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ANXIETY AND FEAR OF DEATH IN ACUTE CORONARY SYNDROME (ACS)

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ABSTRACT

Research objectives: Anxiety and fear of dying in ACS episodes are recognized as common symptoms that can influence patient outcomes. Etiology of those symptoms remains uncertain, but evidence suggests that the severity of other symptoms and their rapid appearance, combined with the life-threatening nature of ACS, are the main factors.
Methods: This review explores mainly PubMed and Google Scholar databases for studies published between 2000 and 2025. The articles included original research and review papers focusing on the occurrence of anxiety and fear of death symptoms in patients experiencing acute coronary syndrome (ACS), their impact on mortality, severity of anxiety, methods of detecting and finding correlation between those symptoms and types of ACS.
Key findings: Occurrence of Anxiety is high, presented in 32.9% to 56.5% patients. Fear of death occurrence is lower, presented in 21.7% patients. The Cardiac Anxiety Questionnaire (CAQ) is a specialized tool to measure anxiety in ACS. Anxiety during ACS can be divided into three categories: Mild, Moderate, and High/Severe. Anxiety in ACS is associated with 21% greater mortality risk and 47% more major adverse cardiovascular events (MACEs). There is no clear link between anxiety and a specific type of ACS because research results are different and ambiguous.
Conclusion: Anxiety and Fear of death are common but hard to recognize symptoms that occur during ACS. Their presence can cause worse outcomes in some patients. Correct diagnosis and knowledge how to treat fear and anxiety symptoms will improve patient outcomes.

KEYWORDS

Acute Coronary Syndrome, ACS, Anxiety, Fear of Death

CITATION

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Introduction:

Acute coronary syndrome is one of the most common causes of death in highly developed countries and also in the rest of the world, causing 9 million deaths yearly[1]. The global incidence of heart attack in people under 60 years of age is approximately 3.8%, and in people over 60 years, 9.5% [2]. Caused by sudden, reduced blood flow to the heart muscle due to partial or complete blockage of a coronary artery, typically resulting from the rupture of anatherosclerotic plaque followed by thrombosis. This interruption in blood supply can lead to varying degrees of myocardial ischemia or infarction, depending on the severity and duration of the obstruction. The condition presents with typical symptoms such as sudden chest pain or discomfort, which is often described as pressure, tightness, burning, squeezing, or aching and may radiate to the jaw, neck, shoulder, or arm. Other frequent symptoms include shortness of breath, nausea, sweating, dizziness, lightheadedness, irregular heartbeat, and a profound sense of anxiety or fear of dying. In some cases, symptoms can be atypical, especially in women, elderly, or diabetic patients, making timely diagnosis and treatment crucial to prevent extensive heart damage or death[3;4;5]. Diagnostic criteria for ACS are summed up in Table1.

Table 1. diagnosis criteria for acute coronary syndrome, source: *2025 ACC/AHA/ACEP/NAEMSP/SCAI Guideline for the Management of Patients With Acute Coronary Syndromes*

Criteria	Description	Notes
Clinical History	Symptoms of myocardial ischemia such as chest pain/discomfort (pressure, tightness, squeezing), shortness of breath, nausea, diaphoresis, dizziness, anxiety	Symptoms should be a sudden onset and be consistent with ischemia
Electrocardiogram (ECG)	- STEMI: New ST-segment elevation at the J-point in two contiguous leads, with cutoffs varying by lead and sex - NSTEMI/Unstable Angina: New or presumed new horizontal or down-sloping ST depression ≥0.5 mm, T-wave inversion >1 mm in two contiguous leads	A new bundle branch block (LBBB) may be considered STEMI equivalent
Cardiac Biomarkers	Elevated cardiac troponin (cTn) above 99th percentile upper reference limit, with a rise and/or fall pattern indicating myocardial injury	Serial measurements over hours are recommended for confirmation
Imaging	New regional wall motion abnormalities on echocardiography or evidence of loss of viable myocardium on MRI consistent with ischemia	Supports diagnosis, not standalone
Exclusion of Non-Ischemic Causes	Rule out myocarditis, takotsubo syndrome, and other mimickers of ACS	Important for differential diagnosis

