

Original Research Article

Perceived myths and misconceptions about myocardial infarction among adults in Saudi Arabia

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ABSTRACT

Background: Myocardial infarction (MI), a widespread public health issue, is causing high mortality rates in Saudi Arabia. Good awareness about MI can improve outcomes for patients, and conversely, misconceptions can lead to delay in seeking treatment and affect patients' compliance to preventive measures. Therefore, this study aims to assess the perception and beliefs of people in Saudi Arabia regarding myths about this issue.

Methods: A cross-sectional survey using an online questionnaire was done in Saudi Arabia from October to November 2024 and included adults from both genders and various age groups. The questionnaire contained 10 common myths about MI, and a myth score of 10 points was established as 1 point given for each myth the participants agreed with.

Results: The total number of participants was 951. About 74% were familiar with the term "heart attack," and 70% acquired knowledge from the internet. The average myth score was 2.13 ± 1.77 out of 10 total points. Approximately 25% of our study participants agreed with only one of the provided false statements, while less than 1% agreed with all ten.

Conclusions: Overall, the study showed that most participants had good recognition of myths about myocardial infarction. There were links between myths belief and demographic factors like age and gender, in addition to health conditions such as diabetes and hypertension. Men and people with histories of strokes had the lowest levels of awareness compared to others. Correcting misconceptions is crucial to improve outcomes for patients at risk of MI.

Keywords: Health myths, Knowledge, Myocardial infarction, Heart attack, Saudi Arabia

INTRODUCTION

A myocardial infarction (MI), sometimes referred to as a "heart attack," occurs when blood flow to a section of the

myocardium is reduced or stops entirely. A myocardial infarction can be "silent" and go unnoticed, or it can be a traumatic event that results in hemodynamic decline and unexpected death. The primary cause of death in the

United States, coronary artery disease (CAD), is the root cause of most myocardial infarctions. Patients may arrive with pressure or discomfort in the chest that radiates to the arm, shoulder, jaw, or neck. Electrocardiography (ECG) abnormalities may be linked to myocardial ischemia in addition to the history and physical examination.¹ People with high blood pressure, diabetes, high cholesterol, smokers, and obese patients should all receive special attention because they are at a higher risk of cardiovascular disease. It is crucial to modify risk factors by managing their health issues, abstaining from smoking, losing weight appropriately, and leading an active lifestyle.²

With an overall prevalence of 5.5%, cardiovascular disease (CVD) rates have increased in Saudi Arabia.³ It was estimated that 1.5% of Saudis aged 15 years old and older have CVD.⁴ In 2023, Alsaab et al published a study in Saudi Arabia on awareness of MI symptoms and risk factors. This study emphasizes the need for inclusive awareness programs, particularly for groups with low awareness, such as men and retired people.³ Additionally in 2021, Basham, Karam et al investigated the knowledge of Saudi nationals on the early warning indicators of an acute myocardial infarction. The results of this study showed that general knowledge and awareness of CAD were below optimal levels, indicating that more work needs to be done in Saudi Arabia to educate patients about CAD, especially those who are at higher risk and have less education. Further research is needed to assess the public reach and efficacy of different CAD awareness initiatives.⁵

Building on the foundational understanding of health literacy, it is crucial to explore the pervasive impact of misinformation on health outcomes, particularly in the context of cardiovascular diseases. Beasant et al highlight that misconceptions regarding medical conditions can significantly hinder patients' ability to seek timely care, implement effective preventive measures, and adhere to prescribed treatment regimens.⁶ For instance, a study conducted in Saudi Arabia revealed that a substantial lack of knowledge about cardiovascular disease and its risk factors led to unhealthy lifestyle choices, further exacerbating the prevalence of coronary artery disease.⁷

Furthermore, research by Barry et al indicates that patients with acute coronary syndrome (ACS) often harbour incorrect beliefs about the necessity of their medications, resulting in reduced adherence and an increased risk of adverse health events.⁸ Birnbach et al reported that only 45.1% of patients experiencing acute myocardial infarction correctly attributed their symptoms to a cardiac cause. This lack of symptom recognition can cause significant delays in seeking appropriate medical care. Their review emphasized that while knowledge of "classic" symptoms, such as chest pain, was moderate to good, awareness of less obvious symptoms—like nausea or fatigue—was alarmingly low.⁹

