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Sabina Kujur
Assistant Professor, Narayan Nursing College, GNSU, Jamuhar, Bihar, India

Priyanshu Kumar
Post Basic B.Sc. Nursing II Year Student Narayan Nursing College, GNSU, Jamuhar, Bihar, India

Kumar Rajnish
Post Basic B.Sc. Nursing II Year Student Narayan Nursing College, GNSU, Jamuhar, Bihar, India

Purnima Patel
Post Basic B.Sc. Nursing II Year Student Narayan Nursing College, GNSU, Jamuhar, Bihar, India

Prity Priya
Post Basic B.Sc. Nursing II Year Student Narayan Nursing College, GNSU, Jamuhar, Bihar, India

Sugandha Kumari
Post Basic B.Sc. Nursing II Year Student Narayan Nursing College, GNSU, Jamuhar, Bihar, India

Roshni Kumari
Post Basic B.Sc. Nursing II Year Student Narayan Nursing College, GNSU, Jamuhar, Bihar, India

Seema Kumari
Post Basic B.Sc. Nursing II Year Student Narayan Nursing College, GNSU, Jamuhar, Bihar, India

Amrita Kumari
Post Basic B.Sc. Nursing II Year Student Narayan Nursing College, GNSU, Jamuhar, Bihar, India

Anupriya Sinha
Post Basic B.Sc. Nursing II Year Student Narayan Nursing College, GNSU, Jamuhar, Bihar, India

Amrita Sinhaunder
Post Basic B.Sc. Nursing II Year Student Narayan Nursing College, GNSU, Jamuhar, Bihar, India

Corresponding Author:
Sabina Kujur
Assistant Professor, Narayan Nursing College, GNSU, Jamuhar, Bihar, India

A study to assess the effectiveness of structured teaching programe regarding risk factor & warning signs of cardiovascular diseases among patient admitted in NMCH Jamuhar

Sabina Kujur, Priyanshu Kumar, Kumar Rajnish, Purnima Patel, Prity Priya, Sugandha Kumari, Roshni Kumari, Seema Kumari, Amrita Kumari, Anupriya Sinha and Amrita Sinhaunder

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Abstract
This study evaluates the effectiveness of a structured teaching program on the risk factors and warning signs of cardiovascular diseases among patients admitted to the Narayan Medical College and Hospital (NMCH), Jamuhar, Bihar. Cardiovascular diseases (CVDs) remain a leading cause of death globally, and awareness of risk factors is crucial in reducing their burden. A quantitative pre-experimental research design (one-group pre-test and post-test) was used, with a sample size of 60 patients from the CCU ward. The purposive sampling technique was applied. Pre-test and post-test knowledge assessments were conducted using a structured questionnaire. Results indicated a significant improvement in patients' knowledge after the teaching intervention, with the mean post-test score (12.05) notably higher than the pre-test score (7.23). These findings suggest that structured educational programs play a key role in enhancing awareness and can aid in the prevention of CVDs.

Keywords: Cardiovascular diseases, risk factors, warning signs

Introduction
Cardiovascular disease is any disease involving the heart or blood vessels. Constitute a class of diseases that includes: coronary artery diseases (e.g. angina, heart attack), heart failure, hypertensive heart disease, rheumatic heart disease, cardiomyopathy, arrhythmia, congenital heart disease, valvular heart disease, aortic aneurysms, peripheral artery disease, thromboembolic disease, and venous thrombosis. Cardiovascular Diseases is the third leading cause of death in India. Incidence of Cardiovascular Diseases and its associated mortality is rising in India. Awareness of the risk factors and warning signs of Cardiovascular Diseases may play a role in the prevention of Cardiovascular Diseases, thus reduces the global burden of the disease. The purpose of this study was to assess the patient's knowledge regarding the risk factors and warning signs of Cardiovascular Diseases and provide a need based educational programme to improve their awareness on that.

Methodology
The research approach selected was quantitative experimental approach and research design was one group pre-test post-test (Pre-experimental design). The study was conducted at Narayan Medical College and Hospital, Jamuhar Sasaram Bihar. The sample consists of 60 subjects admitted in the CCU ward. The sampling technique used to select the subjects was purposive sampling technique.

Result
- The data shows that the mean post-test knowledge scores of patients on risk factors and warning signs of Cardiovascular Diseases (12.05) is higher than the mean pre-test knowledge score (7.23).
- The table further shows that the median for the pre-test is 7.0 and for post-test is 12 which is fairly close to the mean of pre-test mean 7.23 and post-test mean 12.05

respectively, indicating a fairly normal probability curve, which means all the measures of central tendency coincide at the centre of the distribution to a greater extent.

