

A Study to Assess the Effectiveness of Planned Teaching Programme on Knowledge and Practice regarding Risk Factors and Prevention of Coronary Artery Disease among II-Year GNM (N) Students Studying in Selected Nursing Schools at Bangalore

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Abstract: This research paper analyses to assess knowledge & the risk factor and prevention of coronary artery disease among the II year GNM (N) students and to association between the knowledge and practice scores with selected demographic variables. All the II year GNM nursing students studying in selected Nursing Schools under the study area of Bangalore constitute the target population for the study. The entire population the sample of the study comprises of 60 using Convenience sampling technique. It was observed from the study that the mean as well as the standard deviation of the knowledge on risk factors and prevention of Coronary artery disease during the pretest is 7.1 and 3.4 and during the posttest it is 19.27 and 2.6. The difference in the mean knowledge score on risk factors and prevention of Coronary artery disease is statistically significant (<0.001). The study shows that the students are having inadequate knowledge on coronary artery disease.

Keywords: Coronary Artery disease, Risk Factor, Prevention Demographic, Significant, Variable

1. Introduction

“To keep the body in good health is a duty... otherwise we shall not be able to keep our mind strong and clear.”

-Buddha

Health is ever changing and has the potential for ranging from high level wellness to extremely poor health. Coronary heart disease is a leading factor causing morbidity and mortality, both in the developing and developed countries around the world. Angina pectoris (Chest pain caused by insufficient blood supply to the heart) and acute myocardial infarction (Heart attack) are the two most common features of coronary heart diseases, also known as coronary artery disease. Coronary artery disease has probably affected human beings throughout history. But it is only in the last century or so that it has emerged as a leading cause of death³. Coronary artery disease (CAD) has been often considered an affluent person's disease. It is caused by easy and sedentary lifestyle, high calorie and high fat diet³

The Kaiser Study showed that hospitalization rate for heart disease among Indian patients was four times higher than the rest of its America. High rates of coronary artery disease have been observed among Indians living in other countries. Indians living in the subcontinent have caught up with high rates observed among Indians living abroad. It is estimated that 60 million Americans have cardiovascular disease, approximately 1/5 of the population. Over 1 million acute myocardial infarctions occur yearly, of which 1/3 are recurrent and almost 20-30% are manifest as sudden death. Cardiovascular disease is the largest cause of out of hospital death. The majority of cardiovascular disease events occur in subjects over 65, the aging of the population in the US

and throughout the world heralds a continuing rise of coronary artery disease prevalence⁵.

According to World Health Organisation (WHO) bulletins, 1.2 million Indians died from heart disease in 1990 and it predicts that by 2010, 100 million Indians will have heart disease (25% of all cardiac patients globally) and by 2020, India will supersede all other nations in terms of CAD prevalence.

Hypothesis

H₁: The mean posttest knowledge and practice scores of II year GNM students regarding risk factors and prevention of coronary artery disease will be significantly higher than their mean pretest knowledge and practice scores.

H₂: There will be significant association between the knowledge and practice scores with selected demographic variables of II year GNM students.

Assumption

- II-year GNM students may have some knowledge regarding the risk factors and prevention of coronary artery disease.
- Planned teaching programme will enhance their knowledge and practice regarding the risk factors and prevention of coronary artery disease.

Delimitation:

- This study is limited to risk factors and prevention of coronary artery disease.
- This study is limited to students studying in II-year GNM course at selected nursing Schools at Bangalore.

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Objective of the study

- To assess the knowledge of II year GNM students regarding the risk factors and prevention of coronary artery disease.
- To identify the practice of II year GNM students regarding the risk factors and prevention of coronary artery disease.
- To evaluate the effectiveness of planned teaching programme on knowledge and practice regarding the risk factors and prevention of coronary artery disease among the II year GNM (N) students.
- To find out the association between the knowledge and practice scores with selected demographic variables

2. Methodology

Research methodology aims at helping the researcher to answer the research questions effectively, accurately and economically, studying how research is done scientifically.

Research Design

The research design in present study was non-experimental using quantitative research approach. Hence in the view of the nature of the problem selected for the present study, pre-experimental using quantitative research approach one group pre test and post test design was considered as an appropriate one. Data was collected, analysed and interpreted knowledge and practice of risk factors and prevention of coronary artery disease.

Research setting

The study was conducted in students selected Nursing School of Bangalore.