Anxiety and fear of death are common and significant symptoms experienced by patients during acute coronary syndrome (ACS). The acute and life-threatening nature of ACS often provokes intense emotional responses. Additionally, changes in tryptophan metabolism reduce serotonin levels, potentially affecting mood and increasing anxiety. These psychological symptoms are not only distressing but also contribute physiologically by activating the sympathetic system and HPA axis, which leads to increased adrenaline and cortisol levels. Increased blood pressure and heart rate are making the myocardium demand more oxygen, and that can worsen cardiac instability and provoke arrhythmias[6].

Frequency of anxiety occurrence in ACS.

Anxiety in ACS is present in roughly 32.9% to 56.5% patients. This makes anxiety a common symptom along with characteristic symptoms of ACS [4]:

- Chest discomfort/pain is the most common presenting symptom of ACS and affects approximately 79% of men and 74% of women presenting with ACS[7].
- Shortness of breath is a common symptom of ACS presented in 47%-49.9% patients[8;9;10].
- Diaphoresis is a less common symptom presented in around 28% patients[11].
- Nausea is present in 23% of ACS causes[11].
- Vomiting is present in 17% of ACS causes[11].
- Lightheadedness/dizziness in around 10% of ACS[12].

A specialized tool to measure anxiety in ACS patients is the Cardiac Anxiety Questionnaire (CAQ). It consists of 18 items divided into three main subscales. The Cardiac Anxiety Questionnaire is shown in Table 2

Table 2. Cardiac Anxiety Questionnaire source: *The Cardiac Anxiety Questionnaire: development and preliminary validity, Eifert et al. 2000.*

Item	Question	Never	Rarely	Sometimes	Often	Always
1	I pay attention to my heartbeat	0	1	2	3	4
2	I avoid physical exertion	0	1	2	3	4
3	My racing heart wakes me up at night	0	1	2	3	4
4	Chest pain/discomfort wakes me up at night	0	1	2	3	4
5	I take it easy as much as possible	0	1	0	2	4
6	I check my pulse	0	1	2	3	4
7	I avoid exercise or other physical work	0	1	2	3	4
8	I can feel my heart in my chest	0	1	2	3	4
9	I avoid activities that make my heart beat faster	0	1	2	3	4
10	If tests come out normal, I still worry about my heart	0	1	2	3	4
11	I feel safe being around a hospital, physician or other medical facility	0	1	2	3	4
12	I avoid activities that make me sweat	0	1	2	3	4
13	I worry that doctors do not believe my symptoms are real	0	1	2	3	4
14	I worry that I may have a heart attack when I have chest discomfort or heart racing	0	1	2	3	4
15	I have difficulty concentrating on anything else when I have chest discomfort or racing heart	0	1	2	3	4
16	I get frightened when I have chest discomfort or a racing heart	0	1	2	3	4
17	I like to be checked out by a doctor when I have chest discomfort or heart racing	0	1	2	3	4
18	I tell my family or friends when I have chest discomfort or heart racing	0	1	2	3	4

Scoring:
Total score: Compute the mean of all 18 items
Fear (subscale): Compute the mean of items 10, 11, 13, 14, 15, 16, 17, and 18
Avoidance (subscale): Compute the mean of items 2, 5, 7, 9, and 12
Heart-Focused Attention (subscale): Compute the mean of items 1, 3, 4, 6, and 8

Each item in the questionnaire is rated on a 5-point Likert scale from 0 (never) to 4 (always), with higher scores indicating greater levels of cardiac anxiety.

The CAQ has shown good psychometric properties including internal consistency, test-retest reliability, and validity across different populations, including post-myocardial infarction patients. It is not a psychiatric diagnostic tool but serves to quantify the severity and specific aspects of cardiac anxiety.

