

A Study to Evaluate the Effectiveness of Structured Teaching Programme on Knowledge Regarding Evidence based Nursing Practice among Staff Nurses in Selected Hospitals, Guwahati

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Abstract: *This study aims to examine the level of knowledge of staff nurses about evidenced based nursing practice before and after the structured teaching programme and its effectiveness. Evaluative approach with one group pre test post test design was used to assess the knowledge of 50 samples in selected hospitals of Guwahati. Structured knowledge questionnaire was used which included 40 MCQs and STP of 45 minute was given before and after the intervention. It was found that in pre-test the mean score of the samples were 10.4 with a standard deviation of 2.43 at a SEM of 0.347. The score ranges from 7-15 in pre-test. In post- test mean score percentage was 72.65% with a mean score of 29.06. The standard deviation was 2.90 with SEM of 0.414 and range from 20-36 after It was found that the STP is effective in changing the level of knowledge at 0.01 level of significance. There was significant association between pre-test level of knowledge and selected socio demographic variables- Professional Qualification, Experience and In-Service education.*

Keywords: Effectiveness, Structured teaching programme, Knowledge, Evidenced based nursing practice

I. INTRODUCTION

Evidence-based practice in nursing is best defined by the process it describes. As part of the daily activity of clinical nursing and clinical nursing education evidence-based practice provides nurses and nurse educators with a tool by which they can provide the best and safest health care possible. Evidence- Based Nursing Practice (EBNP) is the wave of the future. Increasingly, evidence based nursing practice is being identified as a key to quality and excellence in nursing services. Incorporating evidence into practice is necessary to deliver scientifically sound patient care.

The majority of practicing nurses does not get benefit from the research works since they do not receive any formal instructions in research. Most nurses practice nursing according to what they learned in nursing institutions as well as their experience in practice. They may therefore lack the skills to judge the merits of scientific projects. Nurses may become barriers to utilization of nursing research if they perceive that this aspects of care is not important, they do not feel that they have to change the practice, or think powerless to make changes in their clinical setting. It is important that nurses are educated about the changes in practice with regard to knowledge and skills needed to make improvement to work environment. Changes in practice and improvement to quality of care are anticipated with the adoption of evidence based practice.

1.1 Statement of the Problem

“A study to evaluate the effectiveness of structured teaching programme on knowledge regarding evidence based nursing practice among staff nurses in selected hospitals, Guwahati, Assam”

1.2 Objectives of the study

- To assess the existing knowledge of staff nurses regarding evidence based nursing practice by pre test.
- To prepare and administer structured teaching programme on evidence based nursing practice
- To evaluate the effectiveness of structured teaching programme on evidence based nursing practice by comparing pre and post test knowledge score.
- To find out the association between pre test knowledge scores of staff nurses and selected demographic variables

1.3 Hypothesis

Hypothesis is a statement of predicted relationship between variables

To achieve the stated objectives, following hypothesis have been developed which will be tested at 0.05 level of significance.

H₁: There is a significant difference in pre test and post test knowledge of staff nurses regarding evidence based nursing practice.

H₂: There is a significant association between the demographic characteristics and the pre test knowledge scores of staff nurses regarding evidence based nursing practice.

II. METHODOLOGY

Research Approach – Evaluative research approach

Research design: One group pre-test post-test experimental design

Setting of the study: Selected hospitals of Guwahati. Assam

Variables:

Dependent Variable : Knowledge of staff nurses regarding Evidenced based nursing Practice

Independent Variable: Structured teaching programme.

Population: Staff nurses with GNM, B.Sc (Nursing), PBBN who were working at the time of data collection in selected settings of the Marwari maternity hospital and Apollo Hospital, Guwahati.

Sample and sample size: 50 staff nurses from selected population.

III. METHODS OF DATA COLLECTION AND ANALYSIS

The data was generated by using the structured questionnaire. Purpose sampling technique was adopted. The data was obtained from the study subjects were analyzed and interpreted in terms of the objectives and hypothesis of the study. Descriptive and inferential statistics were used for the data analysis at the probability level set at 0.01

IV. RESULTS

Section I: Table I: Assessment of knowledge on Evidence Based Nursing Practice among staff nurses before STP. N=50

Sl. No.	Knowledge	Max Possible score	Median	Mean	SD	SEM	Range	Mean Score %
1	Information regarding nursing research	7	2	2.36	0.875	0.125	1-4	33.71%
2	Information regarding EBNP	25	6	6.12	1.814	0.259	3-11	24.48%
3	Strategies to overcome barriers	8	2	1.92	0.922	0.132	0-4	24%
4	Overall	40	10	10.4	2.43	0.347	7-15	26%

The above table shows the summary of statistical outcomes of knowledge on Evidence Based Nursing Practice the table shows that mean score of the samples were 10.4 with a standard deviation of 2.43 at a SEM of 0.347. The score ranges from 7-15 before STP. The mean score percentage was computed and it was found to be 26%. From the results it was found that the sampled subjects were having inadequate knowledge regarding Evidence Based Nursing Practice.

