coronary artery becomes partially or completely blocked, resulting in a reduction or cessation of blood flow to the myocardium. Prolonged ischemia leads to irreversible damage and necrosis of cardiac muscle tissue, impairing the heart's ability to function effectively

Illness perception has a major influence on coping behaviour, treatment adherence, lifestyle modification, and self-management. In patients with myocardial infarction, illness perception can determine whether they accept the seriousness of the condition, follow medical advice, and participate actively in secondary prevention

Nurses and other healthcare professionals play a vital role in helping patients build a more accurate understanding of their condition. By assessing illness perception, healthcare providers can identify misconceptions, deliver individualized education, and provide emotional support. Nurses play a crucial role in patient education, counselling, health promotion, and rehabilitation. therefore the present study is undertaken to assess the illness perception of myocardial infarction patients attending SVIS,OPD,Tirupati

Statement of the Problem

"A study to assess the illness perception of myocardial infarction patients attending cardiology Out Patient Department svims Tirupati."

Objectives of the Study

- To assess the illness perception of myocardial infarction patients.
- To determine the association between illness perception and selected demographic variables among myocardial infarction patients

Null Hypotheses

- **H01**: There may be no significant difference in the level of illness perception among myocardial infarction patients.
- **H02**: There may be no significant association between the level of illness perception and selected socio-demographic among myocardial infarction patients

METHODOLOGY

RESEARCH APPROACH: Quantitative research approach

RESEARCH DESIGN: Descriptive cross-sectional design.

SAMPLE: Patients who are diagnosed as myocardial infarction coming for follow up and attending cardiology Out Patient Department, SVIMS, Tirupati.

SAMPLE SIZE: n = 171

SAMPLING TECHNIQUE: non- probability convenience sampling technique

CRITERIA FOR SAMPLE SELECTION

Inclusion Criteria

- patients who are diagnosed with MI
- patients who can read and write Telugu and willing to participate in the study.

- Patients who are medically stable and able to communicate

Exclusion Criteria

- patients who are with severe comorbidities i.e. Terminal illness or severe cardiac complications.
- Patients who cannot read, write or understand Telugu.
- Patients with cognitive impairments or psychiatric illness

DEVELOPMENT AND DESCRIPTION OF THE TOOL

The tool was developed with the help of related literature from textbooks, journals, websites, discussions and guidance from experts in the field of Nursing and Cardiology Department.

The Tool Consists of Two Sections:

SECTION I: Consists of questions to collect demographic data of patients

SECTION II: Consists of standardized revised illness perception questionnaire IPQ-R by R. Moss-Morris et.al) to assess the illness perception of myocardial infarction patients.

RESULTS

Frequency and Percentage Distribution of demographic variables among Myocardial Infarction Patients

(N= 171)

S. No	Demographic Variables		Frequency (N)	Percentage (%)
1	Age	Below 50 years	66	38.60
		51-60 years	55	32.20
		60-70 years	39	22.80
		Above 70 years	11	6.40
2	Gender	Male	121	70.80
		Female	50	29.20
3	Religion	Hindu	148	86.50
		Christian	12	7.00
		Muslim	11	6.40
4	Type of family	Joint family	41	24.00
		Nuclear family	113	66.10
		Extended family	17	9.90
5	Place of residence	Rural	105	61.40
		Urban	47	27.50
		Semi Urban	19	11.10
6	Education level	No formal education	22	12.90
		Primary school	77	45.00
		Middle school	23	13.50
		High school	17	9.90
		Intermediate	23	13.50
		Graduate	3	1.80
		Profession/Honors	6	3.50

7	Marital status	Married	160	93.60
		Widow/Widowed	11	6.40
8	Occupation	Legislators/senior officials/managers	3	1.80
		Professionals	4	2.30
		Technicians and associate professionals	5	2.90
			2	1.20
		Clerks	34	19.90
		Skilled workers/shop & market sales	3	1.80
		Skilled agricultural & fishery workers	9	5.30
		Craft & related trade workers	12	7.00
		Plant/machine operators	85	49.70
		Elementary occupation	14	8.20
		Unemployed		
9	Monthly family income:	Rs 1,59,586 and above	3	1.80
			2	1.20
		Rs 79,756-1,59,585	7	4.10
		Rs 59,795-79,755	12	7.00
		Rs 39,830-59,794	44	25.70
		Rs 23,870-39,829	91	53.20
		Rs 7,989-23,869	12	7.00
		< Rs 7,988		
10	History of comorbidities	Hypertension	92	53.80
		Diabetes	62	36.30
		Stroke	11	6.40
		Others	6	3.50
11	Smoking habit	Yes	47	27.50
		No	124	72.50
12	Smoking duration	Below 10 years	37	78.70
		Above 10 years	10	21.30
13	Alcohol consumption	Yes	36	21.10
		No	135	78.90
14	Alcohol duration	Below 10 years	24	66.70
		Above 10 years	12	33.30
15	Duration of MI	<1 month	34	19.90
		1-3 months	87	50.90