Additionally, a study pointed to the high prevalence of inadequate knowledge and unhealthy lifestyle practices related to premature coronary artery disease among the Saudi population, underscoring the urgent need for comprehensive health education initiatives.¹⁰

The dangers of misinformation are further emphasized by findings from various countries, which consistently demonstrate that false beliefs about health conditions can lead to suboptimal health outcomes and increased morbidity.¹¹ Despite the existing literature highlighting the negative impact of myths and misconceptions, there remains a significant gap in understanding the prevalence of these false beliefs regarding myocardial infarction, particularly among individuals with risk factors.^{6,7,9} Addressing this gap through targeted research and educational initiatives could ultimately improve awareness and health literacy, leading to better patient care.

METHODS

This cross-sectional study, conducted in Saudi Arabia from October to November 2024, aimed to assess the prevalence of common misconceptions about heart attacks among the Saudi population. Participants were recruited through online platforms like WhatsApp and Telegram using a convenient sampling technique.

The sample size of 385 adult Saudi residents was determined based on the latest Saudi census data (2022) to achieve a 95% confidence level and a 5% margin of error. The study included adult Saudi residents of all ages.¹² Participants under the age of 18, those who did not provide informed consent, or those who did not complete the questionnaire were excluded from the study.

A self-administered online questionnaire was developed to assess the prevalence of common heart attack myths among the Saudi population. The questionnaire was informed by sources from Pomona Valley Hospital Medical Center's article "myths about heart attacks" and Fortis Healthcare's "heart attack: myths and facts".^{13,14} A preliminary study involving 30 participants was conducted to evaluate the questionnaire's validity and reliability. Feedback from this pilot study was used to refine the questionnaire, enhancing its clarity and relevance to ensure accurate data collection. The questionnaire underwent a review process by three research experts to ensure accurate Arabic translation and internal consistency, as measured by Cronbach's alpha (reliability coefficient=0.79). Responses from the pilot study were not included in the final report. To avoid bias, the words "myth" and "misconception" were not used in the title of the distributed questionnaire.

To assess the prevalence of heart attack myths among participants, a scoring system was employed. Each participant received a point for every false statement they endorsed. A higher score indicated a greater number of

myths believed, highlighting the need for targeted health education efforts to dispel these misconceptions.

Data were systematically organized and input into an Excel spreadsheet for subsequent analysis using statistical package for the social sciences (SPSS) version 27.

Descriptive statistics, including frequencies and percentages, were employed to characterize participants' demographic profiles, medical history, and risk factors. To explore potential associations between participant characteristics and their endorsement of heart attack myths, a range of statistical tests were utilized, including chi-square tests, t-tests, analysis of variance (ANOVA), and regression analysis. Statistical significance was set at a p value threshold of 0.05.

Ethical approval for this study was obtained from the King Faisal University Institutional Review Board (IRB) in Al-Ahsa (KFU-REC-2024-OCT-ETHICS2746). A detailed research proposal outlining the study's objectives, methodology, ethical considerations, and consent procedures was submitted to the IRB and approved. Informed consent was obtained from all participants prior to their involvement in the study, ensuring their voluntary participation and understanding of the research process.

RESULTS

Demographics

A total of 951 individuals participated in the study. The vast majority (87.70%, n=834) were Saudi. Approximately 40% of participants (n=376) were aged 18-25, and over half (55.94%, n=532) were female. Most participants (43.32%, n=412) held a bachelor's degree. The Western region had the highest response rate, contributing 36.07% (n=343) of the total (Table 1).

The most common medical conditions reported were hypercholesterolemia (n=75), diabetes (n=64), and hypertension (n=59). While fewer participants had a history of stroke (n=11), a notable proportion had personal (n=27) or family (n=146) histories of heart disease. Concerning cardiovascular risk factors, 107 participants were smokers, 175 were obese, and 377 reported a sedentary lifestyle.