Sample and sampling technique

Sample Size: The study originated with a sample of 60 students II year GNM (N) students in selected Nursing School of Bangalore

Sampling technique: Convenience sampling technique was used.

Data collection procedure

Prior to data collection permission was obtained from principal of selected Nursing School of Bangalore.

Pilot Study: The pilot was conducted to list the reliability of the tool. The tool was administered to the six students. The investigator utilizes the convenience sampling technique to select the six students from the total population and the students selected for this study were excluded in the final study.

Period of data collection: The data collection procedure was carried out for a period of six weeks.

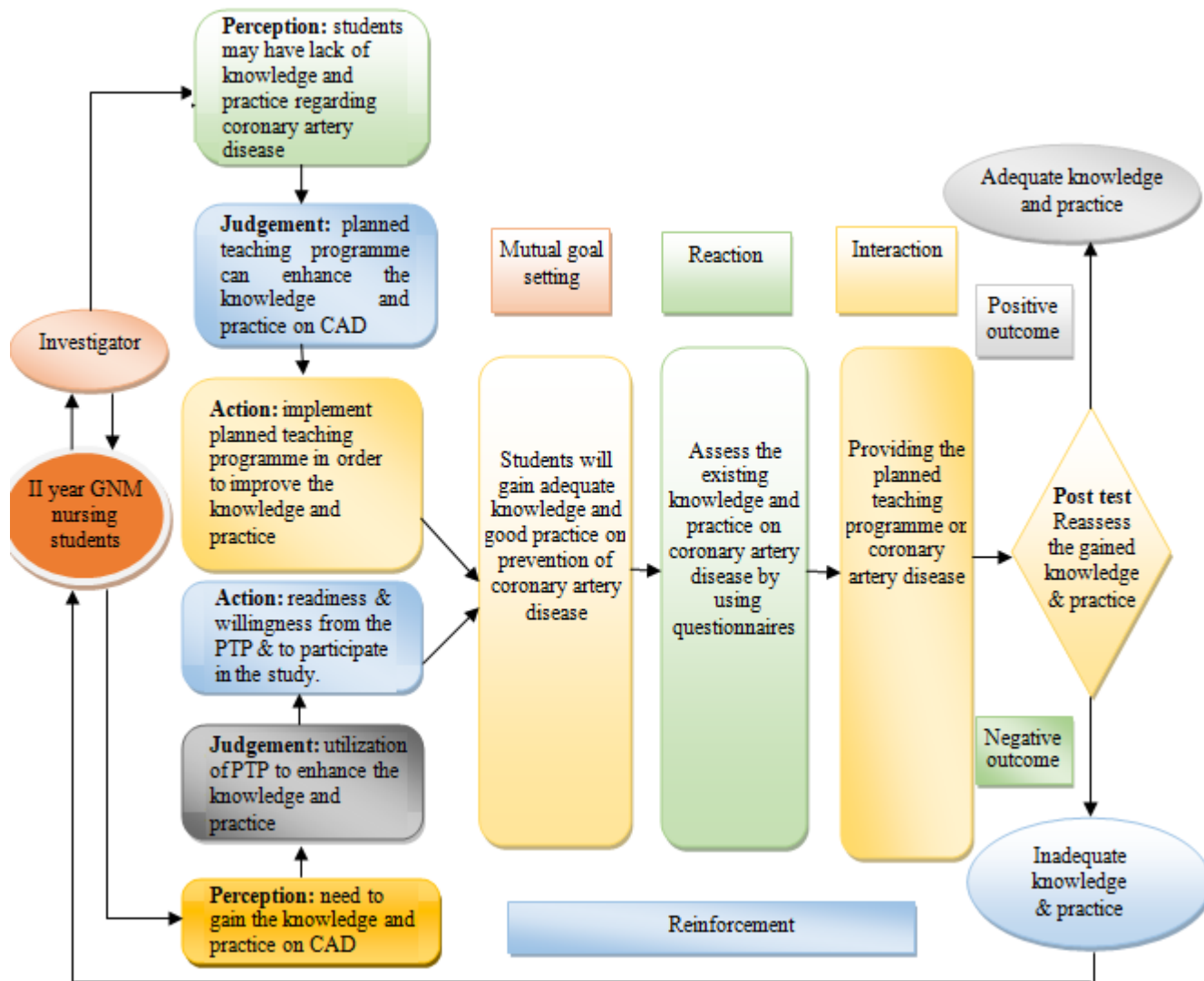
Pre test: Pre test was conducted with help of structured questionnaire and check list for the sixty students in a day from the selected nursing Schools for a period of two weeks.