		4-6 months	50	29.20
16	Treatment received	Medical management PCI CABG	91 76 4	53.20 44.40 2.30
17	Hospitalization days	3 days 4 days 5 days 7 days	62 59 44 6	36.30 34.50 25.70 3.50
18	Type of work	Heavy Moderate Sedentary	14 89 68	8.20 52.00 39.80
19	BMI	Under weight Normal weight Over weight Obesity	4 109 55 3	2.30 63.70 32.20 1.80

Among the 171 participants, the largest age group was below 50 years (66; 38.6%); 121 (70.8%) were male and 148 (86.5%) were Hindu

Frequency and percentage distribution of level of illness Perception of Myocardial Infarction Patients

Sl.No		Frequency	Percent
1	Low level perception	53	31.00
2	Moderate level perception	90	52.60
3	High level perception	28	16.40
	Total	171	100.00

More than half of the participants (52.6%) had a **moderate level of illness perception**, while 31.0% had a **low level of illness perception**. Only 16.4% of the participants had a **high level of illness perception**

Domain wise Illness Perception: Mean, Standard deviation and Mean Percentage

DOMAIN WISE ILLNESS PERCEPTION	**Mean**	**Std. Deviation**	**Mean Percentage**	**Range**	**Minimum**	**Maximum**
TIME LINE (ACUTE/CHRONIC)	16.87	4.21	56.23	17	9	26
TIMELINE CYCLICAL	12.15	3.59	60.75	16	4	20
CONSEQUENCES	17.40	3.67	58.00	21	9	30
PERSONAL CONTROL	17.87	5.34	59.57	22	7	29

TREATMENT CONTROL	14.65	4.30	58.60	18	5	23
ILLNESS COHERENCE	9.82	4.12	39.28	16	5	21
EMOTIONAL REPRESENTATION	19.03	3.93	63.43	16	11	27
OVERALL ILLNESS PERCEPTION	107.79	24.37	56.73	89	68	157

The mean scores were highest for Emotional Representation **(**19.03) followed by Personal Control (17.87), Consequences (17.40), Timeline Acute/Chronic (16.87), treatment control (14.65), Time cyclical (12.15)and Illness Coherence (9.82). The overall illness perception score was 107.79 ± 24.37, indicating a relatively moderate level of illness perception among the participants.

Association Between Selected Demographic Variables and Illness Perception Among Myocardial Infarction Patients

Socio Demographic Variables	Category	N/ %	ILLNESS PERCEPTION			Total	Chi square	df	p value
			Low level perception	Moderate level perception	High level perception				
Age	Below 50 years	N	28	36	2	66	28.214	6	0.000
		%	16.40%	21.10%	1.20%	38.60 %			
	51-60 years	N	14	32	9	55			
		%	8.20%	18.70%	5.30%	32.20 %			
	60-70 years	N	11	17	11	39			
		%	6.40%	9.90%	6.40%	22.80 %			
	above 70 years	N	0	5	6	11			
		%	0.00%	2.90%	3.50%	6.40%			
Gender	Male	N	44	65	12	121	14.479	2	0.001
		%	25.70%	38.00%	7.00%	70.80 %			
	Female	N	9	25	16	50			
		%	5.30%	14.60%	9.40%	29.20 %			
	Hindu	N	41	80	27	148	7.956	4	0.093
		%	24.00%	46.80%	15.80%	86.50 %			
	Christian	N	5	6	1	12			

