



# TYPE-A PERSONALITY TRAITS AMONG CORONARY ARTERY DISEASE PATIENTS IN SELECTED HOSPITALS, BANGALORE, WITH A VIEW TO DEVELOP INFORMATION BOOKLET

## Authors

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## INTRODUCTION

*“True wisdom comes to each of us when we realize how little we understand about life, ourselves, and the world around us”. (Socrates)*

Throughout history, philosophers and scientists have debated the nature of the relationship between the mind (psyche) and body (soma). There is now a renewed interest in holistic health practices; because it is known that mental processes influence physical well-being and vice-versa.

Personality is an individual's unique pattern of thoughts, feelings and behaviours that persists over time and across situations. Personality can be divided into, Type-A, Type-B and Type-C Personality. Type-A behavior pattern (TABP) is a factor which can increase the stress response in an individual. Type-A behavior is now recognized as an established risk factor in coronary artery disease. Type-A personality, a concept developed by cardiologists, is an action emotion complex exhibited by individuals who engage themselves in a chronic struggle to achieve more and more in less time and usually in the face of opposition from people and events in their environment.

In Stressful situation, People with Type-A Personalities react emotionally and struggle vigorously to achieve the goal. This will cause continuous stressful events stimulate the sympathetic nervous system for fight or flight response. These responses produce change in the physiological function of the heart and blood vessels and leads to risk for psychosomatic disorders mainly Coronary Artery Disease, Essential hypertension, Migraine and Mitral valve prolapse. Among these, Coronary Artery Diseases is drastic and

most serious condition.

The Concept of a link between personality type and coronary artery disease has a long history. Type-A Personality is described as always full steam ahead that was the reason representing and recommending the Coronary Artery Disease in these personalities. So this personality behavior pattern called as Coronary Personality by the cardiologist in olden days. **Statement of Problem**

“A study to assess the Type-A Personality traits among Coronary Artery Disease(CAD) patients in selected hospitals, Bangalore, with a view to develop Information Booklet”.

### **Objectives**

1. To assess the level of Type-A Personality traits among Coronary Artery Diseasepatients.
2. To associate the Type-A Personality with selected Socio-Demographic Variables.
3. To develop information booklet based on the findings.

### **Operational Definition**

1. **Assess:** Measure the level of Type-A personality traits among Coronary Artery Disease patients.
2. **Type-A Personality/Type-A Behaviour:** Type-A behavior is defined as set of behavior which includes extremely competitive, achievement oriented, sense of time urgency, difficult to relax, impatience and angry prone.
3. **Coronary Artery Disease:** Coronary Artery Disease is the condition which affecting the flow of blood in the coronary artery of the heart, it may be due to atherosclerosis which leads to sudden life threatening heart attacks.
4. **Patient:** Person who are diagnosed as coronary artery disease and admitted in inpatient department.

### **Assumptions**

1. Type- A personality traits may produce continuous stress to the person and may increase the risk of episodes of coronary events among the CAD patients.
2. The socio demographic variables may influence Type-A personality traits.
3. Behaviour modification may minimize the recurrent episodes of Coronary Artery Disease.

## Conceptual frame work

The conceptual framework for the study is based on **Health Belief Model**. Beliefs related to health are person's ideas and attitude about health and illness".

## Delimitations

1. Data collection is limited with tool which is prepared by the investigator.
2. The sample size is limited to 100 Coronary Artery Disease patients.

## Literature Review

The review was organized under the following headings.

1. Studies related to Type-A Personality and Coronary Artery Disease
2. Studies related to behavioural modification of Coronary Artery Disease patients.

## Variable

### Study variable

Type-A Personality traits among Coronary Artery Disease.

### Extraneous variable:

Age, Gender, Marital Status, Type of Family, Place of Domicile, Type of Diet, Educational Status, Occupational Status.

### Setting of the study

Setting is the physical location and condition in which data collection takes place. Two hospitals were chosen for data collection namely Sri Sathya Sai Institute of Higher Medical Sciences, Whitefield, Bangalore and Trinity Hospital and Heart Foundation, Basavanagudi, Bangalore.

