



# A Study to assess the Effectiveness of Planned Teaching Programme on Knowledge Regarding prevention of Myocardial Infarction among people residing in selected area, Puducherry.

Vigneshwari G,

Lecturer Cum Ph.D Scholar (BIHER),

Medical Surgical Nursing,

Sri Lakshmi Narayana College of Nursing, Puducherry.

## ABSTRACT

**BACKGROUND:** Myocardial Infarction is one of the life threatening coronary events of coronary artery disease. Myocardial infarction, commonly known as a heart disease. This usually results from an imbalance in oxygen supply and attack is the irreversible necrosis of the Heart muscle secondary to prolonged Ischemia demand of the myocardium. Myocardial infarction is a serious result of coronary artery diseases. Globally, Cardiovascular diseases (CVDs) are the leading cause of death and taking an estimated 17.9 million lives each year. This study aimed to assess knowledge towards Myocardial Infarction among People residing in Koodapakkam. **Methodology:** In this study, a Quantitative approach and Pre experimental, one group pretest-post-test research design was used. 30 samples were selected by using Convenience sampling technique who fulfilled the inclusion criteria and data were collected using Self Structured Knowledge Questionnaires. **Results:** The Study revealed that the overall score was 65% of residing people in Koodapakkam. They had 4 (7.02%) below average knowledge, 32 (56.14%) had Average Knowledge, 17 (29.82) Good Knowledge, 4 (7.02%) had Excellent Knowledge. \* $p < 0.05$  significant, \*\*  $p < 0.01$  & \*\*\* $p < 0.001$  Highly significant. **Conclusion:** The study concluded that majority of the peoples had adequate knowledge regarding Myocardial Infarction and innovative measures to create awareness will further improve the knowledge of the people.

**key words:** Cardiovascular diseases, Myocardial Infarction, Heart, Knowledge.

## INTRODUCTION

Cardiovascular diseases (CVDs) are the leading cause of death globally, taking an estimated 17.9 million lives each year. CVDs are a group of disorders of the heart and blood vessels and include coronary heart disease, cerebrovascular disease, rheumatic heart disease and other conditions. More than four out of five CVD deaths are due to heart attacks and strokes, and one third of these deaths occur prematurely in people under 70 years of age. The term cardiovascular disease, or simply 'CVD' refers to a set of ailments that affect the heart and blood arteries and can cause a number of issues that can have an impact on a person's general health and wellbeing.

The most important behavioral risk factors of heart disease and stroke are unhealthy diet, physical inactivity, tobacco use and harmful use of alcohol. The effects of behavioural risk factors may show up in individuals as raised blood pressure, raised blood glucose, raised blood lipids, and overweight and obesity. These "intermediate risks factors" can be measured in primary care facilities and indicate an increased risk of heart attack, stroke, heart failure and other complications.

In 2013, WHO Member States agreed on global mechanisms to reduce the avoidable NCD burden including a "Global action plan for the prevention and control of NCDs 2013- 2020". This Plan aims to reduce the number of premature deaths from NCDs by 25% by 2025 through nine voluntary global targets. Two of the targets directly focus on preventing and controlling CVDs.

### **STATEMENT OF THE PROBLEM:**

A Study to assess the Effectiveness of Planned Teaching Programme on Knowledge Regarding prevention of Myocardial Infarction among people residing in selected area, Puducherry.

### **OBJECTIVES OF THE STUDY:**

- To assess the Pret est knowledge regarding Prevention of Myocardial infarction among people residing at selected area, Puducherry.
- To evaluate the effectiveness of planned teaching programme regarding prevention of myocardial infarction among people residing at selected area, Puducherry.
- To find out the association between pre-test level of knowledge with their selected demographic variables

### **ASSUMPTIONS:**

- The people may have extent of impaired knowledge.
- Planned teaching Programme may help the people which improves the level of Knowledge.

### **HYPOTHESIS:**

**H<sub>1</sub>:** -There will be significant difference between pretest and posttest knowledge score regarding prevention of Myocardial Infarction among people.

**H<sub>2</sub>:** -There will be significant association between the knowledge score regarding prevention of myocardial infarction with the selected socio-demographic variables.

### **DELIMITATIONS:**

The study is delimited to

- 1 week of study duration.
- Sample 30 people's

### **RESEARCH APPROACH**

A Quantitative research approach has adopted for this present study

## RESEARCH DESIGN

The Pre experimental, One group pre test- post test design has chosen for this present study.