Religion		%	2.90%	3.50%	0.60%	7.00%			
	Muslim	N	7	4	0	11			
		%	4.10%	2.30%	0.00%	6.40%			
Type of family	Joint family	N	16	23	2	41	6.015	4	0.198
		%	9.40%	13.50%	1.20%	24.00 %			
	Nuclear family	N	33	57	23	113			
		%	19.30%	33.30%	13.50%	66.10 %			
	Extended family	N	4	10	3	17			
		%	2.30%	5.80%	1.80%	9.90%			
Place of residence	Rural	N	33	58	14	105	12.592	4	0.013
		%	19.30%	33.90%	8.20%	61.40 %			
	Urban	N	15	18	14	47			
		%	8.80%	10.50%	8.20%	27.50 %			
	Semi urban	N	5	14	0	19			
		%	2.90%	8.20%	0.00%	11.10 %			
		N	3	12	7	22			
Educational level	No formal education	%	1.80%	7.00%	4.10%	12.90 %	40.083	12	0.000
	Primary school	N	16	47	14	77			
		%	9.40%	27.50%	8.20%	45.00 %			
	Middle school	N	5	15	3	23			
		%	2.90%	8.80%	1.80%	13.50 %			
	High school	N	10	7	0	17			
		%	5.80%	4.10%	0.00%	9.90%			
	Intermediate	N	10	9	4	23			
		%	5.80%	5.30%	2.30%	13.50 %			
	Graduate	N	3	0	0	3			
		%	1.80%	0.00%	0.00%	1.80%			
	Profession/Honors	N	6	0	0	6			
		%	3.50%	0.00%	0.00%	3.50%			
Marital status	Married	N	51	82	27	160	1.906	2	0.386
		%	29.80%	48.00%	15.80%	93.60 %			
	Widow/	N	2	8	1	11			

	Widowed	%	1.20%	4.70%	0.60%	6.40%			
Occupation	a) Legislators, senior officials and managers	N	3	0	0	3	58.188	18	0.000
		%	1.80%	0.00%	0.00%	1.80%			
	b) Professionals	N	4	0	0	4			
		%	2.30%	0.00%	0.00%	2.30%			
	c) Technicians and associate professionals	N	5	0	0	5			
		%	2.90%	0.00%	0.00%	2.90%			
	d) Clerks	N	1	1	0	2			
		%	0.60%	0.60%	0.00%	1.20%			
	e) Skilled workers and shop and market sales workers	N	16	13	5	34			
		%	9.40%	7.60%	2.90%	19.90%			
	f) Skilled agricultural and fishery workers	N	2	0	1	3			
		%	1.20%	0.00%	0.60%	1.80%			
	g) Craft and related trade workers	N	2	7	0	9			
		%	1.20%	4.10%	0.00%	5.30%			
	h) Plant and machine operators and assemblers	N	7	4	1	12			
		%	4.10%	2.30%	0.60%	7.00%			
	i) Elementary occupation	N	13	55	17	85			
		%	7.60%	32.20%	9.90%	49.70%			
	j) Unemployed	N	0	10	4	14			
		%	0.00%	5.80%	2.30%	8.20%			
Monthly family income in Rs	Rs 1,59,586 and above	N	3	0	0	3	48.640	12	0.000
		%	1.80%	0.00%	0.00%	1.80%			

	Rs 79,756 - 1,59,585	N	2	0	0	2			
		%	1.20%	0.00%	0.00%	1.20%			
	Rs 59,795-79,755	N	7	0	0	7			
		%	4.10%	0.00%	0.00%	4.10%			
	Rs 39,830-59,794	N	6	3	3	12			
		%	3.50%	1.80%	1.80%	7.00%			
	Rs 23,870-39,829	N	16	24	4	44			
		%	9.40%	14.00%	2.30%	25.70 %			
	Rs 7989-23,869	N	18	58	15	91			
		%	10.50%	33.90%	8.80%	53.20 %			
	< Rs 7988	N	1	5	6	12			
		%	0.60%	2.90%	3.50%	7.00%			
Any history of comorbidities	Hypertension	N	34	41	17	92	7.547	6	0.273
		%	19.90%	24.00%	9.90%	53.80 %			
	Diabetes	N	15	40	7	62			
		%	8.80%	23.40%	4.10%	36.30 %			
	Stroke	N	3	6	2	11			
		%	1.80%	3.50%	1.20%	6.40%			
	Others	N	1	3	2	6			
		%	0.60%	1.80%	1.20%	3.50%			
Habits of smoking	Yes	N	18	22	7	47	1.620	2	0.445
		%	10.50%	12.90%	4.10%	27.50 %			
	No	N	35	68	21	124			
		%	20.50%	39.80%	12.30%	72.50 %			
If yes since how many years/months	Below 10 years	N	13	17	7	37	2.374	2	0.305
		%	27.70%	36.20%	14.90%	78.70 %			
	Above 10 years	N	5	5	0	10			
		%	10.60%	10.60%	0.00%	21.30 %			
Habits of alcohol consumption	Yes	N	11	21	4	36	1.056	2	0.590
		%	6.40%	12.30%	2.30%	21.10 %			
	No	N	42	69	24	135			
		%	24.60%	40.40%	14.00%	78.90 %			

