A Study to assess the Effectiveness of Planned Teaching Programme on Knowledge regarding cardiac rehabilitation for client undergoing CABG among the Nursing Students of Selected colleges at Kheda District

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Abstract: Introduction: The heart is the crucial role responsible for pumping blood and oxygen throughout the body ,thereby supporting human life . Generally, cardiovascular disease (CVD) encompasses a group of conditions affecting the heart or blood vessels. Cardiac rehabilitation programs are gaining increased recognition because they aid in restoring, maintaining, and enhancing both physiological and psychosocial health of the patient.

Aim: To determine knowledge and attitude regarding cardiac rehabilitation among nursing students at selected nursing colleges of Kheda-anand district.

Methodology: The Quasi experimental one group pretest posttest research design used for this study. The study was conducted on 80 nursing students from selected nursing colleges of Kheda district by non- probability convenient sampling technique. A semi-structured questionnaire tool was used for data collection.

Results: 1.6% students having good knowledge, 30.4% having average knowledge and 68%having poor knowledge regarding organ donation. The mean score of knowledge is 12.132±4.363. when 70% students having positive attitude, 30% having negative attitude regarding organ donation. The mean score of attitude is 65.67±9.168. correlation between knowledge and attitude 0.37 that positively weak correlation between knowledge and attitude

Conclusion: The study highlights the disparity knowledge regarding cardiac rehabilitation for client undergoing CABG among the final year nursing students. Although the majority lack adequate knowledge, a considerable number still maintain a positive attitude. This emphasizes the need for targeted educational interventions to improve understanding and promote positive attitudes toward organ donation.

Key words: Assess, Knowledge, Cardiac rehabilitation, Nursing students.

I. INTRODUCTION

The heart plays the crucial role in pumping blood and oxygen throughout the body, thereby supporting human life. It collaborates with other bodily systems to perform various functions within the body. The primary role of the heart is to circulate blood throughout the body using various blood vessels. Currently, cardiovascular diseases are widespread and are recognized as the primary cause of death[1].

To lower the mortality rate from cardiovascular disease, various treatments are available One of the primary treatments for all heart issues related to the coronary artery is coronary artery bypass grafting (CABG).

Certain cardiac surgeries are conducted to correct heart defects. This involves procedures such as CABG (Coronary artery bypass grafting), where a damaged artery is replaced with a new one to create an alternative route for blood circulation. CABG is a procedure performed to reduce the risk of death from coronary artery disease. It is a major surgical operation in which athermanous blockages in a patient's coronary arteries are bypassed using harvested venous or arterial grafts. The bypass restores blood flow to the ischemic area, which in turn restores the heart's function and viability.[2]

Cardiac rehabilitation programs are gaining increased recognition because they aid in restoring, maintaining, and enhancing both physiological and psychosocial health of the patient. It is a recently developed and rapidly growing intervention primarily developed, delivered, and assessed by nurses. Cardiac rehabilitation assists in your recovery and enhances strength. It comprises a range of coordinated and diverse interventions intended to enhance a cardiac

patient's physical, psychological, and social well-being. It is a program aimed at educating patients to enhance their quality of life following cardiovascular disease or surgery. Cardiac rehabilitation can be administered across various stages or phases[3].

As given in previous research by S. Hammad Jafri et al. (Curr Problem Car diol, Dec 2023)who investigated the impact of Home-Based Cardiac Rehabilitation (HBCR) on patients with Heart Failure (HF) at Veterans Affairs Medical Center from November 2017 to March 2020. The study compared outcomes between 105 patients who attended HBCR and 72 who did not, adjusting for age, smoking, PCI, and CABG status. The mean age was 72, and 98% were male. Results showed the HBCR group had lower all-cause hospitalizations and mortality than the non-HBCR group, with no difference in cardiovascular hospitalizations. Both HFrEF and HFpEF patients benefitted equally from HBCR.[4]

The objective of this study was to assess the pretest and posttest knowledge of nursing students regarding the cardiac rehabilitation and to evaluate the effectiveness of planned teaching programme and find out the association between both pretest and posttest knowledge scores. So method adapted to accomplish this study was quantitative approach with the use of non-probability convenient sampling.

