Research Article

ASSESSMENT OF PSYCHOLOGICAL CORRELATES IN TERMS OF ANGER AND DEPRESSION ON CORONARY ARTERY DISEASE PATIENTS ATTENDING CARDIOLOGY OPD OF SELECTED HOSPITAL OF WEST BENGAL

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ARTICLE INFO	ABSTRACT
	Coronary artery disease now a days considered to be a biggest threat to the Indian population. A research study was performed to assess anger and depression among patients with coronary artery disease.Conceptual framework used for this study was based on "The Roy's Adaptation Model". Material and method:Non probability purposive sampling technique was adopted to select 223 coronary artery disease patients attending Cardiology OPD of selected hospitals. Tools were semi structured interview schedule on sociodemographic variables, Clinical Anger Scale for anger and Beck Depression Inventory for depression analysis. Results:The study revealed that 40.35% patients had moderate anger and 49.32% patients had moderate depression. The study also showed that depression had significant association with marital status and duration of illness of patients with coronary artery disease.

INTRODUCTION

Coronary artery disease is known as one of the most fear full disease now a days. It has become the most common reason of death worldwide. The disease caused due to insufficient supply of blood and oxygen to the myocardial muscle. The most common cause of the event is atherosclerotic plaque formation inside the wall of the epicardial coronary arteries. Apart from that it also occurs by vasculitis and autoimmune connective tissue diseases. Atherosclerosis, a progressive inflammatory disease, that affects arterial wall. It is characterized by lipid rich deposits of atheroma which do not causes symptoms until they get big enough to affect tissue perfusion. [1]

According to World Health organization there is an estimation of 17.9 million lives are suffering from coronary artery disease yearly. Heart attacks and strokes account for more than four out of every five fatalities.[2]There are two categories of risk factors for coronary artery disease that is modifiable and non-modifiable. A 2019 article claims that in 63% to 80% of cases, age, sex and ethnicity explained prognostic performance.

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Although management of modifiable risk factors such as hypertension, hyperlipidaemia, diabetes mellitus, obesity, smoking, sedentary lifestyle led to substantial reduction of CAD events. [3]

There are many researches out there which emphasizes over biological risk factors associated with the disease but many evidences support that psychological factors plays a significant impact on the disease's genesis, course, duration and outcome.[4] Anger, tension, despair and anxiety are important variables. Out of all the above mentioned factors this study deals with anger and depression of coronary artery disease patients. After extensive literature review of studies conducted in past 10 years and keeping in mind the current scenario of psychological issues associated with long term coronary diseases this study is relevant. Measurement of anger as a psychological corelates often shows problem due to its subjectivity. Although various studies shown evidences for measurement of anger by some standardized tools. Proneness to anger leads to significant risk towards coronary artery disease morbidity.[5] Numerous studies indicates that there are indirect evidence of an independent relationship between the frequency of anger and the risk of myocardial infarction.[6]

Statement of the problem

Assessment of psychological correlates in terms of anger and depression on coronary artery disease patients attending OPD

of selected Hospital of West Bengal

Objectives of the study

1. To assess anger in coronary artery disease patients.
2. To assess depression in coronary artery disease patients.
3. To find out association between anger and selected demographic variables.
4. To find out association between depression and selected demographic variables.

Assumption

The study is based on the following assumptions-

1. Coronary artery disease patients may have some relation with anger.

2. Coronary artery disease patients may have some relation with depression.

MATERIALS AND METHODS

A descriptive survey research design was adopted during December to February 2022 in selected cardiology OPD of hospitals of Kolkata, West Bengal. A total 223 coronary artery disease patients were included in this study using non-probability purposive sampling technique. Confidentiality of the sample were positively ensured.

A standard tool of Clinical Anger Scale was used to assess anger of the selected patients and Beck Depression Inventory was used to assess depression of the same patients. Data were analyzed using descriptive and inferential statistics. Sample characteristics were described through frequency and percentage, as well as range, mean, median, standard deviation and chi-square test.

RESULTS

Sample characteristics

Socio-demographic characteristics (Table1)depicts that 63.22% patients belonged to the age group of 30-50 years and 37.21% patients belonged to the age group of more than50 years. It also shows that 59.19% patients were male and 40.8% patients were female. It also depicts that 51.56% patients gained below secondary education and 45.29% patients gained secondary education and above and 3.13% patients had no formal education.

Major findings

Table 4 shows that 40.35% coronary artery disease patients had moderate clinical anger, 29.14% patients had mild clinical anger, 19.28% patients had severe clinical anger and 11.21% patients had minimal clinical anger.

Data presents in table 5 shows that the mean score of anger of coronary artery disease patients were 22.04 with a calculated median of 22 which can be interpreted as the obtained data were almost normally distributed. The table also depicts that the score of anger of coronary artery disease patients ranging from 7-40 with SD ±7.239.which can be interpreted as the obtained data were moderately dispersed with positive skewness (+0.016).

Data presents in table 6 shows that,49.32% coronary artery disease patients hadmoderate depression and 36.77% patients hadsevere depression, 11.21% patients had mild depression

and 2.69%patients had minimal depression.

Data presents in table7shows that the mean score of depression of coronary artery disease patients were 25.56 with a calculated median of 27 which can be interpreted as the obtained data were normally distributed.The table also depicts that the score of anger of coronary artery disease patients ranging from 7-43 with SD ±6.82 which can be interpreted as the obtained data were moderately dispersed with negative skewness (-0.64).

Findings related to association of anger with demographic variables

Chi square computed between demographic variables and anger of the coronary artery diseased patients had no association at 0.05 level of significance.