If yes since how many years / months	Below 10 years	N	7	13	4	24	2.260	2	0.323
		%	19.40%	36.10%	11.10%	66.70%			
	Above 10 years	N	4	8	0	12			
		%	11.10%	22.20%	0.00%	33.30%			
Duration of MI occurred	< 1 month	N	10	19	5	34	9.879	4	0.043
		%	5.80%	11.10%	2.90%	19.90%			
	1-3 months	N	21	46	20	87			
		%	12.30%	26.90%	11.70%	50.90%			
	4-6 months	N	22	25	3	50			
		%	12.90%	14.60%	1.80%	29.20%			
Treatment received in Hospitalization	Medical management	N	25	44	22	91	9.211	4	0.056
		%	14.60%	25.70%	12.90%	53.20%			
	PCI	N	27	43	6	76			
		%	15.80%	25.10%	3.50%	44.40%			
	CABG	N	1	3	0	4			
		%	0.60%	1.80%	0.00%	2.30%			
Number of days of hospitalization	3 days	N	6	42	14	62	35.186	6	0.000
		%	3.50%	24.60%	8.20%	36.30%			
	4 days	N	27	18	14	59			
		%	15.80%	10.50%	8.20%	34.50%			
	5 days	N	17	27	0	44			
		%	9.90%	15.80%	0.00%	25.70%			
	7 Days	N	3	3	0	6			
		%	1.80%	1.80%	0.00%	3.50%			
Type of work	Heavy	N	6	3	5	14	Total	4	0.029
		%	3.50%	1.80%	2.90%	8.20%			
	Moderate	N	32	44	13	89			
		%	18.70%	25.70%	7.60%	52.00%			
	Sedentary	N	15	43	10	68			
		%	8.80%	25.10%	5.80%	39.80			

						%			
Level of BMI	Under weight	N	3	1	0	4	25.140	6	0.000
		%	1.80%	0.60%	0.00%	2.30%			
	Normal weight	N	40	54	15	109			
		%	23.40%	31.60%	8.80%	63.70 %			
	Over weight	N	10	35	10	55			
		%	5.80%	20.50%	5.80%	32.20 %			
	Obesity	N	0	0	3	3			
		%	0.00%	0.00%	1.80%	1.80%			

Note: ** = Significant at 0.01 level
* = Significant at 0.05 level NS = Not Significant

Chi-square analysis revealed statistically significant associations between age (χ^2=28.214, df=6, p<0.001), gender (χ^2=14.479, df=2, p=0.001), place of residence (χ^2=12.592, df=4, p=0.013), educational level (χ^2=40.083, df=12, p<0.001), occupation (χ^2=58.188, df=18, p<0.001), monthly family income (χ^2=48.640, df=12, p<0.001), duration of myocardial infarction (χ^2=9.879, df=4, p=0.043), number of days of hospitalization (χ^2=35.186, df=6, p<0.001), type of work (p=0.029), and level of BMI (χ^2=25.140, df=6, p<0.001) with the level of illness perception (p<0.05).

CONCLUSION

The study findings revealed that there is a significant difference in level of illness perception and majority had moderate level of illness perception (52.6%) also there is a significant association between selected demographic variables like age, gender, area of residence, educational levels, occupation, monthly family income, duration of mi, no, of, days of hospitalization, type of work, level of BMI with level of illness perception among myocardial infarction patients, implementing appropriate educational and counselling interventions to improve their understanding of the disease, treatment adherence, and recovery outcomes.