MATERIAL AND METHODS

A material and methods section should give enough detail to evaluate and if needed, to repeat the experiments reported in the article.

Research approach:" A research approach is the procedure selected by the researcher to collect, analyse, and interpret data."

Here in this study, the research approach is quantitative research approach.

Research setting: "The study setting is the location in which the research is conducted, it could be natural, partially controlled environment".

The study was conducted in the selected nursing college of Kheda district

Target population: "A population is the entire group that you want to draw conclusions about a sample is the specific group that you will collect data from the size of the sample is always less than the total size of the population".

In present study, the target population consisted of all nursing students from selected nursing college at Anand/Kheda district.

Sample: "A sample is a smaller, more manageable version of larger collection. It is a subset containing greater population characteristics."

Sample size: "Sample size refers to the number of participants included in a study."

The sample size for the study was 80 of nursing students taken from selected nursing colleges at Anand/Kheda district.

Sample technique: "Sampling technique is the process of studying the population by gathering information and analysis that data."

The sample of the study was selected by Non-probability convenient sampling technique. The total sample size was 80 and they were selected based on inclusive and exclusive criteria.

Sampling criteria:

(1) Inclusive criteria

•Who are studying in the Final year Nursing.

•Who are available at the time of data collection period.

•Both genders will be selected.

•Those who wants to participate willingly.

•Total sample size should be 80.

(2) Exclusive criteria

•Who are not studying in Final year Nursing.

•Who are not ready to participate willingly.

Demographic data sheet, structured questionnaire and planned teaching programme were used.

Description of the tool:

Section A: The demographic variable in that Gender, Age, Religion, Source of health information.

Section B: The structure knowledge questionnaire and planned teaching program was used in the study.

Steps of data collection:

The Knowledge Assessment Tool was administered to the students. Time taken by each respondent for filling the questionnaire was average 10-15 minutes. A developed planned teaching programme was implemented to students.

RESULT

Table -1 indicates that among 80 participants all the samples belonged to age group of 21-22 years (100%).The participants were taken 50% (40) from Final Year BSc(N) and 50% (40) from Third Year GNM course. The majority of participants were females 87.5% (70) and males were 12.5% (10).Considering the marital status all the participants were unmarried 100% (80)Regarding work exposure in cardiac department 15% (12) samples had worked in cardiac department and 85% (68) samples had not worked in cardiac department.

Table 1: Frequency and percentage distribution of selected demographic variables of nursing students

Sr No.	Demographic Data	F	%
Age	19 -20 years 21 -22 years 23 – 24 years More than 24	0 80 0 0	0 100% 0 0
Course of study	Final Year B.Sc.(N) Third Year GNM Second Year PBB.Sc. Second Year ANM	40 40 0 0	50% 50% 0 0
Gender	Male Female	10 70	12.5 % 87.5 %
Marital status	Married Unmarried	0 80	0 100 %
Work exposure to cardiac department	Yes No	12 68	15 % 85 %

Table-2: Assessment of pretest and post-test knowledge regarding cardiac rehabilitation among Final Year Nursing students at selected colleges at kheda district

Table-2 shows the pretest level of knowledge of nursing students in which 10% (08) students had adequate knowledge and 90% (72) students had inadequate knowledge regarding cardiac rehabilitation.

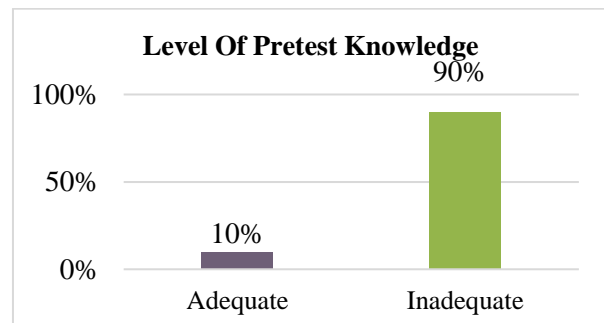| Level Of Knowledge (Pre Test)	Score Range	F	%
Adequate Knowledge	21 -30	72	90 %
Inadequate Knowledge	1 -20	68	10%

Table-3 Percentage distribution of nursing students according to their post test level of knowledge

| Level Of Knowledge	Score Range	F	%
Adequate Knowledge	21-30	60	75 %
Inadequate Knowledge	1 -20	20	25%

Table -4 : Mean and Standard Deviation of Final Year Nursing students in pretest and post test level of knowledge regarding cardiac rehabilitation of CABG.