Awareness of myocardial infarction and information sources

Nearly three-quarters of participants (n=702, 73.82%) indicated familiarity with the term "heart attack," while 249 (26.18%) were unaware. The internet emerged as the primary source of information on myocardial infarction for 580 participants (60.99%), followed by social media (46.90%, n=446). Doctors were cited as a source by 35.54% (n=338) of participants, while health educational campaigns were the least frequently reported source, mentioned by only 25.24% (n=240) (Figure 1).

Table 1: Socio-demographic information of the participants (n=951).

Socio-demographic information	Frequency (N)	Proportion (%)
Gender		
Male	419	44.06
Female	532	55.94
Age in years		
18-25	376	39.54
26-35	309	32.49
36-45	141	14.83
46-55	71	7.47
56-65	38	4.00
Older than 65	16	1.68
Nationality		
Saudi	834	87.70
Non-Saudi	117	12.30
Area of residence		
Central region	225	23.66
Eastern region	128	13.46
Northern region	32	3.36
Southern region	223	23.45
Western region	343	36.07
Education level		
No education	1	0.11
Elementary school	2	0.21
Middle school	37	3.89
High school	396	41.64
Diploma	54	5.68
Bachelor's degree	412	43.32
Master's degree	34	3.58
Doctorate	15	1.58

Myth recognition among the participants regarding myocardial infarction

The mean myth score was 2.13 ± 1.77 out of a possible 10 points. A substantial proportion of participants (26.18%, n=249) agreed with only one false statement, while 22.19% and 18.72% agreed with two or three, respectively. Notably, 16.19% (n=154) did not agree with any myths, and a small minority (0.53%, n=5) agreed with all 10 myths. Overall, a significantly low number of participants (n=42, 4.42%) had poor recognition (i.e., believing half or more) of the myths.

About half the participants (56.99%, n=542) believed that MI always presents with sudden, intense symptoms. Additionally, 34.17% (n=325) believed that MI only affects individuals with obvious risk factors such as smoking and obesity, while approximately one-quarter (n=264) thought it does not occur in physically active individuals. Over half (57.62%, n=548) were uncertain about the effectiveness of vigorous coughing during a MI, while 22.19% (n=211) believed it could be beneficial. However, the majority (89.48% and 84.12%) were aware that MI is not limited to males or the elderly (Table 2).

Association between different factors and myth scores of the participants

Myth scores were significantly associated with age ($p<0.001$) and gender ($p=0.003$). However, no significant association was found between myth scores and nationality ($p=0.240$), area of residence ($p=0.483$), or level of education ($p=0.055$) (Table 3).

With regards to medical history, diabetes ($p=0.038$), hypertension ($p=0.015$), and hypercholesterolemia ($p=0.005$) were significantly associated with myth scores. However, no significant association was found between myth scores and personal ($p=0.129$) or family ($p=0.984$)

history of cardiovascular disease. Among reported risk factors, smoking was significantly associated with myth scores ($p=0.001$), while no significant associations were found between obesity ($p=0.458$) and sedentary lifestyle ($p=0.154$) and myth scores (Table 4).

Some factors were associated with poor recognition (i.e., believing half or more) of the myths about myocardial infarction. The multivariable logistic regression analysis revealed that males were significantly twice as likely to exhibit poor recognition compared to females (AOR: 2.103, $p=0.042$). Moreover, a personal history of stroke was strongly associated with higher odds of poor recognition (AOR: 12.115, $p=0.011$) (Table 5).

Table 2: Participants' responses to myths about myocardial infarction.

