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RESEARCH ARTICLE

“Knowledge, Attitude and Practice Regarding Risk Factors of Coronary Heart Disease among Students Pursuing Technical Education in Belagavi City”

Purushottam Niraula¹, Ashwini .B. Narasannavar², Mubashir Angolkar³

1. Post graduate, Department of Public Health, KLEU, J.N. Medical College, KLE University, Belagavi, Karnataka, India.
2. Assistant Professor, Department of Public health, J.N. Medical College, KLE University, Belagavi, Karnataka, India.
3. Associate Professor and Head, Department of Public Health, J.N. Medical College, KLE University, Belagavi, Karnataka, India.

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*Corresponding Author

Purushottam Niraula

Abstract

Introduction: Coronary Heart Disease is the major cause of mortality globally. It is estimated that by 2020, coronary heart disease (CHD) shall be a major cause of mortality in the developing countries.

Objectives: To assess knowledge, attitude, and practice regarding risk factors of coronary heart disease among students pursuing technical, education in Belagavi city.

Materials and Methods: A community based cross-sectional study was carried out among 400 students of three polytechnic college using pretested, self administered questionnaire. Proportionate based random sampling technique was used. Ethical clearance, informed consent and assent was taken from the concerned authority and person. Data was analyzed using appropriate statistical tools in SPSS- 16. Data was presented on tabular, graphical and narrative form as per necessity.

Results: Majority of the students 47.43% stated that smoking is a risk factor for CHD. About 14.3% of the students agreed on the statement that they are at risk of getting CHD. 6.2% of the students were consuming tobacco and only 1.8% was consuming alcohol.

Conclusion:

Only 24.25% of the students were aware about CHD and 27.84% of them know about the risk factors of CHD.

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INTRODUCTION

Coronary Heart Disease (CHD) is the major cause of mortality globally.¹ The burden of chronic diseases and their risk factors is increasing day by day worldwide, mainly in low and middle income countries. Projections indicated that 35 million out of the 58 million worldwide in 2005 were expected deaths due to chronic, non communicable diseases.² A report by WHO showed that the disability-adjusted life years lost due to CHD will be double in males compared to females in India by 2020. It has also been found that prevalence of CHD is more in urban populations and higher in south Indian states. In the twentieth century it was reported that CHD prevalence increased to 10-12% in the urban areas while it increased to only 4-5% in the rural areas.³ much of the lifetime risk for developing heart

disease begins from childhood which is due to a poor life style habits. The environment in the mother's womb and her life style influences the future risk for the embryo or the fetus to develop heart disease as reported by Leon.⁴

As there is an increasing risk to develop coronary heart disease in adolescence and in young adults due to varying life styles, this study was undertaken to assess the knowledge, attitude and practice related to coronary heart disease risk factors and will sensitize this population with regard to healthy habits and coronary heart disease. This study will also help to develop a strong educational program which will aid in the prevention of coronary heart disease based on the knowledge of the students.

MATERIALS AND METHODS

A cross- sectional study was conducted to know the knowledge attitude and practice of risk factors of coronary heart disease among polytechnic colleges of Belagavi city between February to January 2015. 50% prevalence was considered and was calculated by the below mentioned formula, $n = 4pq/d^2$. Sample size came to 400, after considering an allowable error of 5%.

Sampling technique: Proportionate random sampling technique was applied to select the sample from three colleges. **Data collection procedure:** Data was collected using a pretested and predesigned self administered questionnaire. Information on socio demographic characteristics was obtained. Modified BG Prasad classification was followed for socio economic status

Inclusion criteria: Students present at the time of data collection.

Exclusion criteria: Those who did not gave consent and assents.

Ethical consideration was obtained from Institutional Ethics Committee (IEC) of J.N.M.C, KLE University. Written informed consent from principal of three respective schools was taken and assent from the students was obtained.

Statistical analysis was expressed in frequency and percentage.

RESULTS

Table 1: A total of Socio-demographic characteristics of the participants (n=400)

Variables	Frequency	Percentage (%)
Age		
15-18	234	58.5
19-22	155	38.75
23-26	11	2.75
Sex		
Male	223	55.8
Female	177	44.2
Education (Semester)		
1 st	57	14.25
2 nd	70	17.5
3 rd	65	16.25
4 th	89	22.25
5 th	64	16
6 th	55	13.75
Religion		
Hindu	359	89.8
Muslim	34	8.5
Christian	1	0.25
Others	6	1.5
Type of family		

Nuclear	253	63.25
Joint	115	28.75
Extended	32	8
Socio-economic status		
Not mentioned	57	14.25
Class I	39	9.75
Class II	92	23
Class III	115	28.75
Class IV	59	14.75
Class V	38	9.5
Total	400	100

A total of 400 participants were recruited in the study. Among these participants 223 (55.75%) were males and 177 (44.25%) were females and 63.25% were from nuclear family. Recruited participants were of age 15 -26 years. In which majority of participants 58.5% were of age group 15-18 years. (TableNo.1). Majority of participants were Hindu 359 (89.75%), followed by Muslims 34 (8.5%), Christians 1 (0.25%) and 6 (1.5%) belongs to other religion. Majority of the participants, 89 (22.25%) were from 4th semester and 28.75%, participants were from III, socio-economic class (Table 1).

