

Anxiety and Cardiovascular disease

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ABSTRACT

Anxiety and its associated disorders are common in patients with cardiovascular disease and may significantly influence cardiac health. Anxiety disorders are associated with the onset and progression of cardiac disease, and in many instances have been linked to adverse cardiovascular outcomes. The researcher intended to assess the level of Anxiety among CAD patient. Descriptive survey design was adopted and 30 subjects with cardiovascular disorders were selected by employing Non probability purposive sampling technique with age between 30-65 years admitted in critical care units Anxiety scale was used to collect the data and analyzed by using descriptive and inferential statistics. The results reveal that Majority of Patients with CAD fallen in to Panic or Cat III anxiety level. The study concluded that Anxiety levels are high among CAD patients and it has to be reduced by using various behavioural therapies which prevents recurrence and improves quality of life.

Keywords: *Coronary artery disease, Anxiety, critical care units, Panic Disorders, descriptive study*

Anxiety is common in patients with cardiovascular disease, such as coronary artery disease (CAD). Following an ACS, 20-30% of patients experience elevated levels of anxiety [1, 2]. While post-ACS anxiety may be transient for some patients, in half of cases anxiety persists for up to 1 year post-event [1], suggesting that for many patients with heart disease, anxiety is a chronic condition.

Anxiety has been associated with the incidence, and in some cases progression, of cardiovascular disease. In patients without existing cardiac disease, anxiety has been linked to the subsequent development of CAD. In a 2010 meta-analysis including 20 studies and nearly 250,000 patients, Roest and colleagues found that anxiety, controlling for other medical variables when possible, led to a 26% increased risk of incident CAD [3]. While the overall findings were significant, it should be noted that only 10 of the 20 studies found a significant relationship between anxiety and incident CAD in multivariate analyses, suggesting that there are heterogeneous findings in the literature regarding this relationship.

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There are several mechanisms that may explain the underlying association between anxiety disorders and cardiac disease. Though no definitive model exists, these hypotheses include both behavioral and physiologic factors



Potential mechanisms mediating the relationships between anxiety disorders and cardiac health

High or increasing level of anxiety that is maintained over an extended period is associated with an increased risk of MI and death in patients with CAD^[8].

Identification of psychiatric disorders (anxiety and depression) in CAD patients has shown to improve prognosis and quality of life of patients with CAD^[4]. Patients treated for their depression and anxiety might better adhere to risk factor modifications, prescribed medications, and rehabilitation programs. Therefore, patients with known CAD with evidence of psychiatric morbidity should be evaluated^[5]. Around 95.4% of patients with ischemic heart disease (IHD) reported psychiatric symptoms, either depression or anxiety. Major depressive disorder was found in 34.6% patients and anxiety disorder was present in 36.9% patients. Majority of patients with poor quality of life were in the domain of anxiety/depression^[6]. Similarly, anxiety and depression were present in 48.5% and 25.2% of the patients with myocardial infarction^[7].

Objectives

1. To assess the level of Anxiety among cardiovascular disease patients
2. To elicit the association between level of Anxiety and selected variables

Hypothesis

A significant association will be there between level of Anxiety and selected variables.

METHODOLOGY

Descriptive survey design was adopted and 30 subjects with cardiovascular disorders were selected by employing Non probability purposive sampling technique with age between 30-65 years admitted in critical care units at NRIGH.

Criteria for the selection of participants

Inclusion Criteria

The study included patients with CAD who are

1. in between the age group of 30-65 years.
2. Admitted in CCU at NRIGH, Chinakakani, Guntur. A.P.
3. having elevated cardia markers (Troponin-1, Myoglobin) and Ischemia.
4. willing to participate in the study.
5. available at the time of data collection

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Exclusion Criteria

The study excluded patients with CAD who are

1. having the age below 30 years and above 65 years.
2. admitted in other than CCU at NRIGH, Chinakakani, Guntur.
3. having inflammatory disease and neurological problems.
4. not willing to participate in the study.
5. not available at the time of data collection

Method of data collection

structured interview schedule (Part-A) and standardized scales to assess the level of anxiety) were adopted.