RECOMMENDATIONS

- Similar studies may be conducted with a larger sample size to enhance the generalizability of the findings.
- The study may be replicated in different healthcare settings such as tertiary care hospitals, community health centres, and private hospitals.
- Conduct comparative studies based on demographic and clinical variables
- Longitudinal studies are recommended to assess changes in illness perception over time and during different phases of recovery.
- Interventional studies may be conducted to evaluate the effectiveness of structured educational programmes, counselling sessions, and cardiac rehabilitation on improving illness perception.
- Qualitative research studies may be conducted to gain an in-depth understanding of patients' pereptions, beliefs, and experiences related to myocardial infarction

REFERENCES

1. World Health Organization. Cardiovascular diseases (CVDs) [Internet]. Geneva: WHO; 2025 [cited 2026 Aug 26].Available from: https://www.who.int/news-room/fact-sheets/detail/cardiovascular-diseases-(cvds) (World Health Organization)
2. World Health Organization. Cardiovascular diseases [Internet]. Geneva: WHO; 2025 [cited 2026 Aug 26]. Available from: https://www.who.int/health-topics/cardiovascular-diseases/ (World Health Organization)
3. World Health Organization India. Cardiovascular diseases in India [Internet]. New Delhi: WHO India; [cited 2026 Aug 26].Available from: https://www.who.int/india/health-topics/cardiovascular-diseases (World Health Organization)
4. Broadbent E, Petrie KJ, Main J, Weinman J. The brief illness perception questionnaire. J Psychosom Res. 2006;60(6):631-7. Available from:https://pubmed.ncbi.nlm.nih.gov/16731240/ (PubMed)
5. Alsén P, Brink E, Persson LO, Brändström Y, Karlson BW. Illness perceptions after myocardial infarction and their relation to fatigue, emotional distress and health-related quality of life. Eur J Cardiovasc Nurs. 2010;9(2):85-93. Available from: https://pubmed.ncbi.nlm.nih.gov/20171885/
6. American Heart Association. Secondary prevention and risk reduction therapy after myocardial infarction [Internet]. Dallas (TX): AHA; [cited 2026 Aug 26]. Available from: https://www.heart.org
7. Basu S, Poole J. The Brief Illness Perception Questionnaire. Occup Med (Lond). 2016;66(5):419-20.Available from: https://pubmed.ncbi.nlm.nih.gov/27317335/ (PubMed)
8. Broadbent E, Wilkes C, Koschwanez H, Weinman J, Norton S, Petrie KJ. A systematic review and meta-analysis of the Brief Illness Perception Questionnaire. Available from: https://pmc.ncbi.nlm.nih.gov/articles/PMC4913361/ (PubMed Central (PMC))
9. World Health Organization. Noncommunicable diseases [Internet]. Geneva: WHO; 2025 [cited 2026 Aug 26]. Available from: https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases (World Health Organization)
10. World Health Organization. Cardiovascular diseases (CVDs) [Internet]. Geneva: WHO; 2025 [cited 2026 Aug 26]. Available from: https://www.who.int/news-room/fact-sheets/detail/cardiovascular-diseases-(cvds) (World Health Organization)
11. Stafford L, Berk M, Jackson HJ. Are illness perceptions about coronary artery disease predictive of depression and anxiety? Psychosomatics. 2009;50(6):557-63. Available from: https://pubmed.ncbi.nlm.nih.gov/19996229/
12. French DP, Lewin RJ, Watson N, Thompson DR. Do illness perceptions predict attendance at cardiac rehabilitation and quality of life following myocardial infarction? J Psychosom Res. 2005;59(5):315-22. Available from: https://pubmed.ncbi.nlm.nih.gov/16253620/
13. Petrie KJ, Weinman J. Patients' perceptions of their illness: the dynamo of volition in health care. Curr Dir Psychol Sci. 2012;21(1):60-5. Available from: https://journals.sagepub.com/doi/10.1177/0963721411429456
14. Gebrekidan, Desalegn & Hyder, Akmal. (2021). Research methods. 101108/978-1-80043-744-920210010 https://guides.library.cornell.edu/bio
15. Pare G, Kistiou S. Chapter 9 methods for Literature Reviews. In: Lau F, kuziemsky C, editors. Handbook of Health Evaluation: An evidence- based Approach [Internet]. Victoria (BC): University of Victoria; 2017 Feb 27. Available from: https://www.ncbi.nlm.nih.giv/books/NBK481583.
16. Koh HP, John M. Illness perception and quality of life among patients with acute myocardial