Findings related to association of depression with demographic variables

Chi square computed between the Marital status of coronary artery disease patients and depressionwas 6.10.The calculated chi square value wasmore than the tabulated value at 0.05 level of significance. Thus the computed chi-square value was statistically significant at 0.05 level of significance. hence it can be inferred that there was significant association between marital status of coronary artery disease patients with their depression.

Chi square computed between the duration of illness of coronary artery disease patients and depressionwas 8.92.The calculated chi square value was more than the tabulated value at 0.05 level of significance. Thus the computed chi-square value was statistically significant at 0.05 level of significance. Hence it can be inferred that there was significant association between duration of illness of coronary artery disease patients with their depression.

Table 1 Frequency and percentage distribution of coronary artery disease patients by age (in years), sex and educational status.

n = 223

Demographic variables	Frequency	Percentage (%)
Age group (in years)		
30-50	141	63.22
>50	82	37.21
Sex		
Male	132	59.20
Female	91	40.8
Educational status		
No formal education	7	3.13
Below secondary	115	51.57
Secondary &above	101	45.30

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Variable	Obtained range	Mean	Median	SD
Anger	7-40	22.04	22	7.239

Minimum score= 0   Maximum score =63

Table 2 Frequency and percentage distribution of coronary artery disease patient by marital status, occupational status, type of family.

n = 223

Demographic variable	Frequency	Percentage (%)
Marital status		
Married	165	73.99
Unmarried	41	18.39
Widow	17	7.62
Occupational status		
Employed	178	79.82
Unemployed	32	14.35
Pension Holder	13	5.83
Type of family		24.22
Joint family	54	75.78
Nuclear family	169	

Table 3 Frequency and percentage distribution of coronary artery disease patient by monthly per capita income and duration of illness.

n = 223

Demographic variable	Frequency	Percentage (%)
Monthly per capita income		
I	3	1.34
II	40	17.93
III	121	54.26
IV	56	25.12
V	3	1.35
Duration of illness		
<6 month	100	44.85
≥6month	123	55.15

Table 4 Frequency and percentage showing the level of anger of coronary artery disease patients.

n = 223

Level of anger	Frequency	Percentage
Minimal clinical anger	25	11.21
Mild clinical anger	65	29.14
Moderate clinical anger	90	40.35
Severe clinical anger	43	19.28

Table 4 Findings related to mean, median, standard deviation of anger of coronary artery disease patients.

n = 223

Table 5Frequency and percentage showing the level of depression of coronary artery disease patients.

Level of depression	Frequency	Percentage
Minimal depression	6	2.69
Mild depression	25	11.21
Moderate depression	110	49.32
Severe depression	82	36.77

Table 6 Findings related to mean, median, standard deviation of depression of coronary artery disease patients.

Variable	Obtained range	Mean	Median	SD
Depres-sion	7-43	25.56	27	6.82

n = 223

Minimum score= 0   Maximum score =63

Table 7 chi square test of association between depression and selected demographic variable in terms of marital status, occupation and type of family

n =223

	Depression		
Variables	<Median	≥Median	χ^2
Marital status			
Married	76	89	6.10*
Unmarried	20	21	
Widow	8	9	
Occupation			
Self employed	84	94	
Unemployed	14	18	0.247
Pension holder	6	7	
Type of family			
Joint family	27	27	0.321
Nuclear family	77	92	

(df 1) = 3.84 p>0.05 (df 2) =5.99P<0.05*

Table 8chi square test of association between depression and selected demographic variable in terms of monthly income and duration of illness

n=223

	Depression		
Variables	<Median	≥Median	χ^2
Monthly income			

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<IV	72	92	1.85
≥IV	32	27	
Duration of illness			
<6months	40	60	8.92*
≥6months	64	59	

(df 1) = 3.84 p<0.05*

DISCUSSION

In the present study 90(40.35%) patients were felt moderate clinical anger, 65(29.14%) patients were felt mild clinical anger, 43(19.28%) patients felt severe clinical anger and 25(11.21%) patients felt minimal clinical anger. With this data calculated mean of anger of those patients were 22.04 and standard deviation was 7.239. These findings were supported by a cross sectional study, "The relationship between hostility and anger with coronary heart disease" which was conducted by Bahman Sadeghi, Hamideh Mashalchi et al. (2020). The findings revealed that among 183 male patients average score of anger was 25.30 and SD was 8.85. Out of 119 female patients calculated average score of anger was 26.78 and SD was 7.69.[7]

In the present study 110 (49.32%) coronary artery disease patients hadmoderate depression and 82 (36.77%) patients hadsevere depression, 25(11.21%) patients had mild depression and 6 (2.69%) patients had minimal depression.

These findings were supported by a descriptive study,assessment of coronary heart disease and depression. which Karina W. Davidson conducted (2012). According to the results, up to 47% of CHD patients report having depressive symptoms, and up to 20% of patients fit the criteria for a serious depressive illness.[8]

In contrast a descriptive cross-sectional study, "Anxiety and Depression among patients with coronary artery disease attending at a Cardiac Centre, Kathmandu, Nepal" which was conducted by (2014). The findings revealed that out of 168 respondents 26.2% exhibited case of depression, while 23.8% had borderline depression.[9]

Limitation

The extent of generalization was constrained since non-probability purposive sampling was utilized.The study was conducted to selected hospitals so the scope of generalization is limited.

CONCLUSION

It is possible to infer from the results of the aforementioned study that patients with coronary artery disease experienced moderate anger and depression. Chi square analysis revealed that there was no meaningful association between certain demographic factors and anger. It was also shown that there was a noteworthy correlation between the duration of illness and the marital status of patients with depression and coronary artery disease.

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