Description of the tool

based on the study objectives the tool was divided in to two sections,

Part-A :- Demographic data was gathered by structured interview schedule

Part-B :- The level of Anxiety was assessed by Anxiety Scale.

Ethical considerations

Written informed consent was obtained from all participants prior to assessment explaining the nature of current study to the antecedents and patients. Ethical clearance was obtained from the institutional ethical committee.

Collection of data

Patient diagnosed with CAD and fulfilling the specified inclusion and exclusion criteria were recruited from the coronary care units at NRIGH Chinakakani, Guntur District, Andhra Pradesh. Patients were explained about the nature and purpose of the study, information regarding the assessment on level of anxiety was given. Informed consent was obtained from all the patients. The session was closed by thanking the participants

RESULTS

Table:1 Frequency and Percentage distribution of Demographic characteristics of sample N=30

S.No	Socio demographic variables	(f)	%
1.	Age		
	a) 35-44 years	01	3.333
	b) 45-54 years	07	23.333
	c)55-64years	19	63.334
	d)> 64 years	03	10
2.	Gender		
	a) Male	22	73.333
	b) Female	08	26.667
3.	Smoking status		
	a)Never	04	13.333
	b) Past	26	86.667
	c) Current	-	-
4.	Alcohol status		
	a) Never	02	6.667
	b) Moderate	22	73.333
	c) Heavy	06	20.
5.	Exercise		

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S.No	Socio demographic variables	(f)	%
	a) Never	18	60
	b) Once in a week	-	-
	c) Twice in a week	-	-
	d) Thrice in a week or more	12	40
6.	BMI		
	a) <25	-	-
	b) 25-29.9	05	16.667
	c) 30-39.9	18	60
	d) ≥ 40	07	23.333
7.	Work Pattern		
	a) Sedentary worker	07	23.333
	b) Moderate worker	02	6.667
	c) Hard worker	21	70

Table-3 Frequency and percentage distribution, of Anxiety level N=30

Level of anxiety	Frequency	Percentage
Minimal anxiety (0-4)	-	-
Worry or category-I (5-9)	02	6.667
Distress or category-II(10-14)	06	20
Panic or category-III (15 or more)	22	70.33

Table-04 Difference in Mean scores of Anxiety among Acute Coronary Syndrome patients N=30

LEVEL OF ANXIETY	MEAN SCORES	STANDARD DEVIATION
Minimal anxiety (0-4)	-	-
Worry or category-I (5-9)	8.5	0.707
Distress or category-II (10-14)	11.333	1.0327
Panic or category-III (15 or more)	17.09	1.849

Chi square showing association between level of Anxiety with selected variables.

- There is a significant association between level of Anxiety among CAD patients with Age; Chi square = 7.82, Gender=5.51, at ($p \geq 0.05$) with degrees of freedom 3.

DISCUSSION

While much of the literature to date has focused on the associations between anxiety as a symptom and cardiovascular health, it may be more important to examine the links between anxiety disorders and heart health. By definition, anxiety in the setting of anxiety disorders is chronic and persistent, and therefore it may have greater physiologic consequences than transient anxiety.

The Present study findings were concurrent with findings of present study, majority 70.33% were in Cat III or panic, 20% in cat II or distress and 6.667% in to Cat II or worry . A significant association was found between level of anxiety with Age and Gender

Panic disorder (PD) also is common in patients with heart disease. Among patients with CAD, studies have varied, with one review providing PD prevalence estimates of 10-50% [10].

though another analysis and a recent cross-sectional study estimated PD prevalence of 5-8% in patients with established CAD ^[11,12,13].

Generalized anxiety disorder (GAD) is highly prevalent in patients with cardiac disease. A recent meta-analysis found an 11% point prevalence and 26% lifetime prevalence of GAD in CAD patients ^[9].

CONCLUSION

Present study concluded that majority of CAD patients had Anxiety and significant association was found between level of anxiety and Age & Gender. Further studies should focus on treating Anxiety among CAD patients.

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Conflict of Interest

The author declared no conflict of interests.

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