Section I : Table II: Assessment of knowledge on Evidence Based Nursing Practice among staff nurses after STP. N=50

Sl. No.	Knowledge	Max Possible score	Median	Mean	SD	SEM	Range	Mean Score %
1	Information regarding nursing research	7	5	4.56	0.884	0.126	3-6	65.14%
2	Information regarding EBNP	25	19.5	19.56	2.026	0.289	14-23	78.24%
3	Strategies to overcome barriers	8	5	4.96	1.088	0.155	3-7	62%
7	Overall	40	30	29.06	2.90	0.414	20-36	72.65%

The above table shows the summary of statistical outcomes of post-test knowledge on Evidence Based Nursing Practice. It was found out that the mean score percentage was 72.65% with a mean score of 29.06. The standard deviation was 2.90 with SEM of 0.414 and range from 20-36 after STP. From the results it was found that the sampled subjects had improved knowledge regarding Evidence Based Nursing Practice

Table III: Knowledge distribution of the subjects regarding Evidence Based Nursing Practice

Section	Knowledge	Frequency		Percentage		Mean score %	
		Pretest	Post-test	Pretest	Post-test	Pretest	Post-test
Common	Adequate	-	17	-	34%	-	81.25%
	Moderate	-	32	-	64%	-	66.25%
	Inadequate	50	1	100%	2%	26%	50%
Section A	Adequate	-	7	-	14%	-	85.71%
	Moderate	5	37	10%	74%	57.14%	64.29%
	Inadequate	45	6	90%	12%	28.57%	42.86%
Section B	Adequate	-	35	-	70%	-	84%
	Moderate	-	15	-	30%	-	64%
	Inadequate	50	-	100%	-	24.48%	-
Section C	Adequate	-	5	-	10%	-	87.5%
	Moderate	-	27	-	54%	-	68.75%
	Inadequate	50	18	100%	36%	24%	43.75%

The table clearly depicts the difference in post and pre-test knowledge scores. It is very evident that there is significantly increased knowledge in the post-test based on the increased score percentage and frequency distribution

Table IV Effectiveness of structured teaching program by comparing pre and post- test knowledge score

Parameter	Mean	S.D	SEM	Range	Mean%	t -value	Result
Pre-test	10.4	2.43	0.347	7-15	26%	33.06	HS P<0.001
Post-test	29.06	2.90	0.414	20-34	72.65%		
Improvement	18.66				46.65%		

The mean score is increased in the post-test score. The mean in the post test score is 29.06 and the mean in the pre-test is 10.4. The mean is improved by 18.66. The mean score percentage also showed an increase of 46.65%. The calculated value of t' is 33.06 which is highly significant.