Statement	Agree		Disagree		Unsure	
	N	%	N	%	N	%
Only elderly people are at risk of heart attack.	73	7.68	800	84.12	78	8.20
Heart attacks always occur suddenly with intense symptoms.	542	56.99	235	24.71	174	18.30
Heart attacks only happen to people with obvious risk factors like smoking and obesity.	325	34.17	481	50.58	145	15.25
Heart attacks only affect men.	24	2.52	851	89.48	76	7.99
Heart attacks don't happen to people who are physically active.	264	27.76	446	46.90	241	25.34
Heart attacks are always fatal.	178	18.72	567	59.62	206	21.66
Heart attacks only present with chest pain.	124	13.04	599	62.99	228	23.97
Coughing vigorously during a heart attack could save your life.	211	22.19	192	20.19	548	57.62
If I have a family history of heart attack, I cannot prevent it from happening to me.	73	7.68	610	64.14	268	28.18
Aspirin can cure a heart attack.	208	21.87	230	24.19	513	53.94

Data is presented as frequencies (n) and proportions (%)

Table 3: Participants' myth score regarding myocardial infarction and association with socio-demographic data.

Variables	All	Aware of MI		P value	Myth score		
	N	N	%		Mean	SD	P value
Age (years)							
18-25	376	297	78.99	0.034*	1.84	1.54	<0.001***
26-35	309	218	70.55		2.29	1.867	
36-45	141	94	66.67		2.28	1.887	
46-55	71	50	70.42		2.69	1.99	
56-65	38	30	78.95		2.24	1.909	
Older than 65	16	13	1.37		1.63	1.36	
Gender							
Male	419	307	73.27	0.733*	2.32	1.929	0.003**
Female	532	395	74.25		1.97	1.617	
Nationality							
Saudi	834	617	73.98	0.759*	2.1	1.767	0.240**
Not Saudi	117	85	72.65		2.31	1.779	
Area of residence							
Central region	225	160	16.82	0.857*	2.04	1.775	0.483***
Eastern region	128	96	10.09		2.01	1.759	
Northern region	32	23	2.42		2.5	1.586	

Continued.

Variables	All	Aware of MI		P value	Myth score		
	N	N	%		Mean	SD	P value
Southern region	223	168	17.67		2.1	1.803	
Western region	343	255	26.81		2.21	1.762	
Educational level							
No education	1	0	0.00	0.153*	3	-	0.055***
Elementary school	2	1	0.11		3	0	
Middle school	37	32	3.36		1.81	1.808	
High school	396	293	30.81		1.91	1.551	
Diploma	54	36	66.67		2.43	2.061	
Bachelor's degree	412	303	31.86		2.3	1.87	
Master's degree	34	28	2.94		2.32	1.628	
Doctorate	15	9	60.00		2.27	2.789	

*Pearson's Chi-square test, ** t-test, ***ANOVA, statistical significance at p<0.05

Table 4: Participants' myth score in association with their medical background, risk factors and information source about myocardial infarction.

Variables	Myth score				
	N	%	Mean	SD	P value
Medical history					
Diabetes	64	6.73	2.7	2.286	0.038
Hypertension	59	6.20	2.81	2.217	0.015
Hypercholesterolemia	75	7.89	2.76	1.979	0.005
Stroke	11	1.16	4.36	3.557	0.061
Personal history of cardiovascular disease	27	2.84	2.93	2.716	0.129
Family history of cardiovascular disease	146	15.35	2.12	1.897	0.984
Risk factors					
Smoker	107	11.25	2.88	2.113	0.001
Obese	175	18.40	2.22	1.942	0.458
Sedentary lifestyle	377	39.64	2.23	1.825	0.154
Source of information					
Social media	446	46.90	2.1	1.739	0.705
Internet	580	60.99	2.13	1.792	0.975
Doctors	338	35.54	2.07	1.88	0.511
Health educational campaigns	240	25.24	2.19	1.891	0.553
School and university	371	39.01	1.93	1.662	0.005
Family and friends	322	33.86	2.18	1.863	0.512

Statistical significance at p<0.05

Table 5: Multivariable logistic regression analysis of factors associated with poor recognition of myths about myocardial infarction.