### Population of the study

The Population is the total group of individual people or things meeting the designated criteria of interest to the researcher. The target population in the present study included Coronary Artery Disease patients (i.e. Myocardial Infarction and Angina Pectoris patients) in selected hospitals, Bangalore

### Sample and sample size

Sample is the process of selecting a portion of population to represent the entire population. Sample size is 100 Coronary Artery Disease patients who fulfilled the required characteristics of population.

## Sampling Technique

Sampling Technique is the process of selecting a group of people or order elements to conduct a study. In this study, convenient sampling technique was adopted.

## Criteria for sample selection Inclusion

### criteria

The study included Coronary Artery Disease patients who were:

1. with Coronary Artery Disease in selected hospital setting.
2. Both Males and Female patients.
3. Coronary Artery Disease patients above 15 years of age.
4. Those who speak only English and Kannada.

### Exclusion criteria

The study excludes who were:

1. Unwilling to participate in study.
2. Not available at the time of data collection.

## Instrument used for the Study

Based on the objectives of the study a structured interview schedule was developed to assess the Type-A Personality traits among Coronary Artery Disease patients. It was considered to be an appropriate instrument to assess the Type-A Personality traits in Coronary Artery Disease patients.

## Description of tool

The instrument used in this study was structure interview schedule. It comprises of two sections

**Section-A** consisted of 8 items related to socio-demographic data of subjects such as age, gender, marital status, type of family, place of domicile, type of diet, educational status and occupational status.

**Section-B** Structured interview schedule consisted of 30 items on Type-A Personality traits. There are positive and negative items included. Positive items are given score of three for strongly agree, two for agree, one for disagree and zero for strongly disagree. Negative items are given score of three for strongly disagree, two for disagree, one for agree and zero for strongly agree.

**Content validity:** Content validity is concerned with the sampling adequacy of the content

are being measured. Content validity of instrument was established by panel of experts comprising psychiatric nurses, clinical psychologist and psychiatrist. The experts were requested to give their opinions and suggestions regarding the relevance of tool for further modification of items. Their expert comments and suggestions were incorporated in designing the final tool for the study in consultation with guide and statistician for finalization of the tool.

**Reliability of tool:** The reliability of tool was established by testing the internal consistency. The internal consistency was assessed by using split half technique. co-efficient correlation was found ( $r = 0.816$ ) which indicated the high degree of reliability of the tool.

#### **Ethical Consideration**

- Permission was obtained from Director, SathyaSai Institute of Higher Medical Sciences, Whitefield & General Manager, Trinity Hospital and Heart Foundation, Basavanagudi, Bangalore.
- Consent was obtained from the samples and assured that confidentiality would be maintained.
- The subjects were informed that their participation was voluntary, had the freedom to withdraw from the study.

#### **Pilot Study**

After having obtained formal administrative approval from the higher authorities of Vydhehi Institute of Medical Sciences, Whitefield, Bangalore, a pilot testing with 10 samples was done. The investigator did not face any significant problems and found the study to be feasible.

#### **Procedure for Data collection**

A formal written permission was obtained from concerned authorities of selected hospitals to conduct the study in the hospital setting. Before interview, the purpose of the interview was explained to the respondents with self-introduction and written consent of the respondents were sought. The investigator and the subject were seated in a quiet place facing each other and then conducted the structured interview schedule to get response for each item regarding Type-A Personality assessment. The data collection took average time of about 15–20 minute and responses by the respondents were marked down by investigator immediately. Giving thanks to the respondents, the data collection procedure was terminated. Thus the Type-A personality traits of 100 Coronary Artery Disease

patients was assessed.

### Plan for data analysis

The data obtained was analyzed on the basis of objectives and assumption of the study. The data obtained was analyzed by using descriptive and inferential statistical tests. Organizing the data in a master sheet and Microsoft excel sheet. Computation of frequencies and percentage. Use of descriptive and inferential statistics.