Interpretation of the CAQ results involves looking at total cardiac anxiety severity as well as patterns in the subscales. For example, high scores on the avoidance subscale suggest a patient may be limiting physical or daily activities due to fear of cardiac symptoms, which has been linked to worse cardiac outcomes. Clinicians can use CAQ data to identify specific anxiety-related behaviors or fears that may need targeted psychological or behavioral intervention to improve cardiac prognosis.

This instrument enables clinicians to go beyond general anxiety or depression assessments and focus specifically on heart-related anxiety, which can be an independent factor affecting recovery and cardiac event risk after myocardial infarction[13;14;15].

Subtypes of anxiety in ACS.

There is three types of anxiety based on their severity[4].

- Mild anxiety is presented in 38% of ACS patients. Mild worry, occasional nervousness or restlessness are most common symptoms. Generally manageable with psychoeducation and supportive counseling, patients retain good functional capacity.
- Moderate anxiety is presented in 17% of ACS patients. More frequent or intense anxiety episodes, including persistent worry, sleep disturbances, and somatic symptoms like muscle tensions or palpation. This type noticeably affects daily activities, treatment adherence, and quality of life.
- High/Severe anxiety is presented in 10% of ACS patients. Severe and disabling anxiety with panic attacks, intense fear, fear of death and significant autonomic symptoms. Major impairment in function and increased risk of adverse cardiovascular outcomes due to stress-related physiological burdens.

Fear of death and its occurrence in ACS.

One type of anxiety that is characteristic of ACS is the fear of death, out of 184 patients evaluated by Whitehead et al. In a comparative study (2005), intense distress and fear of dying were reported by 40 patients (21.7%) and moderate fear and distress by 95 patients (51.6%)[16]. Additionally, fear of death in ACS correlates with heightened psychological distress and affects patient behaviors such as medication adherence and physical activity, which are crucial for recovery and secondary prevention[17].

According to Steptoe et al. study, fear of death was more common in younger, lower socioeconomic status, and unmarried patients. A positive relation between plasma TNFα on admission and fear of death was also found[18].

Presence of anxiety and its impact on mortality.

Meta-analysis by Li J et al. Showed that anxiety symptoms appearing for the first time during an acute coronary syndrome (ACS) episode, without prior history of anxiety, are also associated with worse outcomes, including higher mortality risk. This study indicates that anxiety symptoms present at baseline during ACS, the initial period of the acute event, are linked to a 21% greater risk of mortality and a 47% higher risk of major adverse cardiovascular events (MACEs) compared to those without anxiety symptoms, regardless of previous anxiety history [19].

Types of ACS and their correlations to anxiety.

STEMI, NSTEMI and Unstable Angina.

Acute coronary syndrome can be divided into three major subtypes: unstable angina, non-ST elevation myocardial infarction (NSTEMI), and ST elevation myocardial infarction (STEMI). Diagnostic criteria that can differentiate these subtypes are summed up in Table 3.

Table 3. Diagnosing criteria for subtypes of acute coronary syndrome, source: *2025 ACC/AHA/ACEP/NAEMSP/SCAI Guideline for the Management of Patients With Acute Coronary Syndromes*

Diagnostic Aspect	STEMI	NSTEMI	Unstable Angina
Clinical Presentation	Acute ischemic chest pain ≥20 minutes with features of myocardial ischemia	Similar symptoms as STEMI but less severe or variable	New or worsening angina, rest angina or minimal exertion
ECG	Persistent ST-segment elevation in contiguous leads (≥1 mm in limbs, ≥2 mm in precordial leads)	ST-segment depression and/or T-wave inversion	May have transient ischemic changes or be normal
Troponin levels	Elevated cardiac troponin levels with rise and/or fall indicating myocardial necrosis	Elevated cardiac troponin levels with rise and/or fall	Normal cardiac troponin levels
Other Diagnostic Notes	Presence of new pathological Q waves, loss of viable myocardium	Absence of Q waves initially; no persistent ST elevation	No myocardial injury evidenced by markers
Imaging	Coronary angiography showing occlusion or thrombosis	Coronary angiography showing partial occlusion or severe stenosis	Possible angiographic evidence of unstable plaque

A study by Li P. et al. investigated preexisting anxiety disorders in myocardial infarction (MI) patients and showed that the prevalence of anxiety was slightly lower in STEMI (7.9%) than in NSTEMI patients (11.0%). Preexisting anxiety was associated with better short-term in-hospital outcomes in NSTEMI patients, but had no significant impact on STEMI patients' outcomes[20].