### SETTING OF THE STUDY

The study was conducted at Primary Health Centre at Koodapakkam, Puducherry. 'The primary health center which is located 2kms away from Sri Lakshmi Narayana college of nursing. The primary health center provides the consultation and care towards the people residing in koodapakkam area, Puducherry.

### POPULATION

The population of the study has comprised of residing people in Koodapakkam.

### SAMPLE

This study has conducted on residing people those who are fulfilling the inclusion criteria.

### SAMPLE SIZE

The sample size consists of 30 residing people in koodapakkam

### SAMPLING TECHNIQUE

Non-Probability, Purposive sampling technique has adopted for this present study.

### CRITERIA FOR SAMPLE SELECTION:

#### INCLUSION CRITERIA: -

- Adult groups who were willing to participate.
- Adult groups who were present at the time of data collection.

#### EXCLUSION CRITERIA

- Adult groups who were not willing to participate in study.
- Adult groups who were suffered from chronic illness.

### VARIABLES:

- **Independent variables:** Planned teaching Programme.
- **Dependent variables:** Improve the Knowledge among people.

### SCORING INTERPRETATION:

SCORE	INTERPRETATION
0-6	Inadequate Knowledge
7-12	Moderate Knowledge
13-20	Adequate Knowledge

## DATA ANALYSIS AND INTERPRETATION

The statistical methods used for the analysis of data are the numbers, percentage, mean, standard deviation.

**SECTION A:** Distribution of demographic characteristics of residing peoples.

**SECTION B:** Distribution to assess the effectiveness of planned teaching programme regarding prevention of myocardial infarction among residing people in koodapakkam area, puducherry.

**Table 1: Frequency and percentage wise distribution to assess the effectiveness of planned teaching programme on knowledge regarding prevention of myocardial infarction among people residing in selected area, Puducherry according to their demographic variables.**

(n= 30)

Demographic variables	Frequency	Percentage
1. Age in years:		
a) 21-35 years	9	30
b) 35-45 years	5	16.7
c) 45-55 years	9	30
d) > 55 years	7	23.3
2. Gender:		
a) Male	15	50
b) Female	15	50
3. Educational qualification:		
a) Elementary education	6	20
b) secondary education	12	40
c) Higher education	10	33.3
d) Illiteracy	2	6.7
4. Profession:		
a) Light laborer	6	0
b) Moderate worker	14	46.7
c) Hard worker	10	33.3
5. Marital status:		
a) Married	29	96.7
b) Unmarried	1	3.3
6. Individual custom		
a) Smoking	4	13.3
b) Using tobacco and having betel nut habit	1	3.3
c) Drinking alcohol	4	13.3
d) None of these	21	70
7. Body weight:		
a) 35-45 kg	5	16.7
b) 46-55 kg	14	46.7
c) 56-70 kg	5	16.7
d) >70 kg	6	20
8. Family types		
a) Joint family	17	56.7
b) Single family	13	43.3



9. Diet:		
a) Non vegetarian	26	86.7
b) Vegetarian	4	13.3
10. Previous information:		
a) Media b)Relatives c)Friends	5	16.7
d)Health Workers	5	16.7
	11	36.7
	9	30

**Table 1-** Reports that, 9(30%) of people in age group of 21-35 years, 5(16.7%) People were in 35-45 years, 9(30%) people were in age group of 45-55 years, 7(23.3) people were in age group of >55 years Regarding the gender 15(50%) of the people were Male and 15(50%) of the people were female.

In a view of educational qualification of the people, 6(20%) were in elementary education, 12(40%) of the people were in secondary education, 10(33.3%) of the people were higher education, 2(6.7%) of the people were illiteracy.

In the level of profession of the people, 6(20%) were in the Light Labour, 14(16.7%) of the people were in a moderate worker, 10(33.3%) of the people were in hard worker. In the types of Marital status, 29(96.5%) were in married and 1(3.3%) were in unmarried.

In the individual custom 4(13.3%) were in smoking 1(3.3%) were in using Tobacco and having betel nut habit, 4(13.3%) were in drinking Alcohol and 21(70%) were in none of there, regarding the body weight 5(16.7%) were in 35-45 kg 14(46.7%) were in 46-55 kg, 5(16.7%) were in 56-70 kg, 6(20%) were in >70kg.

