



## Web-Based Questionnaires: To Assess the Knowledge on Prevention of Coronary Artery Knowledge on Prevention of Coronary Artery Disease among Adolescents in Selected Higher Secondary Schools at Vadodara

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### ABSTRACT

*Coronary artery disease in Adolescence caused by commonly initiate or involve in unhealthy behaviours, such as junk food, smoking, alcohol consumption, physical inactivity, over weight and tobacco use. Currently there is a renewed awareness that the determinants of chronic diseases in later life and healthy behaviour are well established by the end of adolescent period. The importance of atherosclerotic risk factors in children is increasingly being emphasized. Unhealthy lifestyle and behaviour affect adolescent health. Due to lack of awareness in adolescent is more high risk of coronary artery disease. This study was conducted a web based questionnaires to assess the knowledge on prevention of coronary artery disease among adolescent in selected higher secondary schools at Vadodara. A descriptive- exploratory research design was selected where 100 samples are selected by non-probability- convenient sampling technique. Data was collected by web based questionnaires. The result show that knowledge score range between 5-14, median score 9, mean knowledge score was 9.38 with standard deviation 2.469 and mean percentage was 32.34 %. p- value <0.05 level of significance. hence the knowledge of adolescent's had majority 65% had inadequate knowledge and 35% had moderate knowledge. Study concluded that majority of adolescent had inadequate knowledge of coronary artery disease.*

**Keywords:** coronary artery disease (CAD), knowledge, adolescent children, prevention, assessment.

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### INTRODUCTION

CAD is also called Coronary arteriosclerosis. Coronary artery disease (CAD) is the most common type of heart disease. Hardened and narrowed. This is due to the build-up of cholesterol. As it grows, less blood can flow through the arteries. As a result, the heart muscle can't get the blood or oxygen it needs and this will lead CAD [1].

The progressive atherosclerotic process begins in childhood and develops gradually under the influence of conventional risk factors including obesity, hypertension, dyslipidaemia, cigarettesmoking, family history of premature coronary artery disease, stress. Around 22 % of the Indian population falls into the adolescent age group of 10-19 years. A focus on children and adolescents in the primary prevention of health risks and disorders such as hypertension and cardio vascular diseases have been suggested in many reports.

To assess the Knowledge on Prevention of Coronary Artery Disease among adolescent Selected Higher Secondary Schools and Association Between Pre – Test Knowledge on Prevention Score of Coronary Artery Disease Among with Selected Demographic Variable.

### MATERIAL AND METHODS

A study design selected for this was descriptive exploratory research design. Participants were chosen through non- probability convenient Sampling Technique. A total 100 adolescent school going childrens were was selected as a participant. In the data collection tool socio-demographic Performa, A structured knowledge questionnaire regarding coronary artery disease among adolescents to assess the knowledge of adolescents were used. The tool was validated by clinical expertise and experienced teachers. In the data collection procedure, the knowledge was assessed.

**RESULT AND DISCUSSION**

Finding of socio-demographic variables show that age majority of adolescent belongs from the age group of 14-16 years that are 53%, were 47% from age group 17-19 years of age. 67% are male and 33% were female adolescent. 91% belongs to Hindu and 9% belongs to Muslim, majority 70% adolescent are from joint family and 30% from nuclear family. Majority of adolescent living in rural 65% were 35% were residing in urban area.

Finding related to Knowledge on Prevention of Coronary Artery Disease Among Adolescent in Selected Higher Secondary Schools revealed that majority 65% had inadequate knowledge and 35% had moderate knowledge with obtained score range between 5-14, median score 9, mean knowledge score was 9.38 with standard deviation 2.469 and mean percentage was 32.34 %.

Finding association between knowledge on prevention of coronary artery disease among adolescent in selected higher secondary schools and selected socio-demographic variables which was tested by using chi-square test. Result revealed that type of family and residence was found significant association at  $p < 0.05$  with knowledge on prevention of coronary artery disease among adolescent in selected higher secondary schools but age, gender and religion were non-significant.