- The standard deviation of post-test knowledge scores (2.43) are slightly more than the standard deviation of pre- test knowledge scores (2.06).
- The data given in the table no. 4.2 shows that the mean post-test knowledge scores of patients on risk factors and warning signs of Cardiovascular Diseases (12.05) is higher than the mean pre-test knowledge score (7.23).
- The table further shows that the median for the pre-test is 7.0 and for post- test is 12 which is fairly close to the mean of pre- test mean 7.23 and post- test mean 12.05 respectively, indicating a fairly normal probability curve, which means all the measures of central tendency coincide at the centre of the distribution to a greater extent.

Discussion
In this study the 50 -60 years and male person is most affected by cardiovascular diseases as well as obese character found in that human. The self-structured questionnaire and this study helps to decrease incidence of cardiovascular disorder and play important role in the promotion of health in primary, secondary and tertiary prevention.

Methodology
Research methodology indicates the general pattern of organizing the procedure for gathering valid and reliable data for investigation. Research methodology is the systematic, theoretical analysis of the methods applied to a field of study. It comprises the theoretical analysis of the body of methods and principles associated with a branch of knowledge. Research methods are invented to enable a researcher to answer research questions as validly, objectively, accurately and economically as possible. The research methodology includes the strategy to be used to collect and analyze the data to accomplish the research objectives.

Research Approach
Quantitative experimental approach.

Research Design
One group pre-test post-test design (Pre-experimental design).

Setting of the study
The study was conducted in Narayan Medical College and Hospital, Jamuhar.

Sample
Patients admitted in hospital in CCU ward.

Sampling Technique
Purposive sampling techniques was used.

Sample size
6 Patients (Pilot Study) and 60 Patients (Main study)

Criteria for sample collection
The samples were selected with the following pre-determined criteria.

Inclusion criteria
- Patients admitted in hospital in CCU ward.
- Aged above 25 years
- willing to participate in the study
- Able to read & understand Hindi& English.

Exclusion criteria
- Who are not willing to participate in the study?
- Those who are not present at the time of data collection.

Findings related to the evaluation of structured teaching programme on risk factors and warning signs of cardiovascular diseases in terms of knowledge of Patients

Table 1: Mean, median and standard deviation of pre-test and post- test knowledge scores of patients N = 60

Sl. No.	Test	Mean	Median	Standard deviation
1.	Pre-test	7.23	7	2.06
2.	Post-test	12.05	12	2.43

The data given in the table no. 4.2 shows that the mean post-test knowledge scores of patients on risk factors and warning signs of Cardiovascular Diseases (12.05) is higher than the mean pre-test knowledge score (7.23).
The table further shows that the median for the pre-test is 7.0 and for post-test is 12 which is fairly close to the mean of pre- test mean 7.23 and post-test mean 12.05 respectively, indicating a fairly normal probability curve, which means all the measures of central tendency coincide at the centre of the distribution to a greater extent.
The standard deviation of post-test knowledge scores (2.43) are slightly more than the standard deviation of pre- test knowledge scores (2.06).
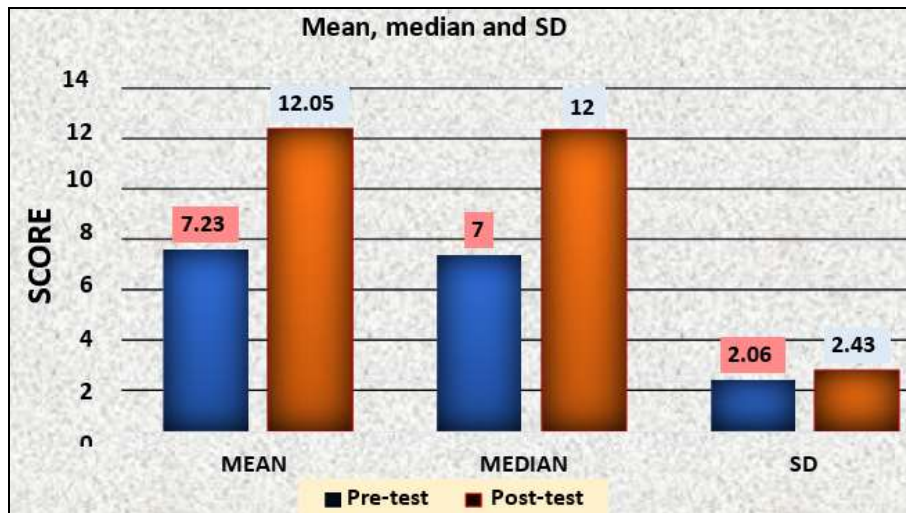
Fig 1: Pre-test and post- test knowledge scores of patients