Variables	Poor recognition of myths					
	N	%	Adjusted OR	95% C.I.		P value
				Lower	Upper	
Gender						
Female	-	-	-	-	-	-
Male	419	44.06	2.103	1.027	4.307	0.042
Age (years)						
18-35	-	-	-	-	-	-
Older than 35	266	27.97	1.501	0.719	3.13	0.279
Education						
Bachelor’s degree or above	-	-	-	-	-	-
Below bachelor’s degree	490	51.52	0.505	0.249	1.024	0.058
Medical history						

Continued.

Variables	Poor recognition of myths					
	N	%	Adjusted OR	95% C.I.		P value
				Lower	Upper	
Diabetes	64	6.73	0.464	0.106	2.019	0.306
Hypertension	59	6.20	1.597	0.434	5.883	0.481
Hypercholesterolemia	75	7.89	0.993	0.295	3.343	0.992
Stroke	11	1.16	12.155	1.51	97.849	0.019
Personal history of cardiovascular disease	27	2.84	2.414	0.51	11.413	0.266
Family history of cardiovascular disease	146	15.35	0.62	0.225	1.708	0.356
Risk factors						
Smoker	107	11.25	1.695	0.721	3.986	0.226
Obese	175	18.40	0.8	0.337	1.897	0.612
Sedentary lifestyle	377	39.64	1.465	0.73	2.938	0.283
Source of information						
Internet	580	60.99	1.432	0.71	2.89	0.316
Social media	446	46.90	0.826	0.41	1.664	0.593
Doctors	338	35.54	1.464	0.702	3.052	0.309
Health educational campaigns	240	25.24	1.133	0.513	2.504	0.757
School and university	371	39.01	0.643	0.295	1.404	0.268
Family and friends	322	33.86	1.067	0.522	2.181	0.860

Statistical significance at $p < 0.05$; adjusted odds ratio for gender, age, education, medical history, risk factors, and information source

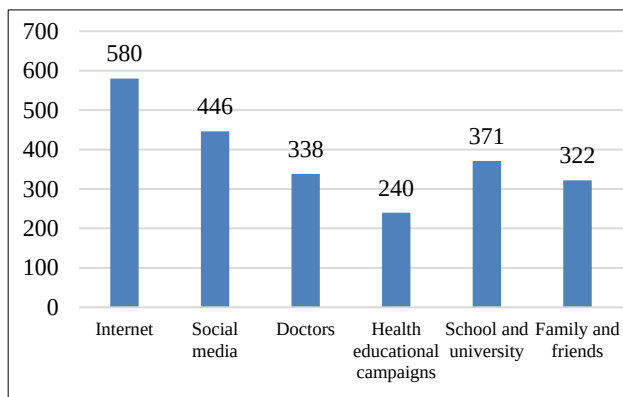


Figure 1: Participants' source of information about myocardial infarction.

Data is presented as frequency (n).

DISCUSSION

Our cross-sectional study aimed to assess the level of awareness and recognition of myths concerning MI among a diverse Saudi group. Several important insights into the present knowledge and misconceptions regarding MI in this community are revealed by the findings.

A comparatively high degree of awareness was shown by the fact that a considerable majority of participants (73.82%) recognized the term "heart attack." In this study, we found that the main source of information for our participants is the Internet, which constitutes 60.99%, followed by social media (46.90%) and physicians (35.54%). This emphasizes the critical significance of digital media in delivering health information, which corresponds to global trends. However, relying on non-expert sources increases the risk of misinformation,

emphasizing the importance of trustworthy and easily accessible instructional resources.

A high percentage of participants (56.99%) have a belief that MI occurs suddenly with severe symptoms, which in turn may represent a risk of delaying recognition of heart attack and delaying response to it, which may worsen the outcome and negatively affect individuals' health. If left untreated, acute coronary syndrome is a dangerous illness that can be lethal. Even though cardiac investigations are used to diagnose it in medical institutions, raising public knowledge of its symptoms during the golden period is crucial to saving people's lives.¹⁵

53% of South Asians think that heart attacks cannot be prevented, compared to less than 8% of our study participants with the same belief. South Asians also have significant information gaps about the modifiable risk factors for CHD. Knowledge gaps were most severe when it came to risk variables, including diabetes, blood pressure, and cholesterol, where therapeutic intervention is most effective. This corresponds to our study's findings, which showed an association between diabetes, hypertension and hypercholesterolaemia and participants' knowledge levels.¹⁶