In the family types 17(56.7%) were in joint family and 13(43.3%) were in single family.

Regarding the diet 26(86.7%) were in non-vegetarian, 4(13.3%) were in 4(13.3%). In the view of previous information 5(16.7%) were in Media, 5(16.7%) were in relatives, 11(36.7%) were in friends and 9(30%) were in health workers.

**Table-2:** Overall wise Mean, SD and mean% to assess the pre test knowledge regarding prevention of myocardial infraction among people residing in selected area, Puducherry.

level of knowledge	Pre Score			
	Max score	Mean	SD	Mean%
Overall	20	10.1	3.29	50.5

**Table 2-**Represents that, the Pretest Score mean Level is 10.1 and its Standard deviation is 3.29.

**Table-3:** Overall wise Mean, SD and mean% to assess the post test knowledge regarding prevention of myocardial infraction among people residing in selected area, Puducherry.

level of knowledge	Post Score			
	Max score	Mean	SD	Mean%
Overall	20	15.33	2.52	76.7

**Table 3-**Represents that, the Post test Score mean Level is 15.33 and its Standard Deviation is 2.52.

**Table-4:** Area wise Mean, SD and Mean% between pre test and post test to assess the effectiveness of planned teaching programme on knowledge regarding prevention of myocardial infraction among people residing in selected area, Puducherry.

Level of Knowledge	Pre Score			Post test			Difference in mean%
	Mean	SD	Mean%	Mean	SD	Mean%	
Overall	10.1	3.29	50.5	15.33	2.52	76.7	26.2

**Table 4-** Represents that the Pre test Mean level is 10.1 and its Standard Deviation is 3.29 and Post test Mean level is 15.33 and its Standard Deviation level is 2.52.

**Table-5:** Frequency and percentage wise distribution between pre test and post test to assess the effectiveness of planned teaching programme on knowledge regarding prevention of myocardial infraction among people residing in selected area, Puducherry.

Level of knowledge	Pre test score		Post test score	
	f	%	f	%
Inadequate Knowledge	10	33.3	0	0
Moderate Knowledge	18	60	14	46.7
Adequate Knowledge	2	6.7	16	53.3
Overall	30	100	30	100

**Table 5-** Represents the level of knowledge in Pre test 10(33.3%) had inadequate knowledge 18(60%) had Moderate knowledge and 2(6.7%) had Adequate knowledge In case of Post test of knowledge 0(0%) had Inadequate knowledge 14(46.7%) had Moderate knowledge and 16(53.3%) had Adequate knowledge.

**Table-6:** Paired ‘t’ test between pre and post test to assess the effectiveness of planned teaching programme on knowledge regarding prevention of myocardial infraction among people residing in selected area, Puducherry.

Level of knowledge	Pre Score			Post test			Difference in ‘t’ test mean		p-value
	Mean	SD	Mean%	Mean	SD	Mean%			
Overall	10.1	3.29	50.5	15.33	2.52	76.7	5.23	10.02	P<0.001*** HS

**Table- 6-** Represents the Paired ‘t’ test overall value is 10.02 which is statistically Highly Significant at the level of  $P < 0.001$  Hs.

**Table 7:** Association for level of knowledge in pre test and selected demographic data.

Demographic variables	Inadequate		Moderate		Adequate		$\chi^2$ - value	p-value
	f	%	f	%	f	%		
1.Age in years:								
a) 21-35 years	5	16.7	4	13.3	0	0	4.56 (df=6)	0.601 NS
b)35-45 years	1	3.3	4	13.3	0	0		
c)45-55 years	2	6.7	6	20	1	3.3		
d)> 55 years	2	6.7	4	13.3	1	3.3		
2.Gender:								
a)Male	4	13.3	10	33.3	1	3.3	0.62 (df=2)	0.733 NS
b)Female	6	20	8	26.7	1	3.3		
3. Educational qualification:								
a) Elementary education	0	0	5	16.7	1	3.3	6.37 (df=6)	0.383 NS
b)secondary education	6	20	5	16.7	1	3.3		
c)Higher education	3	10	7	23.3	0	0		
d)Illiteracy	1	3.3	1	3.3	0	0		
4.Profession:								
a)Light laborer	3	10	2	6.7	1	3.3	4.02 (df=4)	0.403 NS
b)A moderate worker	5	16.7	8	26.7	1	3.3		
c)Hard worker	2	6.7	8	26.7	0	0		
5.Marital status:								
a)Married	10	33.3	17	56.7	2	6.7	0.687 (df=2)	0.708 NS
b)Unmarried	0	0	1	3.3	0	0		
6. Individual custom								
a)Smoking	2	6.7	2	6.7	0	0	4.91 (df=6)	0.555 NS
b)Using tobacco and having betel nut habit	0	0	1	3.3	0	0		
c)Drinking alcohol	2	6.7	1	3.3	1	3.3		
d)None of these	6	20	14	46.7	1	3.3		
8. Family types								
a)Joint family	6	20	10	33.3	1	3.3	0.09 (df=2)	0.956 NS
b)Single family	4	13.3	8	26.7	1	3.3		
9.Diet:								
a)Non vegetarian	9	30	16	53.3	1	3.3	2.50 (df=2)	0.287 NS
b)vegetarian	1	3.3	2	6.7	1	3.3		