infarction. 2025.
17. Radha RK, Agnibhoj P, Girini. Knowledge, attitude and perception regarding myocardial infarction and lifestyle behaviour among myocardial infarction patients. 2025.
18. Wang Y, Yan J. Relationship between illness perception, psychological flexibility and fear of recurrence among patients with myocardial infarction. 2025.
19. Jagan N, Nagarajah V. Illness perception, cardiovascular disease risk factor knowledge, medication knowledge and medication adherence among post-myocardial infarction patients completing phase II cardiac rehabilitation. 2025.
20. Koh HP, Tang JY, Jagan N, Khong YS, Nagarajah JR, Lim KSC, et al. Illness perception, cardiovascular disease risk factors knowledge, medication knowledge, and adherence among post-myocardial infarction patients who completed phase 2 intensive cardiac rehabilitation program. J Pharm Pract Res. 2025;55(3):224-233. doi:10.1002/jppr.1971.
21. McCallum CJ, et al. Illness perceptions in acute myocardial infarction patients treated with percutaneous coronary intervention during cardiac rehabilitation. 2023.
22. Dashami, Premila lee Illness perception and readiness to change among post-myocardial infarction patients at Christian Medical College, Vellore. 2023.
23. Ozkan S, cardiyol T. Illness perception and quality of life among patients with acute myocardial infarction. 2022.
24. Sharma A, Dutta B. Illness perception among patients with myocardial infarction in tertiary care hospitals of Kolkata. 2022.
25. Grauman Å, Viberg Johansson J, Falahee M, Veldwijk J. Public perceptions of myocardial infarction: Do illness perceptions predict preferences for health check results? BMC Public Health. 2022;22:256. Available from: https://pmc.ncbi.nlm.nih.gov/articles/PMC8802064/
26. Thagizadeh A, Ghahramanian A, Vahid. Illness perception and cardiovascular risk factors among myocardial infarction patients undergoing percutaneous coronary intervention. 2022.
27. Ashour A, Al-Smadi A, Shajrawi A, et al. Changes in illness perception among patients after percutaneous coronary intervention. Eur J Cardiovasc Nurs. 2020;19(7):593-601. Available from: https://pubmed.ncbi.nlm.nih.gov/
28. Petrie KJ, Cameron LD, Ellis CJ, et al. Changing illness perceptions after myocardial infarction: effects of a brief hospital-based intervention. 2020.
29. Chakraborty S, Adithya S. Illness perceptions among patients four months after myocardial infarction: a qualitative study. 2020.
30. Granqvist G, et al. Illness perceptions of myocardial infarction among nursing students and changes during nursing education. Nurs Educ Perspect. 2017.
31. Sararoudi RB, Malekian M. Effect of an illness perception-focused intervention on quality of life, anxiety and depression among myocardial infarction patients: a randomized controlled trial. 2016.
32. Ashour A, Fitzsimons D. Illness perception and related factors among patients with acute myocardial infarction after percutaneous coronary intervention. 2016.
33. Bekke-Hansen S, Weinman J, Thastum M, Thygesen K, Zachariae R. Psycho-social factors are important for the perception of disease in patients with acute coronary disease. Dan Med J. 2014 Aug;61(8):A4885. pubmed.ncbi.nlm.nih.gov +1
34. Alsen P, Brink E. Illness perception and its association with health-related quality of life, fatigue and emotional distress among myocardial infarction patients. 2014.

35. Yan Y, Zhou Y, Chen J, et al. Illness perception and predictors among Chinese patients with myocardial infarction. J Clin Nurs. 2011;20(11-12):1567-1575. Available from: https://pubmed.ncbi.nlm.nih.gov/
36. Reges O, Vilchinsky N, Leibowitz M. Illness attribution among patients with acute myocardial infarction: long-term changes in perceptions of disease causation 2011.
37. Grankvist G, Brink E. Illness perception of nursing students regarding myocardial infarction. Nurs Educ Perspect. 2009;30(4):234-238. doi:10.1043/1536-5026-030.004.0234
38. Marilyn E Parker. Textbook of Nursing theories and Nursing Practice, 2nd edition, Philadelphia: Jaypee Brother Publishers 94-96.
39. MC Ewen, Wills. Textbook for theoretical Basis for Nursing, 3rd edition, Lippincott William and Wilkins Publications 2011; 42-45