Discussion

Studies across worldwide proven that there is an alarming rise in the incidence of cardiovascular disorder especially in India due to population explosion. The major risk factors which are responsible for cardiovascular disorder are hypertension, diabetes mellitus, dyslipidaemia and habits such as smoking and alcoholism. The best way to reduce the incidence of cardiovascular disorder is awareness about stroke, its risk factors, warning signs and preventive measures. The purpose of the present study is to "assess the effectiveness of structured teaching programe regarding risk factor & warning signs of cardiovascular diseases among patient admitted in NMCH Jamuhar. The present study was done among structured teaching programme who were admitted in Narayan Medical College and Hospital, Sasaram, Bihar. The present study subject's knowledge regarding risk factors and warning signs of cardiovascular disorder were insufficient as compared to similar studies from other geographical areas.

In the present study most of the patients Out of 60 patients 16 (26.67) were in age group of below 40 years, 17 (28.33%) were in age group 40-50 years, 19 (31.67) were in the age group of 50-60 years and 8 (13.33%) were in the age group 60 and above. Majority of the patients were 34 (56.67%) male and 26 (43.33%) were female. Out of 60 patients 6 (10%) were illiterate, 8 (13.33%) were graduation/ matriculation, 25 (41.67%) were under matriculation, and 21 (35%) were post graduate or other. Regarding occupational status 14 (23.33%) were private, 11(18.33%) were government employee, 7 (11.67%) were own business, 18 (30%) were none employment. Out of 60 patients 3 (5%) were Hindu, 21 (35%) were Muslim, 31 (51.67%) were Sikh, 5 (8.33) were other. Majority of the patients were 33 (55%) from urban area and 27 (45%) from rural area.32 (53.33%) patient were vegetarian, 28 (46.67%) patients were both veg and non-vegetarian and none of patients were non-vegetarian. Out of 60 patient 18 (30%) were below 40kg or under nutrition, 6 (10%) were normal from BMI, 6 (10%) were 80 -100 kg or severe obese, 30 (50%) were > 100 kg or severe obese.

Conclusion

This chapter deals with the conclusion, implications, recommendations, and limitations drawn for the study "A study to assess the effectiveness of structured teaching programe regarding risk factor & warning signs of cardiovascular diseases among patient admitted in NMCH Jamuhar". The following conclusions were drawn based on the findings of the study:

- Out of 60 patients 16 (26.67) were in age group of below 40 years, 17 (28.33%) were in age group 40-50 years, 19 (31.67) were in the age group of 50-60 years and 8 (13.33%) were in the age group 60 and above.
- Majority of the patients were 34 (56.67%) male and 26 (43.33%) were female.
- Out of 60 patients 6 (10%) were illiterate, 8 (13.33%) were graduation/ matriculation, 25 (41.67%) were under matriculation, and 21 (35%) were post graduate or other.
- Regarding occupational status 14 (23.33%) were private, 11(18.33%) were government employee, 7 (11.67%) were own business, 18 (30%) were none employment.
- Out of 60 patients 3 (5%) were Hindu, 21 (35%) were Muslim, 31 (51.67%) were Sikh, 5 (8.33) were other.
- Majority of the patients were 33 (55%) from urban area and 27 (45%) from rural area.
- 32 (53.33%) patient were vegetarian, 28 (46.67%) patients were both veg and non-vegetarian and none of patients were non-vegetarian.
- Out of 60 patient 18 (30%) were below 40kg or under nutrition, 6 (10%) were normal from BMI, 6 (10%) were 80 -100 kg or severe obese, 30 (50%) were > 100 kg or severe obese.
- Majority of the patient's family members 11(18.34%) suffers from Cardiovascular diseases, (81.67%) patient's family members not suffers from Cardiovascular diseases.
- Out of 60 patients, 9 (15%) were know about cardiovascular disease on the television, 6 (10%) were known about cardiovascular disease on help of poster 15 (25%) were already health professional, 30(50%) were don't known about cardiovascular diseases.
- Out of 60 patients, 21 (35%) were low socio-economical status, 30 (50%) were middle socio-economical status, 9 (15%) have high or good socio-economical status.

Conflict of Interest

Not available

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