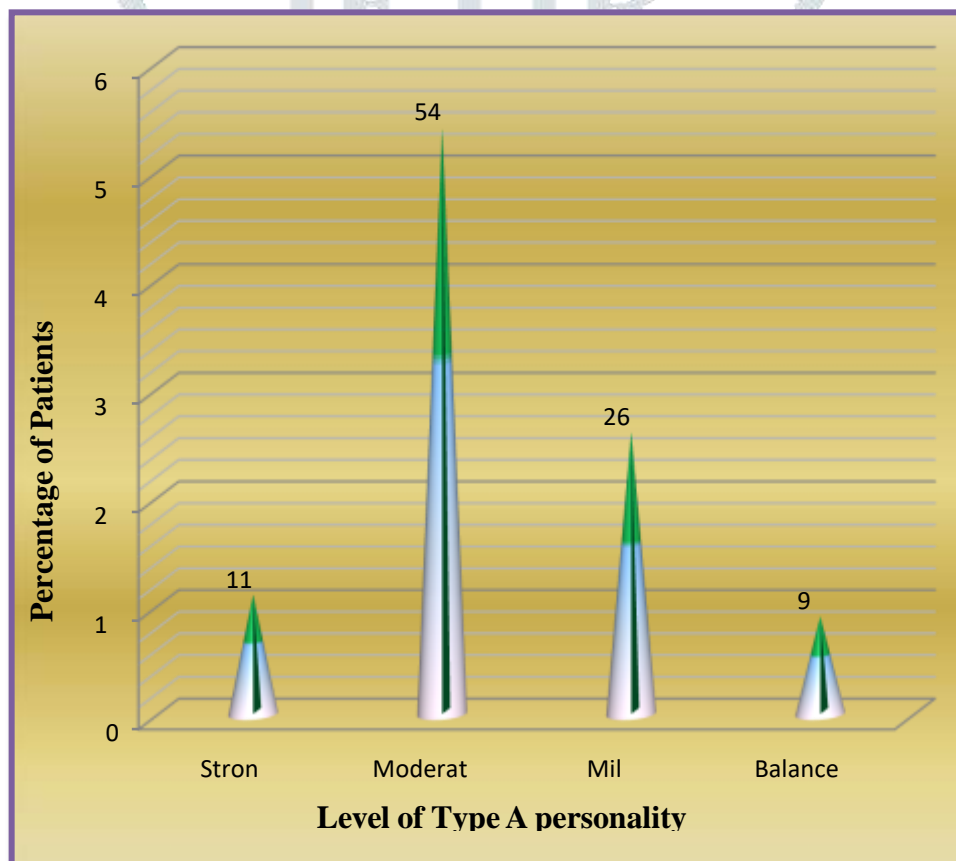
### Major Findings of the study

- The findings revealed based on 100 Coronary Artery Disease patients that, Highest percentage of the respondents (29%) were in the age group between 46-55 years.
- Most of respondents (88%) were males.
- Majority of respondents (85%) were married.
- Most of respondents (47%) were from the nuclear family.
- Majority of respondents (53%) comes under rural area.
- Almost of the participants (91%) having the mixed type of diet.
- Majority of respondents (26%) had graduation.
- Majority of subjects (29%) belong to self-employed/business.
- The findings revealed that out of 100 coronary artery disease patients, 11% had Strong Type-A Personality, 54% had Moderate Type-A Personality, 26% had Mild Type-A Personality and 09% had Balanced Personality.
- There was significant association between Strong Type-A Personality, Moderate Type-A Personality, Mild Type-A Personality and selected socio-demographic variable such as Age, Gender.
- But there was no significant association between the Strong Type-A Personality, Moderate Type-A Personality, Mild Type-A Personality and Socio-demographic variable such as Marital Status, Type of Family, Place of domicile, Type of Diet, Educational Status and Occupational Status.

**Table :1. Level of Type-A Personality traits among Coronary Artery Disease Patients.**

SL. No.	Level	Range	Frequency	Percentage
1	Strong Type-Apersonality	68-90	11	11
2	Moderate Type-A personality	45-67	54	54
3	Mild Type-A personality	23-44	26	26
4	Balanced personality	0-22	09	09

Table- 1 indicates that, out of 100 respondents the majority of the respondents 54(54%) belongs to moderate Type-A Personalities, 26(26%) were mild Type-A Personalities, 11(11%) were strong Type-A Personalities and 09(9%) belongs to balanced Personalities.