10. Previous information:							
a) Media b)Relatives	0	0	4	13.3	1	3.3	9.72
c)Friends	1	3.3	4	13.3	0	0	(df=6)
d)Health workers	7	23.3	4	13.3	0	0	
	2	6.7	6	20	1	3.3	

\* $p < 0.05$  significant, \*\*  $p < 0.01$  & \*\*\* $p < 0.001$  Highly significant

**Table 7-**Shows the Association for level of knowledge in pre test and selected demographic data. Comparing the age of the residing people, there was no significant association between the age group regarding knowledge

With respect to the gender of the residing people, there was no significant association ( $p > 0.05$ ).

Regarding educational qualification, there was no significant association observed between the various religious.

With regard to profession, there was no significant association with the level of knowledge. Regarding marital status, there was no significant association between with the knowledge.

Considering individual custom, there was no significant association with the knowledge. Regarding body weight, there was statistically significant association ( $p < 0.05$ ) with the knowledge was observed. Regarding the family types, there was no significant association. Considering diet, there was no significant association with the knowledge.

Regarding previous information, there was no significant association with the knowledge.

## SUMMARY AND CONCLUSION

Myocardial Infarction is the process by which area of myocardial cells in the heart are permanently destroy and death due to sudden loss of blood supply. Despite advances in therapy, MI remains the leading cause of death in United States. Myocardial Infarction results from myocardial ischemia and cell death, most often because of an intra-arterial thrombus superimposed on an ulcerated or unstable atherosclerotic plaque.

The present study was done to A Study to assess the effectiveness of planned teaching programme on knowledge regarding prevention of Myocardial Infarction among people residing at koodapakkam, Puducherry.

## FINDING OF THE STUDY:

The level of knowledge in Pre test as 10(33.3%) sample of residing people comes under inadequate knowledge and 18(60%) sample of residing people come under moderate knowledge and 2(67%) sample of residing people comes under adequate knowledge and Standard Deviation value of Pre test mean level is 10.1% and its Standard Deviation is 3.29% and Post test mean level is 15.33% and its Standard deviation is 2.52%. The Paired 't' test overall value is 10.02% which is statistically Highly Significant at the level of  $P < 0.001$ .

The Post test level of Knowledge shows that 0(0%) were in Inadequate knowledge and 14(46.7%) were in moderate knowledge and 16(53.3%) were in adequate knowledge.

Reveals the Association between the selected demographic variables with Pre test level of knowledge among residing people. Residing is significance to the values of  $P < 0.05$ .

## CONCLUSION

The study concluded that majority of the residing peoples had adequate knowledge regarding prevention of myocardial infarction. The study suggested that continued educational programmes and regular awareness



programmes must be conducted to sustain and improve the knowledge and further to control the myocardial infarction in the present and future.

## RECOMMENDATIONS:

1. The study will be conducted in large samples
2. Similar kind of study can be done in various settings like those who are attending OPD in Primary Health Centers.
3. Study can be conducted by using different teaching modules regarding immediate management of myocardial infarction.
4. Similar kind of study can be done to assess the knowledge level of nursing student regarding Myocardial Infarction.