Remarkably, only 2.52% of respondents thought that heart attacks only happened to men, whilst the majority (89.48%) felt that this was untrue. This implies that women are completely cognizant of the dangers that MI poses. In previous studies in Saudi Arabia, factors influencing awareness of MI were investigated. Results indicated that males exhibited lower awareness of risk factors than females.³ Moreover, 46.90% disagreed with the misconception that heart attacks do not affect physically

active persons, which may be due to an overestimation of the preventative effects of exercise. Meanwhile, 25.34% were unsure about the effectiveness of physical exercise, indicating a lack of information on the role of lifestyle on MI.

While the majority of people (62.99%) disagreed with the myth that said chest pain is the only symptom of heart attack, 13.04% agreed with it, and 23.97% were not sure. This indicates that some of the participants need better education on the diversity of MI presentations to improve healthcare seeking.

Only 7.68% agreed with a family history of heart attack making it unpreventable, while 64.14% disagreed and 28.18% were unsure. Positive family history is a common factor reported by individuals with coronary artery disease or myocardial infarction. To better understand the prevalence and significance of this factor in risk assessment, it's essential to differentiate between sporadic cases and those with a hereditary component.¹⁷ In addition, 21.87% believed aspirin can cure heart attacks while 53.94% were unsure; this lack of knowledge about MI treatment may lead to a delay in seeking professional help from healthcare providers.

Most participants disagreed that heart attack occurs only in the elderly who are at risk of heart attack. This finding goes in line with Al-Khlaiwi's study conducted in Riyadh, where 46% of participants believed that CAD could occur in people under 45 years old.¹⁰ Furthermore, more than half of the participants disagreed that heart attacks presented only with chest pain. Alsaab's study conducted in 2023 assessed the Saudi public's awareness about the symptoms of MI and found that the majority (87%) of the community was certain the most important symptom is chest pain. As for the rest of the symptoms, such as back pain and upper abdominal pain, less than 50 percent agreed that they might be symptoms of MI.³ Around 35% of the participants agreed that heart attack only affects people with obvious risk factors such as smoking and obesity. Meanwhile, a study conducted in the United States by Kandula showed that 44% of the participants believed stress was the most specific risk factor, followed by a diet high in fat, then cholesterol, yet a small number (11%) believed so about smoking.¹⁶

Limitations

While this study offers valuable insights, it is important to acknowledge some limitations. Firstly, the study relied on Pomona Valley Hospital Medical Center and Fortis Healthcare's articles about common MI myths to formulate the questionnaire.^{13,14} These articles cover a list of common misconceptions. The questionnaire asks the participants about their thoughts on the provided statements. However, the nature of the questionnaire may have limited the acquisition of unlisted myths. Therefore, the study can only provide an approximate and qualitative description of the Saudi society's perception of the

provided common misconceptions. Additionally, while our cross-sectional study determined some associations between the participants' characteristics and the myth beliefs, it was not able to assess causal relationships. It also only inquired about a limited number of risk factors and health conditions that we found important to assess. Conducting a similar study as an interview may provide more extensive results.

CONCLUSION

Our study participants show good recognition of myths about myocardial infarction. The internet emerged as the primary source of information. The study also showed links between myth beliefs and demographic factors like age and gender, in addition to health conditions such as diabetes and hypertension. Men and people with histories of strokes had the lowest levels of awareness compared to others. Correcting misconceptions is crucial as it significantly affects society in terms of avoiding risk factors, reducing complications of cardiovascular disease, and knowing how to deal with such emergency.