**Figure-1: Cone diagram showing the level of Type-A Personality traits among Coronary Artery Disease patients.**

**Findings related to association between Type-A personality and selected socio-demographic variable.**

**Association of Type-A Personality with age group.**

n=91

Age Group (in years)	Strong		Moderate		Mild		df	Table value	$\chi^2$	Inference
	n	%	n	%	n	%				
15-25	0	0	1	1.9	0	0				
26-35	3	27.3	16	29.6	0	0				
36-45	5	45.5	13	24.1	8	30.8	5	13.24	13.24	Significant
46-55	2	18.2	10	18.5	12	46.2				
56-65	1	9.1	12	22.2	5	19.2				
Above 65	0	0	2	3.7	1	3.8				
Total	11	100	54	100	26	100				

Level of significance, P=0.02 Table-2

shows that, there is significant association found between Strong Type-A Personality, Moderate Type-A Personality and Mild Type-A Personality with age group. The chi-square result 13.24 showing significant association between Type-A Personality and age group. The hypothesis is tested, alternative hypothesis is accepted at 0.02 level of significance.



**Association of Type-A Personality with Gender.**

n=91

Gender	Strong		Moderate		Mild		df	Table Value	$\chi^2$	Inference
	n	%	n	%	n	%				
Male	1	100	52	96.3	22	84.6	1	7.17	7.17	Significant
Female	0	0	2	3.7	4	15.4				
Total	11	100	54	100	26	100				

Level of significance=0.007 Table-3

shows that, there is significant association found between Strong Type-A Personality, Moderate Type-A Personality and Mild Type-A Personality with Gender. The chi-square result 7.17 shows that, there is significant association found between Type-A Personality and Gender. The hypothesis is tested, alternative hypothesis is accepted at 0.007 level of significance.

**Association of Type-A Personality with Marital Status.**

n=91

Marital Status	Strong		Moderate		Mild		df	Table Value	$\chi^2$	Inference
	n	%	n	%	n	%				
Married	8	72.7	48	88.9	21	80.8	3	7.81	4.06	Not Significant
Single	3	27.3	4	7.4	2	7.7				
Widower	0	0	1	1.9	2	7.7				
Divorced/	0	0	1	1.9	1	3.8				
Separated	0	0	1	1.9	1	3.8				
Total	11	100	54	100	26	100				

Level of significance,  $P > 0.05$  Table-4

shows that, there is no significant association found between Strong Type-A Personality, Moderate Type-A Personality and Mild Type-A Personality with Marital Status. The chi-square test result 4.06 shows that, there is no significant association found between Type-A Personality and Marital Status. The hypothesis is tested, alternate hypothesis is rejected and null hypothesis is accepted at 0.05 level of significance.

#### Association of Type-A Personality with Type of Family

n=91

Type of family	Strong		Moderate		Mild		df	Table Value	$\chi^2$	Inference
	n	%	n	%	n	%				
Nuclear	7	63.6	27	50.0	11	42.3	2	5.99	3.77	Not significant
Joint	4	36.4	20	37.0	14	53.9				
Extended	0	0	7	13.0	01	3.8				
Total	11	100	54	100	26	100				

Level of significance,  $P > 0.05$

Table-5 shows that, there is no significant association found between strong Type-A Personality, Moderate Type-A Personality and Mild Type-A Personality with type of family. The chi-square test result 3.77 shows that, there is no significant association between Type-A Personality and type of family. The hypothesis is tested, alternate hypothesis is rejected and null hypothesis is accepted at 0.05 level of significance.

**Association of Type-A Personality with Place of Domicile.**

n=91

Place of Domicile	Strong		Moderate		Mild		df	Table Value	$\chi^2$	Inference
	n	%	n	%	n	%				
Urban	6	54.5	24	44.4	11	42.3	1	3.84	2.34	Not Significant
Rural	5	45.5	30	55.6	15	57.7				
Total	11	100	54	100	26	100				

Level of significance,  $P > 0.05$  Table-6

shows that, there is no significant association found between Strong Type-A Personality, Moderate Type-A Personality and Mild Type-A Personality with Place of Domicile. The chi-square result 2.34 shows that, there is no significant association found between Type-A Personality and Place of Domicile. The hypothesis is tested, alternate hypothesis is rejected and null hypothesis is accepted at 0.05 level of significance.