## REFERENCE:

### JOURNAL REFERENCE:

1. Alemi, F., Rice, J., and Hankins, R. Predicting In-Hospital Mortality of Myocardial Infarctions. In Press.
2. Benfante, R. and Reed, D. Is Elevated Serum Cholesterol Level a Risk Factor for Coronary Heart Disease in the Elderly? Journal of the American Medical Association 263:393–396, 1990. [PubMed]
3. Califf, R.M. The Evolution of Medical and Surgical Therapy for Coronary Artery Disease. Journal of the American Medical Association 261:2077–2086, 1989. [PubMed]
4. Gersh, B.J., Kronmal, R.A., Frye, R.L., et al. Coronary Arteriography and Coronary Bypass Surgery: Morbidity and Mortality in Patients Age 65 Years or Older: A Report from the Coronary Artery Surgery Study. Circulation 67:483–491, 1983. [PubMed]
5. Hlatky, M.A. Trends in Physician Management of Uncomplicated Acute Myocardial Infarction, 1970–1987 . American Journal of Cardiology 61:515–518, 1988. [PubMed]
6. Iezzoni, L.I., Burnside, S., Sickles, L., et al. Coding of Acute Myocardial Infarction. Annals of Internal Medicine 109:745–751, 1988. [PubMed]
7. Lee, T.H. and Goldman, L. The Coronary Care Unit Turns 25: Historical Trends and Future Directions. Annals of Internal Medicine 108:887–894, 1988. [PubMed]
8. Holmes, D.R. and Vlietstra, R.E. Balloon Angioplasty in Acute and Chronic Coronary Artery Disease. Journal of the American Medical Association 261:2109–2114, 1987. [PubMed]
9. Kent, K.H. Coronary Angioplasty. A Decade of Experience. New England Journal of Medicine 316:1148–1149, 1989. [PubMed]
10. Moss, A.J. and Benhorin, J. Prognosis and Management After a First Myocardial Infarction. New

England Journal of Medicine 322:743–753, 1990. [PubMed]

11. cNutt, R.A. and Selker, H.P. How Did the Acute Ischemic Heart Disease Predictive Instrument Reduce Unnecessary Coronary Care Unit Admission? *Medical Decision Making* 8:90–94, 1988. [PubMed]
12. Pozen, M.W. A Predictive Instrument to Improve Coronary Care Unit Admission in Acute Ischemic Heart Disease: A Prospective Multicenter Clinical Trial. *New England Journal of Medicine* 310:1273–1278, 1984. [PubMed]
13. Skarkey, S.W., Burnette, D.D., Ruiz, E., et al. An Analysis of Time Delays Preceding Thrombolysis for Acute Myocardial Infarction. *Journal of the American Medical Association* 263:3171–3174, 1989. [PubMed]
14. Selker, H.P., D'Agostino, R.B., and Laks, M.M. A Predictive Instrument for Acute Ischemic Heart Disease to Improve Coronary Care Unit Admission Practices: A Potential On- Line Tool in a Computerized Electrocardiograph. *Journal of Electrocardiology Supplemental Issue* S11–S17, 1988. [PubMed]
15. Selker, H.P., Griffith, J.L., Dorey, F.J., et al. How Do Physicians Adapt When the Coronary Care Unit is Full? A Prospective Multicenter Study. *Journal of the American Medical Association* 257:1181–1185, 1987. [PubMed]
16. The TIMI Research Group. Comparison of Invasive and Conservative Strategies After Treatment With Intravenous Tissue Plasminogen Activator in Acute Myocardial Infarction - Results of the Thrombolysis in Myocardial Infarction (TIMI) Phase II Trial. *New England Journal of Medicine* 320:618–627, 1989. [PubMed]
17. The TIMI Research Group. Immediate vs Delayed Catheterization and Angioplasty Following Thrombolytic Therapy for Acute Myocardial Infarction - TIMI II Results. *Journal of the American Medical Association* 260:2849–2858, 1988. [PubMed]
18. Topol, E.J. Coronary Angioplasty for Acute Myocardial Infarction. *Annals of Internal Medicine* 109:970–980, 1988. [PubMed]
19. Weaver, W.D., Eisenberg, M.S., Martin, J. S., et al. Myocardial Infarction Triage and Intervention Project - Phase I: Patient Characteristics and Feasibility of Prehospital Initiation of Thrombolytic Therapy. *Journal of the American College of Cardiology* 15:925–931, 1990. [PubMed]
20. White, H.D. Effects of Intravenous Streptokinase as Compared With That of Tissue Plasminogen Activator of Left Ventricular Function After First Myocardial Infarction. *New England Journal of Medicine* 320:817–821, 1989. [PubMed]
21. Alemi, F., Rice, J., and Hankins, R. Predicting In-Hospital Mortality of Myocardial Infarctions. In Press.
22. Benfante, R. and Reed, D. Is Elevated Serum Cholesterol Level a Risk Factor for Coronary Heart Disease in the Elderly? *Journal of the American Medical Association* 263:393–396, 1990. [PubMed]