Post test: Post test was conducted after a period of one week. The same structures questionnaires were used for a period of two weeks to assess the effectiveness of PTP.

Conceptual framework Based on Kings Goal attainment theory

A conceptual framework or model refers to concepts that structure or offer a framework or preposition for conducting research. The main focus of the study is to help the students to gain adequate knowledge on risk factors and prevention of coronary artery disease

The investigator adapted Kings Goal attainment theory as a basis for the conceptual framework, which is aimed to assess the effectiveness of the planned teaching programme on the knowledge and practice among students on coronary artery disease



3. Results

This chapter deals with the quantitative results of the study attempted to assess the knowledge and practice among a sample of 60 students regarding risk factors and prevention of Coronary artery disease among II year GNM (N) students studying in selected Nursing Schools at Bangalore. The collected data were organized, tabulated, analyzed and interpreted by means of tables and graphs under following sections.

- 1) Comparison between Pre and post- test results of the student's knowledge regarding risk factors and prevention of Coronary artery disease
 - It is observed from the present study that the mean as well as the standard deviation of the knowledge on risk factors and prevention of Coronary artery disease during the pretest is 7.1 and 3.4 and during the posttest it is 19.27 and 2.6. The difference in the mean knowledge score on risk factors and prevention of Coronary artery disease is statistically significant (<0.001)

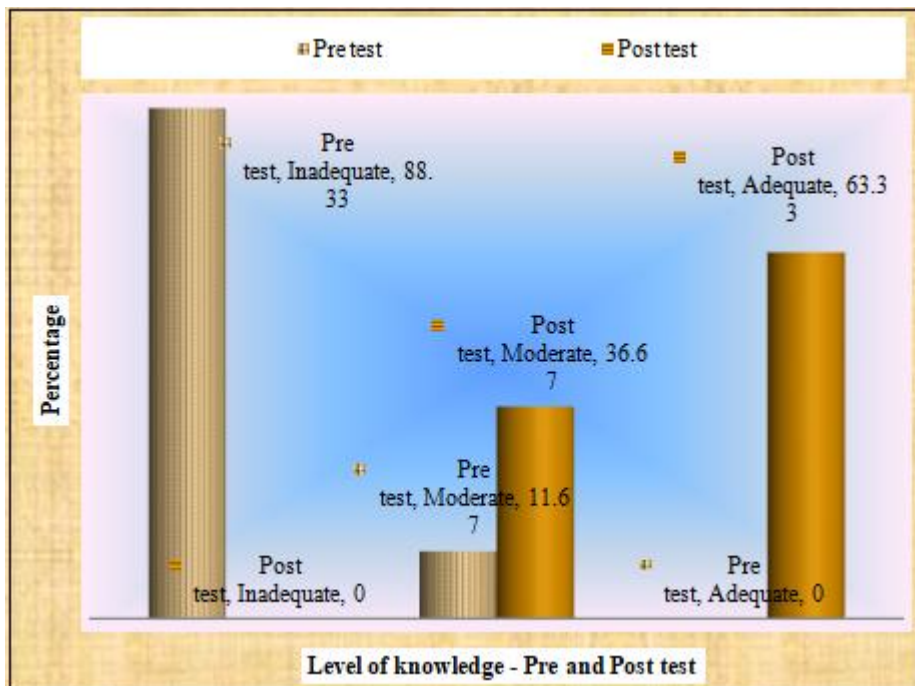


Figure: Graph representing of Comparison between Pre and Post- test results

- 2) Comparison between Pre- and Post- test results of the students practice regarding risk factors and prevention of Coronary artery disease
- It is observed from the present study that the mean as well as the standard deviation of the practice on prevention of coronary artery disease during the pretest

is 5.7 and 1.97 and mean percentage is 38% and during the posttest it is 11.9 and 1.5 and mean percentage is 79.3%. The difference in the mean practice score on prevention of coronary artery disease is statistically significant (<0.001)