Another study by L. Albarqouni et al. focused specifically on fear of death during ACS, noting it is experienced by a clinically meaningful minority of vulnerable STEMI patients and associates with faster hospital admission in men but not in women, showing that fear of death is present and significant in STEMI patients but does not provide a direct comparison to NSTEMI or unstable angina[21].

Sławska et al. found that patients with a fear of death were more frequently diagnosed with STEMI compared to patients without that fear. They noted no similar relation for NSTEMI or unstable angina[22].

Results:

Anxiety affects 32.9-56.5% of ACS patients, while fear of death occurs in 21.7%. Anxiety severity divides into mild (38%), moderate (17%), and high/severe (10%). Anxiety during ACS links to 21% higher mortality and 47% more MACEs. Fear of death correlates with younger age, lower SES, and elevated TNFα, promoting faster admission in some STEMI cases. Preexisting anxiety prevalence: STEMI (7.9%), NSTEMI (11.0%). Fear of death more frequent in STEMI vs. NSTEMI/unstable angina, with ambiguous overall correlations.

Discussion:

These findings highlight anxiety and fear of death as prevalent, modifiable factors in ACS that independently worsen prognosis, urging integrated psychocardiac care. Anxiety affects 32.9-56.5% of ACS patients—comparable to shortness of breath (47-49.9%)—yet remains underrecognized, especially alongside fear of death (21.7%). High/severe cases (10%) drive 21% higher mortality and 47% more MACEs via sympathetic/HPA activation, elevating oxygen demand and arrhythmias. The CAQ's validated subscales enable precise targeting, distinguishing heart-focused fears from general anxiety to guide interventions like CBT. Routine CAQ screening in ACS could identify at-risk patients (e.g., younger, low-SES with elevated TNFα), improving adherence and outcomes. Mild/moderate anxiety (55% combined) responds to psychoeducation, while severe forms demand multidisciplinary management to mitigate physiological burdens. Atypical presentations in women/elderly underscore need for holistic symptom assessment beyond chest pain.

Conclusion:

Anxiety and fear of death are common and serious symptoms in acute coronary syndrome (ACS) that can significantly impact patient outcomes. This review highlights the critical importance of accurate and rapid detection of these symptoms to reduce mortality and major adverse cardiovascular events (MACEs). Despite its frequent occurrence, anxiety is notably omitted from the clinical diagnostic criteria for acute coronary syndrome(ACS); it may cause worse outcomes, influence patient prognosis, treatment adherence, and quality of life. Future research should prioritize exploring effective interventions tailored to anxiety in ACS. Educating patients about the symptoms of ACS, such as anxiety and fear of death, and their impact on prognosis should be prioritized higher.

Authors' contribution:

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REFERENCES

1. Chong, B., Jayabaskaran, J., Jauhari, S. M., Chan, S. P., Goh, R., Kueh, M. T. W., Li, H., Chin, Y. H., Kong, G., Anand, V. V., Wang, J.-W., Muthiah, M., Jain, V., Mehta, A., Lim, S. L., Foo, R., Figtree, G. A., Nicholls, S. J., Mamas, M. A., ... Chan, M. Y. (2025). Global burden of cardiovascular diseases: Projections from 2025 to 2050. *European Journal of Preventive Cardiology*. https://doi.org/10.1093/eurjpc/zwae281
2. Salari, N., Morddarvanjoghi, F., Abdolmaleki, A., Rasoulpoor, S., Khaleghi, A. A., Hezarkhani, L. A., Shohaimi, S., & Mohammadi, M. (2023). The global prevalence of myocardial infarction: A systematic review and meta-analysis. *BMC Cardiovascular Disorders, 23*, Article 206. https://doi.org/10.1186/s12872-023-03231-w
3. DeVon, H. A., Mirzaei, S., & Zègre-Hemsey, J. (2020). Typical and atypical symptoms of acute coronary syndrome: Time to retire the terms? *Journal of the American Heart Association, 9*(7), e015539. https://doi.org/10.1161/JAHA.119.015539
4. Castro Mejía, P. J., Dondero Cassano, P., Díaz Morón, P., Díaz Reátegui, M., Menacho Navarrete, K., & Córdova-Mendoza, P. (2023). Prevalence of anxiety and depression in patients with acute coronary syndrome: Systematic review and meta-analysis. *The Pan African Medical Journal, 46*, Article 91. https://doi.org/10.11604/pamj.2023.46.91.41792