23. Califf, R.M. The Evolution of Medical and Surgical Therapy for Coronary Artery Disease. *Journal of the American Medical Association* 261:2077–2086, 1989. [PubMed]
24. Gersh, B.J., Kronmal, R.A., Frye, R.L., et al. Coronary Arteriography and Coronary Bypass Surgery: Morbidity and Mortality in Patients Age 65 Years or Older: A Report from the Coronary Artery Surgery Study. *Circulation* 67:483–491, 1983. [PubMed]
25. Hlatky, M.A. Trends in Physician Management of Uncomplicated Acute Myocardial Infarction, 1970–1987. *American Journal of Cardiology* 61:515–518, 1988. [PubMed]
26. Iezzoni, L.I., Burnside, S., Sickles, L., et al. Coding of Acute Myocardial Infarction. *Annals of Internal Medicine* 109:745–751, 1988. [PubMed]
27. Lee, T.H. and Goldman, L. The Coronary Care Unit Turns 25: Historical Trends and Future Directions. *Annals of Internal Medicine* 108:887–894, 1988. [PubMed]
28. Holmes, D.R. and Vlietstra, R.E. Balloon Angioplasty in Acute and Chronic Coronary Artery Disease. *Journal of the American Medical Association* 261:2109–2114, 1987. [PubMed]
29. Kent, K.H. Coronary Angioplasty. A Decade of Experience. *New England Journal of Medicine* 316:1148–1149, 1989. [PubMed]
30. Moss, A.J. and Benhorin, J. Prognosis and Management After a First Myocardial Infarction. *New England Journal of Medicine* 322:743–753, 1990. [PubMed]
31. McNutt, R.A. and Selker, H.P. How Did the Acute Ischemic Heart Disease Predictive Instrument Reduce Unnecessary Coronary Care Unit Admission? *Medical Decision Making* 8:90–94, 1988. [PubMed]
32. Pozen, M.W. A Predictive Instrument to Improve Coronary Care Unit Admission in Acute Ischemic Heart Disease: A Prospective Multicenter Clinical Trial. *New England Journal of Medicine* 310:1273–1278, 1984. [PubMed]
33. Skarkey, S.W., Burnette, D.D., Ruiz, E., et al. An Analysis of Time Delays Preceding Thrombolysis for Acute Myocardial Infarction. *Journal of the American Medical Association* 263:3171–3174, 1989. [PubMed]
34. Selker, H.P., D'Agostino, R.B., and Laks, M.M. A Predictive Instrument for Acute Ischemic Heart Disease to Improve Coronary Care Unit Admission Practices: A Potential On- Line Tool in a Computerized Electrocardiograph. *Journal of Electrocardiology Supplemental Issue* S11–S17, 1988. [PubMed]
35. Kumar, et.al., (2023) “Epidemiological profile among young patients ( $\leq 45$  years) suffering from acute myocardial infarction in a tertiary care center in Goa.
35. Samah S. Rouzan MD, et.al., (2023) Insomnia has been closely associated with cardiovascular disease (CVD) including myocardial infarction (MI).

36. Kwon H K, et.al., (2021) “incidence and risks of myocardial infarction (MI) and stroke by cancer site and treatment modality.
37. Manson J E, et.al., 2022 “The primary prevention of myocardial infarction in the United States, coronary heart disease principally myocardial infarction.
38. Mohammed M et.al., (2020) study on “Incidence and outcome of myocardial infarction treated with percutaneous coronary intervention during COVID-19 pandemic”.
39. Johannah Cramer, et.al., 2020 “Air pollution exposure has been linked to coronary heart disease, although evidence on and myocardial infarction (MI) incidence is mixed”.
40. Dong Hyun Sinn, et.al., 2022 “Non-alcoholic fatty liver disease (NAFLD) is a multisystem disease associated with an increased risk of cardiovascular disease (CVD), diabetes, and chronic kidney disease.