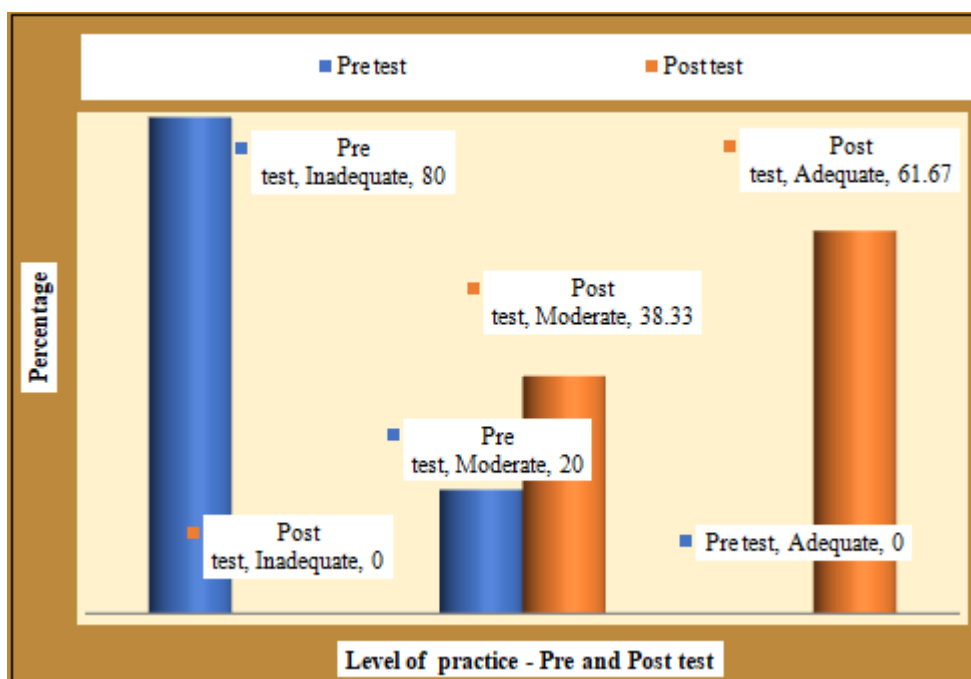


Figure: Graph representing of Comparison between pre and post- test results.

4. Discussion

Level of knowledge of students regarding risk factors and prevention of Coronary artery disease in the post test shows that 63.33% of the students were having adequate knowledge on risk factors and prevention of Coronary artery disease and 36.67% of the students were having moderate

knowledge on risk factors and prevention of Coronary artery disease.

- 1) In the present study during the post-test, the students had a mean of 19.27 with a standard deviation of 2.6 and mean percentage of 77.08 % regarding risk factors and prevention of Coronary artery disease among II year GNM (N) students.

- 2) In the present study during the post-test, the students had a mean of 11.9 with a standard deviation of 1.5 and mean percentage of 79.3% regarding risk factors and prevention of Coronary artery disease among II-year GNM (N) students.
- 3) It is observed from the present study that the mean as well as the standard deviation of the knowledge on risk factors and prevention of Coronary artery disease during the pretest is 7.1 and 3.4 and during the posttest it is 19.27 and 2.6. The difference in the mean knowledge score on risk factors and prevention of Coronary artery disease is statistically significant (<0.001)
- 4) It is observed from the present study that the mean as well as the standard deviation of the practice on prevention of coronary artery disease during the pretest is 5.7 and 1.97 and mean percentage is 38% and during the posttest it is 11.9 and 1.5 and mean percentage is 79.3%. The difference in the mean practice score on prevention of coronary artery disease is statistically significant (<0.001)

5. Recommendations

- 1) A similar study can be conducted on a large sample to generalize the study findings.
- 2) Mass and individual education in regional languages to enlighten the student's can be organized at all the level of health facilities.
- 3) Comparative study may be conducted to find out the similarities or differences in knowledge between the students working in government hospitals as well as in private hospitals
- 4) Similar study can be conducted on student's with different qualifications.
- 5) A study can also be conducted on the nursing students studying in various nursing colleges.
- 6) Comparative study may be conducted to find out the similarities or differences in knowledge and practice between the GNM students and B.Sc students. Similar study can be conducted on other staff nurses in various other hospitals.

6. Conclusion

Coronary heart disease is a leading factor causing morbidity and mortality, both in the developing and developed countries around the world.

The following conclusions were drawn on the basis of the present study topic to assess the effectiveness of Planned teaching Programme on Knowledge and Practice regarding risk factors and prevention of Coronary artery disease among II year GNM (N) students studying in selected Nursing Schools at Bangalore. This section brings about the limitations of the study into practice. The findings of the study have several implications on nursing practice, nursing administration, nursing education and nursing research. The study shows that the students are having inadequate knowledge on coronary artery disease.