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REFERENCES

- Ojha N, Dhamoon AS. Myocardial Infarction. In: StatPearls. Treasure Island (FL): StatPearls Publishing. 2023.
- Olvera Lopez E, Ballard BD, Jan A. Cardiovascular Disease. In: StatPearls. Treasure Island (FL): StatPearls Publishing. 2023.
- Alsaab SM, Almutairi AM, Alsaadi GK, Altokhais ZA, Alabdulqader SH, Alnofal WY, et al. Awareness of Myocardial Infarction Symptoms and Risk Factors in Saudi Arabia: A Cross-Sectional Study. *Cureus*. 2023;15(12):e50092.
- Alqahtani BA, Alenazi AM. A national perspective on cardiovascular diseases in Saudi Arabia. *BMC Cardiovasc Disord*. 2024;24(1):184.
- Basham K, Aldubaikhi A, Sulaiman I, Alhaider A, Alrasheed A, Bahanan F, et al. Public awareness of early symptoms of acute myocardial infarction among Saudi population. *J Fam Med Prim Care*. 2021;10(10):3785-90.
- Beasant B, Lee G, Vaughan V, Lotfaliany M, Hosking S. Health literacy and cardiovascular disease prevention: a systematic scoping review protocol. *BMJ Open*. 2022;12(6):e054977.
- Alkalash SH, Alfaqih AH, Alsohabi ER, Al-Faqih AH, Ahmed AA, Almahmudi KH, et al. Public

- Knowledge and Attitude Regarding Symptoms of Acute Coronary Syndrome and Its Related Risk Factors in Western Region, Saudi Arabia. *Cureus*. 2024;16(6):e63001.
8. Barry AR, Wang EH, Chua D, Zhou L, Hong KM, Safari A, et al. Patients' Beliefs About Their Cardiovascular Medications After Acute Coronary Syndrome: A Prospective Observational Study. *CJC Open*. 2023;5(10):745-53.
9. Birnbach B, Höpner J, Mikolajczyk R. Cardiac symptom attribution and knowledge of the symptoms of acute myocardial infarction: a systematic review. *BMC Cardiovasc Disord*. 2020;20:1-2.
10. Al-Khlaiwi T, Alshammari H, Habib SS, Alobaid R, Alrumaih L, Almojel A, et al. High prevalence of lack of knowledge and unhealthy lifestyle practices regarding premature coronary artery disease and its risk factors among the Saudi population. *BMC Public Health*. 2023;23(1):908.
11. Svenningsen A, Söderström S, Bucher Sandbakk S, Gullestad L, Bønaa KH, Wisløff U, et al. Mind the intention-behavior gap: a qualitative study of post-myocardial infarction patients' beliefs and experiences with long-term supervised and self-monitored physical exercise. *BMC Sports Sci Med Rehab*. 2024;16(1):204.
12. Saudi Census. Population by Region, Nationality and Gender. 2022. Available at: <https://portal.saudi.census.sa/portal/public/1/15/45?type=DASHBOAR>. Accessed on 29 May 2024.
13. Vangala N. Pomona Valley Hospital Medical Center. Myths About Heart Attacks. 2019. Available at: <https://www.pvhmc.org/blog/2019/february/myths-about-heart-attacks/>. Accessed on 29 May 2024.
14. Kau A. Fortis Healthcare. Heart Attack: Myths and Facts. 2023. Available at: <https://www.fortishealthcare.com/blogs/heart-attack-myths-and-facts>. Accessed on 29 May 2024.
15. Issa LF, Alharthi Y, Alsuqair R, Althagafi B, Alghamdi E, Althobity T, et al. Coronary artery disease risk factors in Saudi Arabia: Knowledge, awareness and prevalence assessment. *Med Sci*. 2022;26.
16. Kandula NR, Tirodkar MA, Lauderdale DS, Khurana NR, Makoul G, Baker DW. Knowledge gaps and misconceptions about coronary heart disease among US South Asians. *Am J Prev Med*. 2010;38(4):439-42.
17. Tunstall-Pedoe H, Vanuzzo D, Hobbs M, Mähönen M, Cepaitis Z, Kuulasmaa K, et al. Estimation of contribution of changes in coronary care to improving survival, event rates, and coronary heart disease mortality across the WHO MONICA Project populations. *The Lancet*. 2000;355(9205):688-700.

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