Hence Hypothesis I is accepted

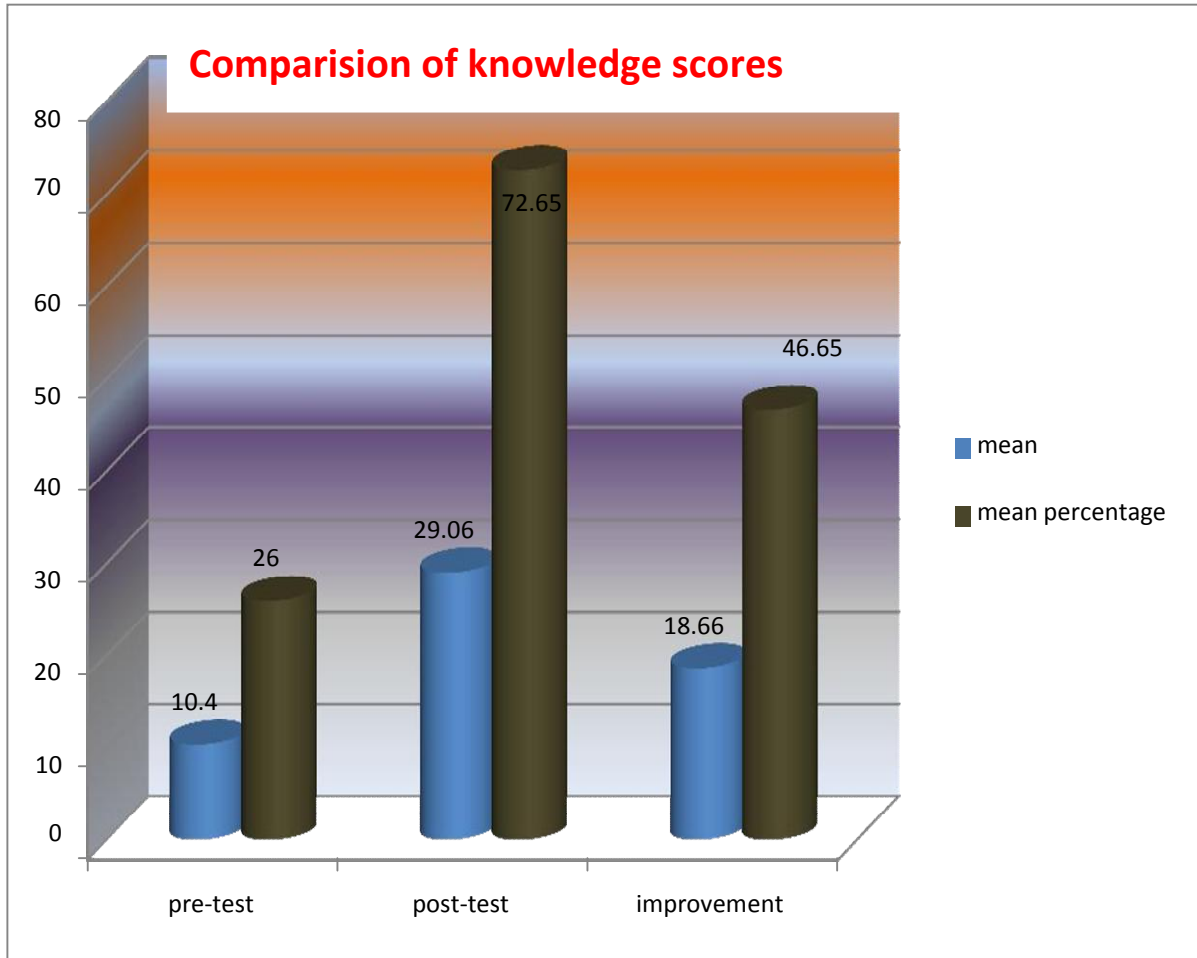


Figure 1: Percentage distribution of pre test and post test overall Knowledge level after structured teaching programme

Section II: Table 05: The association between pre-test knowledge score regarding evidence based practice in nursing and selected demographic variables . N =50

DEMOGRAPHIC VARIABLES		Knowledge of staff nurses				Chi-squaretest
		<median	%	≥Median	%	
Age	22-30 yrs.	6	26.09%	9	33.33%	$X^2=3.133$ NS
	31-38 yrs.	4	17.39%	9	33.33%	
	39-46 yrs.	6	26.09%	5	18.51%	
	Above 47	7	30.43%	4	14.81%	
Gender	Male	6	26.09%	6	22.22%	$X^2=0.102$ NS
	Female	17	73.91%	21	77.77%	
Marital Status	Unmarried	5	21.73%	10	37.03%	$X^2=1.384$ NS
	Married	18	78.26%	17	62.96%	
Professional Qualification	GNM	14	60.86%	9	33.33%	$X^2= 13.48$ S
	B.Sc Nursing	6	26.09%	10	37.03%	
	Post B,Sc Nursing	3	13.04%	8	29.62%	

Professional Experience	0-10	6	26.09%	7	25.93%	$X^2=10.465$ S
	11-20	4	17.39%	10	37.03%	
	20-30	6	26.09%	6	22.22%	
	Above 30	7	30.43%	4	14.81%	
Current area of working	Emergency	6	26.09%	5	18.51%	$X^2=0467$ NS
	General ward	11	47.82%	15	55.56%	
	ICU	6	26.09%	7	25.93%	
In Service education	Yes	6	26.09%	16	59.26%	$X^2=5.548$ S
	No	17	73.91%	11	40.74%	

Data presented in the above table for post-test indicate that the chi-square values of demographic variables like age, gender, marital status, current area of work, are not significant at 0.05 level of significance. On the contrary, the chi-square values for Professional qualification and Professional experience and are significant at 0.05 level of significance. **Thus, it is concluded that there is a significant association between pre-test knowledge score of staff nurses and with their socio-demographic variables hence we accept the research hypothesis H_2 .**

V. SUMMARY AND MAJOR FINDINGS

The study was conducted at Marwari Maternity Hospital and Apollo hospital Guwahati. The study was conducted from 12.02.22 to 12.03.22. Pre experimental one group pretest and posttest design was used in this study. The total period of data collection was 4 weeks. 50 samples were selected using purposive sampling technique. Oral consent was obtained. During the first week assessment of the level of knowledge Evidenced based nursing practice was done. The Structured Teaching Programme regarding Evidenced based nursing practice was provided. After 15 days of Structured Teaching Programme the level of knowledge among staff nurses were assessed by structured knowledge questionnaire.