7. Implications

Nursing Practice

The student's play a major role in preventing the transmission of various kinds of diseases. Hence if they have adequate knowledge regarding coronary artery disease, they can protect themselves as well as the patient from various kind of diseases by following the universal precaution while taking care of coronary artery disease. It is the primary responsibility of the nursing tutors to assess the knowledge and practice of the students regarding risk factors and prevention of coronary artery disease.

Nursing Administration

Nursing health administration should make the public awareness about prevention of disease among the students.

Nursing Education

Nursing education helps the students with adequate knowledge and skills to fulfil their duties and responsibilities in the nursing field. The awareness on risk factors and prevention of coronary artery disease should be emphasized to prevent from the further complications not only among the patients and health professional but also the general public and this can be achieved only through planned teaching programme or through self-instructional health module prepared by the health professionals

Nursing Research

In India, only few research studies have been done on assessment of knowledge and practice on coronary artery disease. All students must join hands to provide scientifically tested material or programs to evolve a time bound plan for coronary artery disease. This study revealed that there is deficit in knowledge among the student's hence the students are at a high risk of contracting the disease, so there is need for extended nursing research on coronary artery disease.

References

- [1] Smeltzer C, Bare G B. Brunner and suddarth's text book of Medical surgical Nursing. 10th ed. Philadelphia: Lippincott Williams and Wilkins; 2004
- [2] Jena N B, Kadithi A. Study of risk factors affecting the survival rate of emergency victims with chest pain as chief complaints. 2009 Dec 17; 34(4): 293-297.
- [3] Hatmi Z N, Tahvildari S et. al. Prevalence of coronary artery disease risk factors in Iran- A population based survey. BMC cardiovascular disorders 2007 Oct 30; 7(32):7-32.
- [4] Mandal S, Saha J B. et. al. Prevalence of is coronary heart disease among urban population of Silguri, West Bengal. American College of Cardiology Foundation. 2009; 34(1):19-23.
- [5] www.google.com
- [6] Koutoubi S, Huffman F G. Coronary heart disease risk factors among tri ethnic college students. The internet journal of cardiovascular research. 2002; 1(1): 30-42.
- [7] Ahmad N, Bhopal R. Is coronary heart disease rising in India? A systematic review based on ECG defined coronary heart disease. 2005; 91(6): 719-725

- [8] Mackay J, Mensah G. Atlas of heart disease and stroke-WHO 2004 Update. Geneva: WHO Press; 2004.
- [9] Bahl VK, Prabhakaran D, Karthikeyan G. Coronary artery disease in Indians. *Indian Heart J* 2001; 50(3): 4-8.
- [10] Stephen R. Daniels, MD, phd; Ronald M. Lauer, MD; Dianne L. Atkins, MD “American Heart Association Guidelines for Primary Prevention of Atherosclerotic Cardiovascular Disease Beginning in Childhood”, *Circulation*.2003;107:1562-1566
- [11] Djoussé L, Gaziano JM. Dietary cholesterol and coronary artery disease: a systematic review. *CurrAtheroscler Rep*. 2009 Nov; 11(6):418-22.
- [12] Gupta R. Recent trends in coronary heart disease epidemiology in India. *Indian Heart J*. 2008 Mar-Apr; 60(2 Suppl B):B4-18.
- [13] Schoenenberger AW, Erne P. Coronary artery disease - definitions and epidemiology *Ther Umsch*. 2009. Apr; 66(4):223-9.
- [14] Stephen R. Daniels.” Cardiovascular disease risk factors and atherosclerosis in children and adolescents”, *Journal, Current Atherosclerosis Reports*, 2001, Nov; Vol.3, No.6, 479-485.
- [15] Polit D.F and B.P Hungler, “ Textbook of nursing research principles and methods”, Lippincott publications, Page no. 57.
- [16] Burke GL, Savage PJ, Sprafka JM, et,al Relation of risk factor levels in young adulthood to parental history of disease. The CARDIA study.*Circulation*.1991 Sep; 84(3):1176-87. 107
- [17] Metcalf PA, Scragg RK, Swinburn B. Modifiable risk factor levels of coronary heart disease survivors in a middle-aged workforce *NutrMetab Cardiovasc Dis*. 1999 Jun;9(3):125-32.