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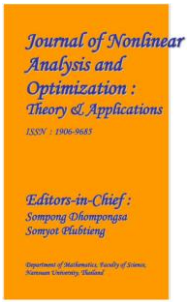

A STUDY TO ASSESS THE EFFECTIVENESS OF EDUCATIONAL PACKAGE ON CARDIAC ASSESSMENT REGARDING KNOWLEDGE AND PRACTICE AMONG BSC NURSING STUDENTS OF KHEDA, ANAND DISTRICT

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ABSTRACT
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.

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

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 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 collecting data, the researcher obtained written consent from the principals of the several institutions in the Nadiad and Anand districts. 100 students made up the entire sample.
These are the components of the tool:
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). Therefore, there is significant effectiveness on the level of knowledge and practice among nursing students before and after administration of the instruction package.

Conclusion
The study came to the conclusion that the educational package was successful in improving the knowledge and skills of a subset of nursing students about heart health assessment. Nursing students' use of cardiac assessment skills during clinical rotations appears to be significantly influenced by the learning modalities they choose throughout their nursing education. It is crucial to look into how nursing students are taught how to utilize cardiac assessment.

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. India accounts for one- fifth of these fatalities globally, especially among the younger population. India has an age- standardized CVD mortality rate of 272 per 100,000 people, which is much higher than the global average of 235, according to the Global Burden of Disease research. Ten years sooner than those in the west, Indians have CVDs. Early age of beginning, quick progression, and high death rate are particularly concerning factors for us Indians in relation to CVD. The highest rates of coronary artery disease (CAD) are known to occur in Indians, yet the usual risk elements include 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.

There is an increasing expectation that nurses with the required education and experience will be able to conduct assessments that were previously carried out by doctors, according to the NHS Management Executive (1991) and the United Kingdom Central Council of Nursing, Midwifery, and Health Visiting (UKCC) (1992).5A 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

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 regrading Cardiac Assessment among BSc nursing students of Kheda and Anand District
3. To Assess the Effectiveness of Educational Package regrading Cardiac Assessment of Selected BSc Nursing Students of Kheda and Anand District.
4. To Find out association of demographical variables between Knowledge and Practice regarding Cardiac Assessment among Selected BSc Nursing Students of Kheda and Anand District.

MATERIALS AND METHODS

Research Approach: - For the current study, a quantitative research technique was adopted.

Research Design: - Quasi Experimental Research Design –

The research participants were selected using a one group pre-test and post-test.

Research Variables: The study takes into account the following two categories of variables 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

Sampling method: - non-probability sampling approach (Convenient sampling technique) was employed in this project to obtain data from 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: Data collection from the students will take place primarily at Dinsha Patel College of Nursing (Nadiad) and Knowledge Nursing Institute (Anand).

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 were present while the data were collected.

Exclusive criteria:

o Students who won't be available when data is collected.

Data collection tool:

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 4.1: 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

. No.	**Demographic Data**	**Frequency N=100**	**Percentage**
1.	**Age in years**		
	18-20 Years	81	81%
	21-23Years	19	19%
	24 or Above 24 Yr.	0	0%
2.	**Gender**		
	Male	27	27%
	Female	73	73%
	Transgender	0	0%
3.	**Place of residence**		
	Urban	70	70%
	Rural	30	30%
4.	**Residential status**		
	Hostel	7	7%
	PG	12	12%

	Home	81	81%
5.	**Previous exposure of cardiac assessment**		
	Yes	28	28%
	No	72	72%

SECTION-2: ASSESSMENT OF PRETEST AND POSTTEST KNOWLEDGE AND PRACTICE REGARDING CARDIAC ASSESSMENT AMONG BSC NURSING STUDENTS.

Table 2.1 shows the frequency and percentage distribution of nursing students by their knowledge of cardiac assessment before and after tests.

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 2.1 above illustrates 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%).

Table-2.3 shows the frequency and percentage distribution of nursing students by their level of practice doing cardiac assessments before and after tests.