5. Perona, M., Cooklin, A., Thorpe, C., O'Meara, P., & Rahman, M. A. (2024). Symptomology, outcomes and risk factors of acute coronary syndrome presentations without cardiac chest pain: A scoping review. *European Cardiology Review, 19*, e13. https://doi.org/10.15420/ecr.2023.45
6. Alkhaqani, A. L. (2023). Impact anxiety on quality of life and clinical outcomes of patients with acute coronary syndrome. *Figshare*. https://doi.org/10.6084/m9.figshare.22266301
7. Bhatt, D. L., Lopes, R. D., & Harrington, R. A. (2022). Diagnosis and treatment of acute coronary syndromes: A review. *JAMA, 327*(7), 662–675. https://doi.org/10.1001/jama.2022.0358
8. Spek, M., Venekamp, R. P., Erkelens, D. C. A., van Smeden, M., Wouters, L. T. C. M., den Ruijter, H. M., Rutten, F. H., & Zwart, D. L. (2023). Shortness of breath as a diagnostic factor for acute coronary syndrome in male and female callers to out-of-hours primary care. *Heart*. https://doi.org/10.1136/heartjnl-2023-323220
9. Parodi, G., & Storey, R. F. (2014). Dyspnoea management in acute coronary syndrome patients treated with ticagrelor. *European Heart Journal: Acute Cardiovascular Care, 4*(6), 555–560. https://doi.org/10.1177/2048872614554108
10. Boeddinghaus, J., Nestelberger, T., Koechlin, L., Lopez-Ayala, P., Wussler, D., Mais, M., Zwimpfer, L., Zimmermann, T., Wildi, K., Rubini Giménez, M., Strebel, I., Miró, Ò., Martin-Sanchez, F. J., Parenica, J., Keller, D. I., Gualandro, D. M., Nickel, C. H., Bingisser, R., Christ, M., & Mueller, C. (2023). Association of accompanying dyspnoea with diagnosis and outcome of patients presenting with acute chest discomfort. *European Heart Journal: Acute Cardiovascular Care, 12*(5), 283–295. https://doi.org/10.1093/ehjacc/zuad026
11. Gokhroo, R. K., Ranwa, B. L., Kishor, K., Priti, K., Ananthraj, A., Gupta, S., & Bisht, D. (2015). Sweating: A specific predictor of ST-segment elevation myocardial infarction among the symptoms of acute coronary syndrome: Sweating in myocardial infarction (SWIMI) Study Group. *Clinical Cardiology, 39*(1), 17–22. https://doi.org/10.1002/clc.22498
12. Dobbe, A. S. M., Zwart, D. L., van der Hem, L., Erkelens, D. C., Wouters, L. T. C. M., van Doorn, S., den Ruijter, H. M., & Rutten, F. H. (2025). Are dizziness/lightheadedness helpful symptoms for telephone triage of females and males calling the out-of-hours service for acute chest discomfort? A cross-sectional study. *BMJ Open, 15*(2), e092368. https://doi.org/10.1136/bmjopen-2024-092368
13. Leissner, P., Held, C., Humphries, S., Rondung, E., & Olsson, E. M. G. (2024). Association of anxiety and recurrent cardiovascular events: Investigating different aspects of anxiety. *European Journal of Cardiovascular Nursing, 23*(7), 720–728. https://doi.org/10.1093/eurjcn/zvae036
14. Marker, C. D., Carmin, C. N., & Ownby, R. L. (2008). Cardiac anxiety in people with and without coronary atherosclerosis. *Depression and Anxiety, 25*(10), 824–831. https://doi.org/10.1002/da.20348
15. Leissner, P., Held, C., Rondung, E., & Olsson, E. M. G. (2022). The factor structure of the cardiac anxiety questionnaire, and validation in a post-MI population. *BMC Medical Research Methodology, 22*, Article 338. https://doi.org/10.1186/s12874-022-01820-5
16. Whitehead, D. L., Strike, P., Perkins-Porras, L., & Steptoe, A. (2005). Frequency of distress and fear of dying during acute coronary syndromes and consequences for adaptation. *The American Journal of Cardiology, 96*(11), 1512–1516. https://doi.org/10.1016/j.amjcard.2005.07.070
17. Birk, J. L., Cumella, R., Lopez-Veneros, D., Jurado, A., Romero, E. K., Lazarov, A., & Kronish, I. M. (2020). Intervening on fear after acute cardiac events: Rationale and design of the INFORM randomized clinical trial. *Health Psychology, 39*(9), 736–744. https://doi.org/10.1037/hea0000853
18. Steptoe, A., Molloy, G. J., Messerli-Bürgy, N., Wikman, A., Randall, G., Perkins-Porras, L., & Kaski, J. C. (2011). Fear of dying and inflammation following acute coronary syndrome. *European Heart Journal, 32*(19), 2405–2411. https://doi.org/10.1093/eurheartj/ehr132
19. Li, J., Ji, F., Song, J., Gao, X., Jiang, D., Chen, G., Chen, S., Lin, X., & Zhuo, C. (2020). Anxiety and clinical outcomes of patients with acute coronary syndrome: A meta-analysis. *BMJ Open, 10*(7), e034135. https://doi.org/10.1136/bmjopen-2019-034135
20. Li, P., Lu, X., Kranis, M., Wu, F., Teng, C., Cai, P., Hashmath, Z., & Wang, B. (2020). The association between anxiety disorders and in-hospital outcomes in patients with myocardial infarction. *Clinical Cardiology, 43*(6), 622–629. https://doi.org/10.1002/clc.23358
21. Albarqouni, L., von Eisenhart Rothe, A., Ronel, J., Meinertz, T., & Ladwig, K. H. (2016). Frequency and covariates of fear of death during myocardial infarction and its impact on prehospital delay: Findings from the multicentre MEDEA Study. *Clinical Research in Cardiology, 105*, 135–144. https://doi.org/10.1007/s00392-015-0895-3
22. Sławska, A., & Siudak, Z. (2018). Fear of death in acute coronary syndromes—incidence and predictors. *Medical Studies/Studia Medyczne, 34*(4), 304–308. https://doi.org/10.5114/ms.2018.80946
23. Rao, S. V., O'Donoghue, M. L., Ruel, M., Rab, T., Tamis-Holland, J. E., Alexander, J. H., & others. (2025). 2025 ACC/AHA/ACEP/NAEMSP/SCAI guideline for the management of patients with acute coronary syndromes. *Circulation*. https://doi.org/10.1161/CIR.0000000000001309
24. Eifert, G. H., Thompson, R. N., Zvolensky, M. J., Edwards, K., Frazer, N. L., Haddad, J. W., & Davig, J. (2000). The Cardiac Anxiety Questionnaire: Development and preliminary validity. *Behaviour Research and Therapy, 38*(10), 1039–1053. https://doi.org/10.1016/S0005-7967(99)00132-1