Research Article

A Study to Assess the Effectiveness of Educational Package on Cardiac Assessment Regarding Knowledge and Practice among BSc Nursing Students of Kheda, Anand Distric

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A B S T R A C T

Background: Cardiovascular disease is the world's leading reason for death. In 2019, 17.9 million individuals passed on from CVDs, containing 32% of worldwide mortality. (World health Association, 2021) An exhaustive, deliberate patient evaluation is vital in the administration and care of a patient with cardiovascular illness. Evaluation can be portrayed as 'an organized assortment of data concerning the patient's wellbeing status which plans to recognize the patient's ongoing wellbeing status, genuine and potential medical conditions and regions for wellbeing improvement.

AIM: The current study is aimed to assess the effectiveness of educational package on knowledge and practice regarding cardiac assessment among selected BSc nursing students.

Objective:

1. To Assess the Pre-Post Test Level of Knowledge Regarding Cardiac Assessment among Selected BSc Nursing Students of Kheda and Anand District.
2. To Assess the Pre-Post Test Level Practice Regarding Cardiac Assessment among BSc Nursing Students of Kheda and Anand District
3. To Assess the Effectiveness of Educational Package Regarding Cardiac Assessment of Selected BSc Nursing Students of Kheda and Anand District.
4. To Find out Association of Demographical Variable Between Knowledge and Practice Regarding Cardiac Assessment among Selected BSc Nursing Students of Kheda and Anand District.

Methodology Design and Setting: A Quasi-Experimental research design were used and convenient sampling method was used to drawn

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samples. The tool validation from various subject experts, all questions were given to the students and inform consent form also has been conducted for data collection from the samples. Prior to data collection written setting permission obtain from Principals of various college, for the data collection researcher were selected colleges at Nadiad, Anand district. The total sample size was 100 students.

The tool consists of following

Section A: Sociodemographic variables.,

Section B: Knowledge questionnaire related to cardiac assessment.

Section C: Practice checklist related to cardiac assessment.

Result: Information uncovers that the pre-test knowledge mean score of samples was 15.79 and SD was 3.790, post-test knowledge mean score was 22.06 and SD 2. 915.The pre-test Practice mean score of samples was 15.12 and SD was 3.406 and post-test practice mean score was 21.38 and SD was 2.915. The comparison between pre interventional knowledge and practice among BSc nursing students had significant difference with the 't' value. The paired t test value knowledge (20.68) and practice (22.03). hence there exits significance effectiveness on level of knowledge and practice before and after administration of education package among nursing students.

Conclusion: The study concluded that educational package was effective in increasing the knowledge and practice regarding cardiac health assessment among selected nursing students. The choice of learning strategies in nursing education seems to have great impact on nursing students use of cardiac assessment skills while in clinical rotation. There is a need to explore nursing students learning processes related to the use of cardiac assessment.

Keywords: Cardiac assessment, Knowledge, Practice, Nursing students, Educational Package Effectiveness

Introduction

The biggest cause of death worldwide is cardiovascular disease. 17.9 million persons worldwide died from CVDs in 2019, accounting for 32% of all deaths. (WHO, 2021)[1.] One-fifth of these deaths worldwide, particularly among the younger population, occur in India. According to the findings of the Global Burden of Disease study, India has an age-standardized CVD death rate of 272 per 100,000 people, significantly higher than the global average of 235. Indians are affected by CVDs ten years earlier than people in the west. Early age of beginning, quick progression, and high death rate are particularly concerning factors for us Indians with regard to CVD. The highest rates of coronary artery disease (CAD) are known to occur in Indians, yet the usual risk factors are unable to account for this elevated risk.[2]

The physical examination must include a cardiac assessment.[3] Given the advancement of new technology, there appears to be a decline in the general level of competency in cardiac assessment diagnostic abilities.[4] In order to effectively treat and care for a patient with heart illness, a thorough, methodical patient assessment is required. An organized gathering of data regarding the issues and potential areas for health improvement can be referred to as assessment.