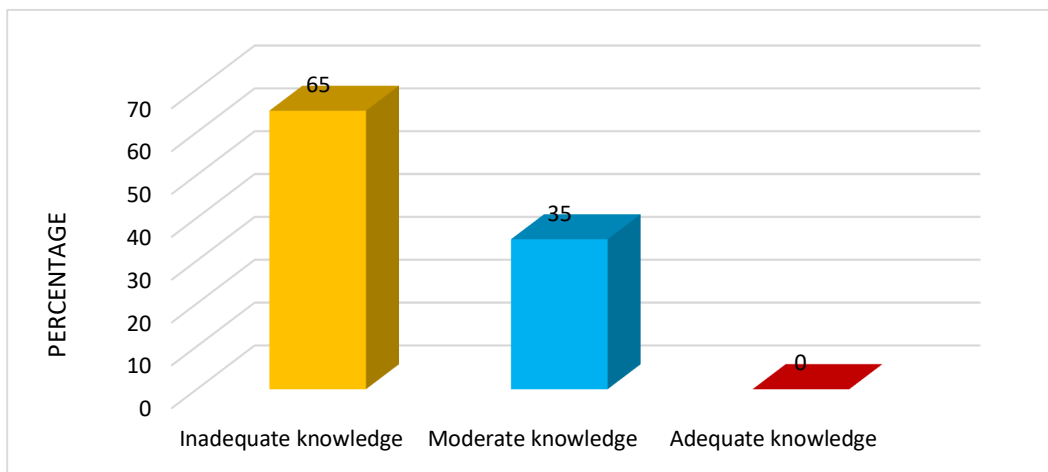


Fig.1: Distribution of Knowledge on Prevention of Coronary Artery Disease

**Table 1: Association between Knowledge on Prevention of Coronary Artery Disease N=100**

| S. No | Socio-Demographic Variable | Knowledge  |          | $\chi^2$ value | df | p-value             |
|-------|----------------------------|------------|----------|----------------|----|---------------------|
|       |                            | Inadequate | Moderate |                |    |                     |
| 1     | Age in years               |            |          | 0.424          | 1  | 0.515 <sup>NS</sup> |
|       | a. 14-16 years             | 36         | 17       |                |    |                     |
|       | b. 17-19 years             | 29         | 18       |                |    |                     |
| 2     | Gender                     |            |          | 0.140          | 1  | 0.741 <sup>NS</sup> |
|       | a. Male                    | 44         | 23       |                |    |                     |
|       | b. Female                  | 21         | 12       |                |    |                     |
| 3     | Religion                   |            |          | 0.710          | 1  | 0.400 <sup>NS</sup> |
|       | a. Hindu                   | 58         | 33       |                |    |                     |
|       | b. Muslim                  | 7          | 2        |                |    |                     |
| 4     | Type of family             |            |          | 7.814          | 1  | <b>0.005*</b>       |
|       | a. Nuclear                 | 17         | 19       |                |    |                     |
|       | b. Joint                   | 48         | 16       |                |    |                     |
| 5     | Residence                  |            |          | 5.325          | 1  | <b>0.021*</b>       |
|       | a. Urban                   | 28         | 7        |                |    |                     |
|       | b. Rural                   | 37         | 28       |                |    |                     |

\* $p < 0.05$  level of significance

NS- Non significant

Finding association between knowledge on prevention of coronary artery disease among adolescent in selected higher secondary schools and selected socio-demographic variables which was tested by using chi-square test. Result revealed that type of family and residence was found significant association at  $p < 0.05$  with knowledge on prevention of coronary artery disease among adolescent in selected higher secondary schools but age, gender and religion were non-significant.

A similar study was conducted in Kerala (2018) revealed that adolescents were not aware atherosclerosis of the heart disease. They said school children had lack adequate knowledge regarding cardiovascular risk

factors, taking all the evidence into consideration. The mean age of adolescents was 12.29±0.5 years. Majority of the adolescents (97.2%) had no prior information regarding CAD.<sup>3</sup>

#### CONCLUSION AND RECOMMENDATION

The Study concluded that the knowledge score of participants were adolescent's had majority 65% had inadequate knowledge and 35% had moderate knowledge.

This type study should be conducted on large sample from different places to generalized broadly. The same study can be done at different setting. Similar study can be done in that assess the knowledge on prevention of coronary artery disease. Study should be done on management of non-modifiable factor for coronary artery disease.

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