**Association of Type-A Personality with Type of Diet.**

n=91

Type of Diet	Strong		Moderate		Mild		df	Table Value	$\chi^2$	Inference
	n	%	n	%	n	%				
Vegetarian	2	18.2	6	11.1	1	3.8	2	5.99	0.032	Not Significant
Mixed	9	81.8	48	88.9	25	96.2				
Total	11	100	54	100	26	100				

Level of significance,  $P > 0.05$  Table-7

shows that, there is no significant association found between Strong Type-A Personality, Moderate Type-A Personality and Mild Type-A Personality with Type of Diet. The chi-square test result 0.032 shows that, there is no significant difference found between Type-A Personality and Type of Diet. The hypothesis is tested, alternate hypothesis

is rejected and null hypothesis is accepted at 0.05 level of significance.

### Association of Type-A Personality with Educational Status

n=91

Educational Status	Strong		Moderate		Mild		df	Table Value	$\chi^2$	Inference
	n	%	n	%	n	%				
Illiterate	0	0	1	1.9	0	0	5	11.07	7.27	Not Significant
Primary Education	2	18.2	8	14.8	5	19.2				
Secondary Education	1	9.1	7	13.0	6	23.1				
Higher Secondary Education	0	0	7	13.0	7	26.9				
PUC	2	18.2	16	29.6	3	11.5				
Graduate	6	54.5	15	27.8	5	19.5				
Total	11	100	54	100	26	100				

Level of significance- $p > 0.05$  Table-8

shows that, there is no significant association found between Strong Type-A Personality, Moderate Type-A Personality and Mild Type-A Personality with Educational Status. The chi-square test result 7.27 shows that, there is no significant association found between Type-A Personality and Educational Status. The hypothesis is tested, alternate hypothesis is rejected and null hypothesis is accepted at 0.05 level of significance.

**Association of Type-A Personality with Occupational Status.**

n=91

Occupational Status	Strong		Moderate		Mild		df	Table Value	$\chi^2$	Inference
	n	%	n	%	n	%				
Government	2	18.2	13	24.1	4	15.4	4	9.49	7.59	Not Significant
Private	4	36.4	18	33.3	4	15.4				
Self-employed/Business	5	45.5	14	25.9	8	30.8				
Agriculture	0	0	8	14.8	6	23.1				
Housewife	0	0	1	1.9	4	15.4				
Total	11	100	54	100	26	100				

Level of significance,  $P > 0.05$  Table-9

shows that, there is no significant association found between Strong Type-A Personality, Moderate Type-A Personality and Mild Type-A Personality with Occupational Status. The chi-square test result 7.59 shows that, there is no significant association found between Type-A Personality and Occupational Status at 0.05 level of significance.

## **Nursing implications**

### **Nursing Education**

- Nurse educators can educate students about Type-A Personality and its link with psychosomatic disease especially Coronary Artery Disease such as myocardial infarction and angina pectoris.
- Moreover, nurse educators can teach Type-A Personality modification techniques and motivate nursing students to include these techniques in health education programme.

### **Nursing Practice**

- Nurses working in hospital and community can play an important role in giving health education on Type-A Personality as a risk factor for Coronary Artery Disease.
- Special emphasis needed to be given to promote Type-A Personality modification, which will help to prevent recurrent attacks of myocardial infarction and angina pectoris.

### **Nursing Administration**

- The nursing administrator should organize in service education programme to nursing personnel and allied paramedical regarding Type-A Personality as a risk factor for Coronary Artery Disease.
- The nursing administrator working in hospital and community setting should take up keen interest in developing awareness among Coronary Artery Disease patients regarding Type-A Personality and its link with Coronary Artery Disease.

### **Nursing research**

- Data from this study offers nurses new insights into understanding the Type-A Personality as a risk factor for coronary artery disease patients.
- The nurse researchers can motivate nurses to do more research in this aspect.

### **Recommendations**

- ❖ A study on the same aspects can be conducted on large sample for widergeneralization.
- ❖ A comparative study can be conducted between Type-A Personality and Type-B Personality among coronary artery disease patients.
- ❖ A Comparative study can be conducted between Type-A Personality and Type-D

Personality.

- ❖ Experimental studies may be conducted to evaluate the effectiveness of Type-A modification techniques.

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