According to the NHS Management Executive (1991) and the United Kingdom Central Council of Nursing, Midwifery, and Health Visiting (UKCC) (1992), there is an increasing expectation that nurses with the necessary training and experience will be able to conduct assessments that were previously done by doctors.[5]A comprehensive cardiac examination can help a doctor improve the next step in the clinical diagnosis, save pointless diagnostic tests, and help the patient develop trust through touch. Nurses are in charge of determining patients' overall health by ongoing medical evaluation and fast, appropriate intervention in response to changes or deterioration in general health. Even though cardiac examination is an important part of the nursing curriculum, past research indicates that only 11–29% of evaluation procedures taught in nursing schools are actually employed on a daily basis.[6]

The ability to do a cardiac examination has always been regarded as one of the most important skills taught throughout medical school, resulting in a more economical use of diagnostic services. The therapeutic effect of human touch cannot be measured, but these abilities increase direct interaction with patients as well.[7]

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Materials And Methods

Research Approach: Quantitative Research approach was used for the current study.

Research Design: Quasi Experimental Research Design One group pre-test post-test was used to drawn the study participants in the study.

Research Variables: There are two types of variables considered under the study as follows

Independent variable: Educational package which is provided to the study participants to enhance their knowledge and Practice toward cardiac assessment.

Dependent variable: Knowledge and practice of the college students.

Demographic variable: Age, Gender, Place of residence, residential status, previous exposure of cardiac assessment class etc.

Sampling method: In this research study, non-Probability sampling technique (convenient sampling technique) was used for data collection form the study population. For dawns the final samples from the population research has used Computerised tabulation method under simple random technique.

Study population: It considered all the College Students who were study under the study setting area.

Study Sample: Students who are studying in second year of BSc nursing.

Study Setting: Dinsha Patel college of nursing (Nadiad), Knowledge nursing institute (Anand) college has been selected for the main study setting and data collect from the students.

Sample Size: 100 students

Sample Criteria

Inclusion Criteria

- Students Those Studying In 2rd Year BSc Nursing.
- Both Male and Female Students of Nursing.
- Students Who are Present During the Time of Data Collection.

Exclusive Criteria

- Students who will not be available at the time of data collection.

Tool for Data Collection

Section A: Sociodemographic variables.

Section B: Knowledge questionnaire related to cardiac assessment. Section C: Practice checklist related to cardiac assessment.

Result

Section I: Distribution of Sample Characteristics According To Socio Demographic Variables of Participants

Table 1.Frequency and percentage distribution of selected demographic variable of nursing students such as Age, Gender, Residential status, place of residence, have you ever attended cardiac assessment

S. No.	Demographic Data	Frequency N=100	Percentage
1.	Age in years18-20 Years 21-23Years 24 or Above 24 Yr.	81 19 0	81% 19% 0%
2.	Gender Male Female Transgender	27 73 0	27% 73% 0%
3.	Place of residence UrbanRural	70 30	70% 30%
4.	Residential status HostelPG Home	7 12 81	7% 12% 81%
5.	Previous exposure of cardiacassessment YesNo	28 72	28% 72%

Section 2: Assessment of Pretest and Posttest Knowledge and Practice Regarding Cardiac Assessment among Bsc Nursing Students.

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Table 2.Frequency and percentage distribution of nursing students according to pre-test and post-test level of knowledge regarding cardiac assessment

S. No.	Level of Knowledge	Pre-test Knowledge	Post-test Knowledge
1	Inadequate Knowledge (<50%)	45 (45%)	1 (1%)
2	Moderate Knowledge (50-75%)	49 (49%)	37 (37%)
3	Adequate Knowledge (>75%)	6 (6%)	62 (62%)
Total		100	100

Table 3.Paired t-test analysis for the significance of pre-test and post-test knowledge and practice regarding cardiac assessment among B.Sc. Nursing student

(n=100)

Knowledge	Max Score	Enhancement score		Paired t test	P-value
		Mean	SD		
Overall Knowledge	30	6.27	3.03	20.68**S df= 99	P<0.05 Sig.= 0.00
Overall Practice	30	6.26	2.84	22.03**S df= 99	P<0.05 Sig.= 0.00

The above table 2.1 shows in the pre-test and post-test level of knowledge regarding cardiac assessment in the pre-test 45 (45.0%) of nursing student had inadequate knowledge, 49 (49.0%) had moderate knowledge and only 06 (6%) had adequate knowledge. After intervention of educational package in the Post-test 1 (1.0%) of nursing students had inadequate knowledge, 37(37.0%) had moderate knowledge and majority of students had adequate knowledge 62 (62%).