Table 2: Perception of getting CHD by participants

Variables	Frequency	Percentage
Knowledge about CHD		
Yes	97	24.25
No	303	75.75
CHD run within the family		
Yes	24	24.7
No	68	70.2
No response	5	5.1
Perception about CHD		
Strongly agree	9	2.3
Agree	57	14.3
Neutral	91	22.8
Not agree	243	60.6
TOTAL	400	100

Table 2 reveals that Out of the total 400 participants, among 97 responded about 24.25% knew about the coronary heart disease and 24 (24.74%) participants responded CHD does not run within the family. About 243 (60.6%) participants perception of not agree getting the risk of the CHD.

Table 3: Distribution of participants according to their habits and age at initiation

Habits	Frequency (N=400)	Percentage (%)
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Smoking		
Yes	25	6.25
No	375	93.75
Age initiation of smoking		
15-18	24	96
19-22	1	4
Alcohol intake		
Yes	7	1.75
No	393	98.25
Age initiation alcohol		
15-18	6	85.72
19-22	1	14.28

Table 3 reveals that out of the 400 participants, 6.25% participants currently smoked tobacco products. Among them, 24 (96%) initiated smoking at the age of 15 to 18 years and 1(4%) participants initiated smoking of them at the age of 19- 22 . 7 (1.8%) of them consumed alcohol . Out of the 7 participants who were alcohol consumers, 6 (85.72%) of them initiated alcohol at the age of 15 to 18 years and 1(14.28%) of them initiated alcohol at the age of 19 – 22 years.

DISCUSSION

In the present study males were more compared to female participants. A study conducted in Karachi revealed that 62% participants were females and only 38% were males⁵. Majority of the participants were in 4th semester (22.25%) and 58.5% were of age group 15 -18 years 28.75% of the participants belonged to III socio-economic class. A study conducted in pre –university students in a college in Bangalore 89.6% belongs to the middle socioeconomic class, 8.6% and 1.8% from upper and lower socioeconomic classes, respectively.⁶ About 24.7% participants told that CHD run within the family. Study conducted among students in Poland revealed that 75.4% participants said CHD run within the family.⁷

Among total 400 participants, about 2.3% strongly agree for the statement that “I am high risk for getting heart disease” in this age, 14.3% agreed, 22.8% were neutral and 60.6% did not agree with the statement A study conducted among young adults in African Americans revealed that 17% participant strongly agreed with the statement “I am at low risk for a heart attack in this age”. 43.6% Agreed and 39.5% not agreed with the statement. Here as it is done among young adults agreement is more compared to students in our study.⁸ only 6.25% of participants were currently using smoking and 96% initiated tobacco products use at the age of 15 -19 years of age. A study in Visakhapatnam revealed that, 56% were Smoking at the age of 18th, 19th and 20th years which was more than the present study.⁹ about 1.75% of the participant consumes alcohol and 85.72% of the participant started consuming alcohol at the age 15-18 years. A study on Cardiovascular Risk Behavior among Students in Delhi also showed that 28.8% participants consumed alcohol.¹⁰

CONCLUSION

The present study was done to assess the knowledge attitude and practice, regarding risks factors of CHD among students studying in technical colleges. Most of them had poor knowledge about risk factors. They had positive attitude towards they getting the disease. Most of them did not reveal about habits, which was the major risk factors of CHD. These students were unaware about many risk factors related to CHD. Hence there is a need to give health education on risk factors and do interventions to change their behaviors.

LIMITATIONS

The study being a cross-sectional study has several inherent limitations. Students may have not given the actual details about their habits which misinterpret in practice. The measure of physical activity, smoking, alcohol intake and diet intake were based on the self reporting of students. i.e. subjective.

RECOMMENDATION

Health awareness related to the risk factor of Coronary heart disease should be given regularly to the students. Health promotion activities should be encouraged to the students such as eating healthy diet, increase physical activities. Periodic screening for the risk factor of Coronary disease among students should be done. Developing strategies for the prevention and control of risk factors of the coronary heart disease.

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CONFLICT OF INTEREST: None declared.

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