No.	Level of Practice	Pre-test Practice	Post-test Practice
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 2.3 above illustrates 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 KNOWELDGE AND PRACTICE RELATED TO CARDIAC ASSESSMENT AMONG B.SC. NURSING STUDENTS BEFORE AND AFTER ADMINISTARTION OF EDUCATIONAL PACKAGE.

Table-3.1: pre-and post-test knowledge and practice of cardiac assessment among B.Sc. nursing students were analysed using paired t-tests to determine their significance. (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

SECTION-4: ASSOCIATION BETWEEN PRETEST KNOWLEDGE SCORE REGARDING CARDIAC ASSESSMENT AMONG B.SC. NURSING STUDENTS WITH THEIR SELECT DEMOGRAPHIC VARIABLES.

Table-4.1: 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 knowledge**			X^2-Value	Tabulated value P-value
			Inadequate	Moderate	Adequate		
Age in Years							
18-20 Years	81	81%	36	39	6	1.500	P>0.05
21-23Years	19	19%	9	10	0	Df=2	Sig 0.472
24 or Above 24 Yr.	0	0%	0	0	0	NS	5.99
Gender							
Male	27	27%	20	7	0	**13.18**	**P<0.05**
Female	73	73%	25	42	6	**Df=2**	**Sig 0.000**
Transgender	0	0%	0	0	0	**S**	**5.99**
Place of residence							
Urban	70	70%	22	43	5	**17.41**	**P<0.05**
Rural	30	30%	23	6	1	**df=2**	**Sig 0.000**
						S	**5.99**
Residential status							
Hostel	7	7%	4	3	0	**9.72**	**P,0.05**
PG	12	12%	10	2	0	**Df=4**	**Sig 0.041**
Home	81	81%	31	44	0	**S**	**9.48**
Previous exposure of cardiac						0.551	P>0.05
Yes	28	28%	11	16	1	df=2	Sig 0.551
No	72	72%	34	33	5	NS	5.99

Table 4.2: Association pre-test Practice score regarding cardiac assessment among B.Sc. Nursing student with their select demographic variables. (n=100)

Demographic data	**F**	**%**	**Level of Practice**			X^2 Value	Tabulated value P-value
			Poor	Average	Good		
Age in years							
18-20 Years	81	81%	44	37	0	0.920	P>0.05
21-23Years	19	19%	8	11	0	df=1	Sig 0.337
24 or Above 24 yr	0	0%	0	0	0	NS	3.84
Gender							

Male	27	27%	14	13	0	0.001	P>0.05
Female	73	73%	38	35	0	df=1	Sig 0.986
Transgender	0	0%	0	0	0	NS	3.84
Place of residence							
Urban	70	70%	35	35	0	0.374	P>0.05
Rural	30	30%	17	13	0	df=1	Sig 0.541
					0	NS	3.84
Residential status							
Hostel	7	7%	6	1	0	**6.73**	**P<0.05**
PG	12	12%	3	9	0	**df=2**	**Sig 0.0035**
Home	81	81%	43	38	0	**S**	**5.99**
Previous exposure of cardiac						**4.35**	**P<0.05**
Yes	28	28%	18	10	0	**df=1**	**Sig 0.031**
No	72	72%	34	38	0	**S**	**3.84**

Conclusion:

The following conclusion was reached after analysing this study:

There is important evidence that more clinical skill training and evaluation are required during medical school. The objective of the present 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 execution 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.

Conflict of Interest: There is not any conflict of interest between the all authors

Source of Funding: Self-funding

Ethical Clearance: The research committee at Dinsha Patel College of Nursing, which has an overall membership of 15 people from diverse fields, authorized the study. Prior to data collection, a formal written approval was obtained from the authority of or Principal of the Institute under reference number DPCN/IEC/4062100004.

Statement of Informed consent: Yes, participants were asked to sign an informed consent form before any Data was gathered.

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