

‘ASSESSMENT OF RISK FACTORS FOR CORONARY ARTERY DISEASES IN EMPLOYEES OF SELECTED EDUCATIONAL INSTITUTES’



MS. MANISHA SHRIKANT GAIKWAD

M.Sc. Medical Surgical Nursing

MR. SHREENATH KULKARNI

M.Sc. Psychiatric Nursing

Associate Professor,

M.K.S.S., Bakul Tambat Institute of Nursing Education, Pune.



ABSTRACT:

In the present study a descriptive exploratory research design was used to achieve the objectives of the study. The study was conducted in five selected educational institutes of Pune city. In the present study the sample comprised of 60 teachers of primary and secondary schools and higher secondary colleges in selected educational institutes of Pune city, a semi structured questionnaire regarding assessment of risk factors of coronary artery diseases was prepared to study the sample. Descriptive and inferential statistics had been used to analyze the data obtained through interviews. This study showed that teachers, based on their prevalence of CAD risk factors, are at increasing risk of CAD.

PROBLEM STATEMENT:

‘Assessment of risk factors for coronary artery diseases in employees of selected educational institutes of Pune city in view to prepare and validate a SIM.’

INTRODUCTION:

The global burden of coronary heart disease (CHD) is rapidly increasing to the effect that it is likely to be the most common cause of disability-adjusted life years (DALY) loss in year 2020 as compared to fifth position in 1990. The major risk factors responsible for the CAD epidemic in India are smoking, high blood pressure, high cholesterol, high saturated fat diet and lack of physical activity. These factors should remain the focus of action in arresting and reversing this epidemic. Since adverse effects of these factors are greater in Indians, the benefits of modifying them are also correspondingly greater.

In India, the prevalence of CHD has been reported at 4% in the rural and 11% in the urban populations. There are several biological, behavioral, psychological and social risk factors that have been well recognized as risk factors for CHD.

Several aspects need to be recognized in this framework. Multiplicative risk arising from a combination of risk factors might help in explaining the recent emergence, and underlie the projected escalation of the CAD epidemic in the developing countries

OBJECTIVES OF THE STUDY

- To assess the risk factors of coronary artery disease among employees in selected educational institutes of Pune city.
- To associate the selected background variables with the risk factors of coronary artery disease among employees in selected institutes.
- To prepare and validate a self instructional module on awareness of risk factors of coronary artery disease.

HYPOTHESIS/ RESEARCH QUESTION

What is the prevalence of risk factors of coronary artery disease in employees of age group of 40-60 years in selected educational institutes of Pune city?

RESEARCH METHODOLOGY

A descriptive exploratory research design was used to achieve the objectives of the study. The study was conducted in five selected educational institutes of Pune city. The samples were teachers between the age group of 40 to 60 years with total sample size of 60. The study was based on simple random sampling technique.

TOOLS AND TECHNIQUES

The tool for the study was prepared by referring to books, internet and related researches. Blue print for the sections was prepared and then the items were finalized. For each section a separate criteria checklist was prepared.

Section I	Baseline Proforma
Section II	Semi-structured questionnaire based on assessment of high risk factors for coronary artery disease
Section III	Anthropometric measurement and investigation.

VALIDITY AND RELIABILITY

The content validity for research tool was done by various experts like medical surgical nurse, Community health nurse, cardiologist and from preventive and social medicine. The suggestions were discussed with the guide and the tool was finalized. Reliability for the tool was calculated by using Cronbac's rank correlation formula.

DATA GATHERING PROCESS

The researcher had given semi structured questionnaire to teachers for tool 1 and tool 2 and took anthropometric measurement for tool 3. Based upon the findings the researcher has prepared the master data sheet as per suggestion given by the statistician.

MAJOR FINDINGS OF STUDY AND DISCUSSION:

The collected data was analyzed under various sections. The analysis was done by using descriptive and inferential statistics. The important findings were as follows:

Section I: Baseline characteristic of employees of selected educational institute.

Average number of teachers was of B.Ed. qualification (45%). Maximum of them (75%) are having income of 20,001-30,000. The sample size contains majority (96.7%) with Hindu religion. Many of the teachers were married (95%) and having nuclear family (71.7%) most of them (50%) having an experience of 11-20 years. Majority of them (41.67%) had reading as most preferred leisure time activity.

Section II: Findings of assessment of high risk factors for coronary artery diseases.