The above table 2.3 shows in the pre-test and post-test level of practice regarding cardiac assessment in the pre-test 48 (48.0%) of nursing student had poor practice, 52 (52.0%) had average practice and none of them having good practice. After intervention of educational package in the Post-test 44(44.0%) had average practice and majority of students had good practice 56 (56%) and none of them having poor practice level.

Section 3: Effectiveness of Education Package on Knowledge and Practice Regarding Cardiac Assessment Among B.sc. Nursing Students Before and After Administartion of Educational Package.

Section 4: Association between pre test knowledges core regarding cardiac assessment among b.sc. nursing students with their selectd emographicvariables.

Table 3.Frequency and percentage distribution of nursing students according to pre-test and post- test level of practice regarding cardiac assessment

(n=100)

S. No.	Level of Practice	Pre-testPractice	Post-testPractice
1	Poor (<50%)	48 (48%)	0 (0%)
2	Average (50-75%)	52 (52%)	44 (44%)
3	Good (>75%)	0 (0%)	56 (56%)
	Total	100	100

Table 4.Association between Pre-test Knowledge score regarding cardiac assessment among B.Sc. Nursing student with their select demographic variables

(n=100)

Demographic Data	F	%	Level of Practice			χ^2- Value	Tabulated Value P-Value
			Poor	Average	Good		
Age in years							
18-20 Years21-23Years 24 or Above 24 Yr	81 19 0	81% 19% 0%	44 8 0	37 11 0	0 0 0	0.920 df=1NS	P>0.05 Sig 0.337 3.84

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Demographic Data	F	%	Inadequate	Moderate	Adequate	χ²-Value	TabulatedValue P-Value
Gender							
Male Female Transgender	27 73 0	27% 73% 0%	14 38 0	13 35 0	0 0 0	0.001 df=1NS	P>0.05 Sig 0.986 3.84
Place of residence							
UrbanRural	70 30	70% 30%	35 17	35 13	0 0 0	0.374 df=1NS	P>0.05 Sig 0.541 3.84
Residential status							
HostelPG Home	7 12 81	7% 12% 81%	6 3 43	1 9 38	0 0 0	6.73 df=2S	P<0.05 Sig 0.035 5.99
Previous exposure of cardiac Yes No	28 72	28% 72%	18 34	10 38	0 0	4.35 df=1S	P<0.05 Sig 0.031 3.84

Table 6.Association between pre-test Practice score regarding cardiac assessment among B.Sc.Nursing student with their select demographic variables

(n=100)

Demographic Data	F	%	Level of Knowledge			χ²-Value	TabulatedValue P-Value
			Inadequate	Moderate	Adequate		
Age in years18-20 Years 21-23Years 24 or Above 24 Yr.	81 19 0	81% 19% 0%	36 9 0	39 10 0	6 0 0	1.500 df=2NS	P>0.05 Sig 0.472 5.99
Gender Male Female Transgender	27 73 0	27% 73% 0%	20 25 0	7 42 0	0 6 0	13.18 df=2S	P<0.05 Sig 0.001 5.99
Place of residence UrbanRural	70 30	70% 30%	22 23	43 6	5 1	17.41 df=2S	P<0.05 Sig 0.000 5.99
Residential status HostelPG Home	7 12 81	7% 12% 81%	4 10 31	3 2 44	0 0 0	9.72 df=4S	P<0.05 Sig 0.041 9.48
Previous exposure of cardiac Yes No	28 72	28% 72%	11 34	16 33	1 5	0.551 df=2NS	P>0.05 Sig 0.551 5.99

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Conclusion

The following conclusion was reached after analysing this study:

There is significant evidence that more clinical skill training and evaluation are required during medical school. The goal of the current study, which used 100 samples, is to evaluate students' knowledge of and practice with cardiac evaluation among those attending particular institutions in Kheda, Anand District. The implementation of the teaching package about cardiac examination will aid students in understanding, develop their abilities, and prepare them to be responsible nurses, improving the quality of healthcare in the hospital setting. Teachers also need to emphasize these abilities in clinical settings, model their use, and highlight their usefulness in providing high-quality patient care in order to reinforce and preserve the development in clinic skills that could not be stored by a systematic curriculum. Finally, studies are required to determine whether faster diagnosis, less wasteful resource utilization, and higher patient satisfaction are all outcomes of increased clinical abilities.

Acknowledgement

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