The descriptive statistics was used for categorical data, mean and standard deviation, inferential statistics, Paired 't' test was used to evaluate the effectiveness of Structured Teaching Programme regarding knowledge of evidenced based nursing practice and Chi square was used to find out association between the level of knowledge regarding Evidenced based nursing practice and the selected demographic variables.

There was a significant difference ($p < 0.05$) found between the means of pretest 10.4 and means of post test knowledge 29.06 on level of knowledge regarding evidenced based nursing practice. The percentage of increase in mean was 46.65%. There was significant association between knowledge level and selected demographic variables (professional qualification, Professional experience and In service education) The finding of the study shows that Structured Teaching Programme more effective to improve the level of knowledge regarding evidenced based nursing practice in staff nurses..

In the pre-test the mean score of knowledge was 10.4 and mean % was 26 and In the Post test the mean score of knowledge was 29.6 and mean% was 72.65. The paired 't' test value was (33.06) which is greater than the table value at ($p < 0.05$) level of significance. Hence the Structured Teaching Programme is more effective in changing the level of knowledge regarding evidenced based nursing practice in staff nurses

VI. IMPLICATIONS

In Nursing Practice

Constant updating and growth are essential to keep abreast of scientific and technological change and changes within the nursing profession In service education programs are designed to upgrade the knowledge of employees. The findings of the study could be utilized as a basis for orientation programs and in-service education of the nurses so that constant awareness and clear understanding may be created regarding the importance of Evidence-based Nursing Practice. This will help the nurses to increase the knowledge and in establishing an active nursing research culture and promote evidence-based practice in the workplace.

Nursing education

Nurse educators have the opportunity to promote improved patient outcomes in the future by facilitating an evidence-based nursing approach within clinical nursing education. In India, the existing nursing curriculum includes content regarding Evidence-based Nursing Practice. But the updated guidelines can be incorporated in the curriculum. Research utilization projects undertaken by student nurses could have an impact on nursing practice on clinical nursing units. The nurse educators have the responsibility to update the knowledge of RNs and thereby improve their knowledge through various educational programs. Nurse educators are becoming recognized as important facilitators of research use in the health care system, thereby contributing to improved patient and system outcomes.

Nursing Administration

Nursing administration must plan a separate budget for continuing education programs. Nursing administration should take initiative to conduct orientation programs for advanced beginners. They must make sure that in-service education programs are conducted periodically. After training, the nurses should be provided with adequate facilities and supervision to maintain the standards of knowledge regarding Evidence-based Nursing Practice. The growing movement towards establishing EBNP is situated in a systematic appraisal of the best evidence available. Nurse leaders have an obligation to cultivate sound clinical and economic practices leading to quality patient care and positive work life environment for nurses.

Nursing Research

The conduct of research is of little value if findings are not used in practice to improve patient's care. Today more nurses are being prepared as researchers in nursing and the scientific body of nursing knowledge is growing. It is now every nurse's responsibility to facilitate the use of research findings in the direct provision of nursing care. The study throws light on the area of nurses' knowledge regarding Evidence-based Nursing Practice among staff nurses. There is a lot of scope for exploring this area. Research can be done on Evidence-based Nursing Practice.

VII. LIMITATIONS

The study was confined to a small number of subjects and was conducted on a convenient sampling, working in a selected hospital, which limits the generalization of findings.

A structured knowledge questionnaire was prepared for data collection, which restricts the amount of information that can be obtained from the respondents.

No attempt was made to do follow up of staff Nurses

The study lacked control group that did not receive any specific teaching to allow the researcher to test the increase in Nurse's knowledge without STP, the study was limited to only Diploma and Degree holder staff nurses

VIII. RECOMMENDATION FOR FUTURE STUDY

1. A similar study can be replicated on a larger sample with different demographic characters.
2. An Experimental study can be undertaken with control group.
3. A Similar study can be conducted using other strategies like SIM, booklets and pamphlets.
4. A study can be done on assessing the attitude and skills of staff nurses regarding evidenced based nursing practice

IX. CONCLUSION

The findings of the study support the need for staff nurses to increase the knowledge Evidenced based nursing practice in nursing. This study proved that the staff nurses have remarkable increase in the knowledge regarding evidenced based nursing practice, when compared to the previous knowledge, prior to the implementation of the STP.

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