Maximum number of teachers had mild risk factors (62%), many of them had moderate risk factors (28%) and none of them had severe risk factors and 6 of them (10%) did not have any risk factors.

Average no of teachers having family history of acute and chronic medical condition (46.47 %) maximum of them

(90%) are not having high blood sugar level. Minimum of them have investigated serum cholesterol level (18.33%), there was an equal (50%) consumption of vegetarian and non vegetarian diet.

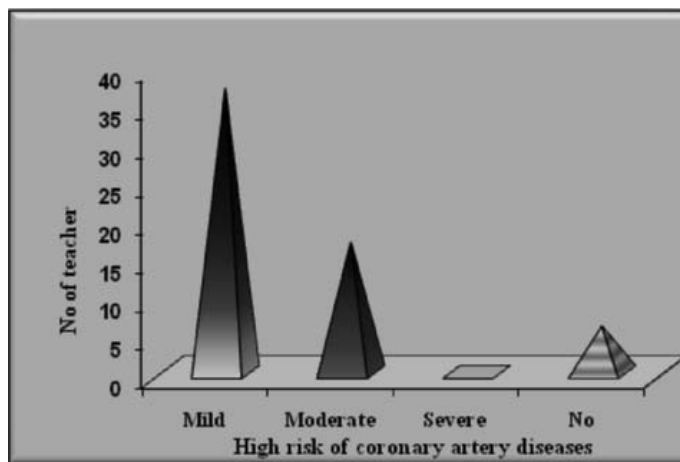


Fig: 4.1: Risk of coronary artery diseases

Many of them (58.33%) experience work related stress most often in their life. Maximum of them (93.33%) do not take alcohol and alcoholic beverages. Many of them are performing exercise (63.33%) in their daily life. Maximum of them (98.33%) are not smoking cigarette.

Maximum number of teachers was having a normal body mass index (BMI) (56.67%) and remaining was having abnormal (43.33%). Male teachers (23.33%) were having abnormal waist hip ratio (WHR) where as only 10% are having normal ratio. For female maximum (35%) were having WHR abnormal and (31.67%) of them has normal WHR.

Maximum of teachers (83.33%) were having more than normal pulse and (16.67%) were having normal pulse. Majority (83.33%) of teachers was having a normal systolic blood pressure and only (16.67%) were having more than normal systolic blood pressure.

Maximum (75%) of teachers were having normal cholesterol and (25%) were having more than normal.

Many of them are having (95%) normal high density lipoprotein (HDL) and remaining (5%) were having abnormal HDL in their blood. Maximum of them (77.5%), (70%) were having normal low density lipoprotein (LDL) and triglyceride, remaining (22.5%), (30%) having abnormal LDL and triglyceride respectively.

Section III: Other findings.

Association between high risk factor and selected demographic variable were checked using Chi-Square test. The following associations were checked:

Association between years of experience, type of family, educational status, marital status, religion with the risk factors of coronary artery disease in study group

For all the above associations there was significant correlation found between the years of experience and educational status with risk factors of coronary artery disease as calculated value that is Chi-Square was greater than table value at 0.05 level of significance other factors were not having significant correlation as calculated value that is Chi-Square was lesser than table value at 0.05 level of significance.

PREPARATION OF SELF INSTRUCTED MODULE:

Based upon the above findings the researcher has prepared module on “prevention and control coronary artery diseases” which reveals in brief, Structure and function of heart, Causes and risk factors of coronary artery diseases, development of coronary artery disease, indicative signs and symptoms of coronary artery disease, investigation for coronary artery diseases, Management and risk prevention for coronary artery diseases.

CONCLUSION

The following conclusion were drawn based upon the data analysis

- Maximum no of teachers were in a mild risk (62%), many of them in moderate risk (28%), and none of them were in a sever risk of getting coronary artery diseases.
- Average no of teachers were having a family history of acute and chronic medical condition. Minimum of them have investigated serum cholesterol level. There is equal consumption of vegetarian and non vegetarian food among study group. Many of them experience work related stress. Many of them perform exercise. Maximum of them are not smoking cigarette and not taking alcohol.
- Average no of sample (43.33%) was having abnormal BMI. Male teachers were having abnormal waist hip ratio (WHR) (23.33%) where as only (10%) are having normal ratio. Maximum numbers of females were having abnormal (35%) and normal (31.67%) WHR.
- Maximum (75%) of teachers were having normal cho-

lesterol and (25%) were having more than normal.

- There was significant correlation found between the years of experience and educational status with risk factors of coronary artery disease.

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