Knowledge	Mean	Standard Deviation
Pretest	15.775	3.399
Posttest	23.1	3.2

Table -4 shows the knowledge in pretest and its mean score was 15.775 and standard deviation was 3.339. Post test knowledge mean score was 23.1 and standard deviation was 3.2.

GRAPH 1: Percentage distribution of nursing students according to their pretest level of knowledge
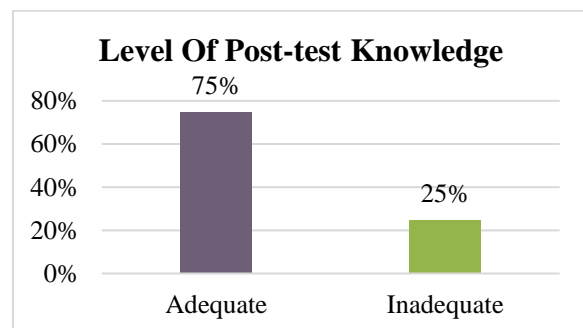
GRAPH 2: Percentage distribution of nursing students according to their post test level of knowledge

DISCUSSION

The main study was evaluate the effectiveness of planned teaching programme on knowledge regarding cardiac rehabilitation after CABG among final year nursing students at kheda district .A structured

knowledge questionnaire tool was used to collect data .A quasi experimental one group pretest posttest design was used to evaluate knowledge of 80 final year nursing students at selected colleges at kheda district regarding cardiac rehabilitation. The pretest was followed by implementation of planned teaching programme and posttest was conducted after 7 days to evaluate the effectiveness of teaching programme .

The findings of the study are discussed under the following headings .

1.)Demographic characteristics
2)To evaluate the effectiveness of planned teaching programme .

The table one indicates the among 80 participants all the sample belonged to age group of 21-22 years .there were samples belonged to 50 %(40) from final year BSc (N) and 50% (40) from Third Year GNM course . the majority of participants were females 87.5% (70) and males were 12.5% (10).considering the marital status all participants were unmarried 100%(80).regarding work exposure in cardiac department 15% (12) samples had worked in cardiac department and 85 %(68)samples had not work in cardiac department

The assess the effectiveness of PTP on knowledge regarding cardiac rehabilitation after CABG among final year nursing students .

The quasi experimental study conducted among 80 nursing students ,the pre test knowledge of nursing students in which 10%(08) students had adequate knowledge and 90% (72) students had inadequate knowledge regarding cardiac rehabilitation .the post test knowledge of nursing students after administering planned teaching programme on cardiac rehabilitation which 75 %(60)students had adequate knowledge and 25%(20) students had inadequate knowledge .

The overall mean knowledge score of pre test was 15.775 and standard deviation was 3.399, Posttest knowledge mean score was 23.1 and standard deviation was 3.2 is apparently higher than pre test median . the results shows the need for more training of students and nurses in cardiac rehabilitation of CABG patients.

CONCLUSION

Overall , the level of knowledge of final year nursing students in pretest was 10% (08) students had adequate

knowledge and 90% (72) students had inadequate knowledge regarding cardiac rehabilitation. And then after the administration of planned teaching programme the level of knowledge of nursing students was significantly increased which was assessed in post test where the post test level of knowledge of nursing students was 75% (60) students had adequate knowledge and 25% (20) students had inadequate knowledge. This indicates that the planned teaching programme was effective for the final year nursing students.

Limitation:

The study will be delimited to final year nursing of the selected colleges of kheda district. The study might have been conducted within a limited timeframe, which could have impacted the depth of data collection and analysis. A longer duration might have allowed for a more comprehensive study. As an experimental study, this research might only provide a snapshot of the knowledge of nursing students at a particular point in time. It cannot capture changes or trends in these factors over time.

ACKNOWLEDGEMENT

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