Research Article

A STUDY TO ASSESS THE EFFECTIVENESS OF INDIVIDUAL STRUCTURED TEACHING PROGRAMME (ISTP) ON USE OF BRADEN SCALE FOR PREDICTING PRESSURE SORE RISK FOR BED FAST PATIENTS AMONG STAFF NURSES AT SELECTED HOSPITAL OF BIJAPUR

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ABSTRACT

Background: Skin care is a fundamental component of basic patient care and reflects on the overall quality of care a patient receives in the hospital**.** Pressure sore not only cause suffering to the patients but also increases the workload on health care professionals. Pressure ulcers have been described as one of the most costly and physically debilitating complications. The individual patient who develops an pressure ulcer will increase the costs of health care through the additional time spent in hospital, and occupy a bed for longer. In the domiciliary situation patient may require extra visits by the domiciliary nursing team. Thus nurses, who provide 24 hr care for patients in hospital and take accountability for the nursing care of patients at home, have a legal, moral and social obligation to prevent pressure ulcers. This study will highlight the involvement of nurses in care of bed past patient. The finding of the study might help in providing vigilant nursing care to patient in reducing the incidence of pressure sore.

The result revealed that in pre-test In the pre-test prior to the administration of individual structure teaching program data reflects that out of 50 respondents 50 (100%) had inadequate knowledge scores. Whereas in post-test 50 (100%) of respondents had adequate knowledge scores. In the pre-test practice scores i.e. 50 (100%) had inadequate practice scores whereas in post-test 40 (80%) of respondents had adequate practice scores and only 10 (20%) of respondents had moderate adequate practice score. paired t-test reveals that there is a significant difference between pre-test and post-test knowledge score (t=55.33, df=39, p=0.05). There will be a significant association between the pre test level of practice Score with selected socio demographic variables of staff nurses The study concluded that Individual structure teaching for effective in prevent pressure sore for bedfast patient using Braden assessment scale.

Aims and objectives: The study aims at assessing that Individual structure teaching for effective in prevent pressure sore for bedfast patient using Braden assessment scale for staff nurses of selected hospitals of vijayapur.

Materials and Methods: Pre experimental design with one group pretest and posttest was selected to carry out the present study. The sample size consisted of 50 Staff nurses working in hospital who fulfilled the eligibility criteria were selected by using non-probability convenient sampling technique. The tool for data collection consisted of 3 parts: 1) Proforma for assessing demographic variables (7 items); 2) structured knowledge questionnaires on pressure sore on use of Braden scale (26 items) and 3) and observational practice check list to assess the practice of staff nurses regarding pressure sore on use of Braden scale (22 items).The reliability of tool was determined by administering the tool to 5 staff nurses working in Hospitals . The tool was tested by split-half method. The reliability knowledge score was 0.815, The reliability Practice score was 0.781.The data required for this study was collected for 13 days (22-7-2013 to 05-8-2013). The study was conducted at selected Hospitals areas of Vijayapur. The subject's knowledge & Practice regarding pressure sore on use of Braden scale . For The main study selected subjects are assessed by structured knowledge questionnaires in morning & afternoon shifts total 05 investigators were involved in collecting knowledge scores from 50 selected samples. Total 26 questions in various areas of pressure sore & respondents taken 30 minutes to complete the questions. Every day 10 respondents were assessed in two shifts fallowed by observation of each respondent by using observation checklist from morning 8am to 1pm & 2pm to 7pm with ISTP. A 7 days interval was given before post test.

Results: Majority i.e. 36 (72%) of respondents were in the age group of 21-30, 36 (72%) of respondents were males and highest i.e. 36(72%) were diploma in nursing, 20 (40%) of respondents were having sources of information from co workers and majority i.e. 24 (40%) respondents were working in ICU and 20 (40%) of respondents were not undergone to any special training of pressure sore.

- In the pre-test prior to the administration of individual structure teaching program data reflects that out of 50 respondents 50 (100%) had inadequate knowledge scores. Whereas in post-test 50 (100%) of respondents had adequate knowledge scores. In the pre-test practice scores i.e. 50 (100%) had inadequate practice scores whereas in post-test 40 (80%) of respondents had adequate practice scores and only 10 (20%) of respondents had moderate adequate practice score.
- There was significant association found between pre tests knowledge scores of respondents with the selected demographic variables such as age, gender, educational status & with pre test practice scores such as age and gender. There was no significant association found between pre tests knowledge and practice scores of respondents with the selected demographic variables such as sources of information, area of working, working experience and special training of pressure sore programme at 0.05% level of significance.

Conclusion: Majority of staff nurses had Inadequate level of knowledge & practice towards use of Braden scale for predicting Pressure sore risk for bed fast patient, so there is a greater need to educate the staff nurses through mass education programme, seminar, workshop and in-service education finally there will be reduction of pressure sore on use of Braden scale for predicting Pressure sore risk for bed fast patient.

INTRODUCTION

Skin care is a fundamental component of basic patient care and reflects on the overall quality of care a patient receives in the hospital.[1] A sound skin makes you feel good & look healthy skin is often an indicator of our holistic wellness. Maintenance of a glowing, healthy skin needs good personal hygiene, unpolluted environment, avoiding contact with chemicals good

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eating habits and proper rest and peace happiness.[2] Pressure sore is a serious problem that leads to pain longer hospital stay and slow recovery from health problem patients confined to bed, chair, wheelchair who have limited mobility, with poor nutrition and incontinence are likely to develop pressure sores.[3]

Pressure sores, or decubitus ulcers, result from long periods of inactivity and pressure against a surface like a bed sheet. When the surface is moist, the skin is irritated and is more likely to develop pressure sores. Devices that could alert the nurses when the bed sheets are soiled would help reduce the number

of incidents of pressure sores.[4] The Braden scale for predicting pressure sore risk was developed to foster early identification of patients at risk for forming pressure sores. The scale is composed of six subscales that reflect sensory perception, skin moisture, activity, mobility, friction and shear and nutrition status. Two prospective studies of predictive validity were completed to determine the scale's sensitivity & specificity.[5]

The Braden scale assesses a patient's risk of developing a pressure ulcer by examining six criteria. Sensory Perception This parameter measures a patient's ability to detect and respond to discomfort or pain that is related to pressure on parts of their body. Moisture Excessive and continuous skin moisture can pose a risk to compromise the integrity of the skin by causing the skin tissue to become macerated and therefore be at risk for epidermal erosion. Each category is rated on a scale of 1 to 4, excluding the 'friction and shear' category which is rated on a 1-3 scale. This combines for a possible total of 23 points, with a higher score meaning a lower risk of developing a pressure ulcer and vice-versa. A score of 23 means there is no risk for developing a pressure ulcer while the lowest possible score of 6 points represents the severest risk for developing a pressure ulcer. The Braden Scale assessment score scale: Very High Risk: Total Score less than 9, High Risk: Total Score 10-12, Moderate Risk: Total Score 13-14, Mild Risk: Total Score 15-18.[6] Almost 150 years ago Florence Nightingale stated that a vast deal of suffering in hospitals resulted from avoidable causes. Unfortunately, one of the reasons that this statement may still be considered relevant in 21st century health care is the development of pressure ulceration.[7]

Statement of problem: A study to assess the effectiveness of individual structured teaching programme (ISTP) on use of Braden scale for predicting pressure sore risk for bed fast patients among staff nurses at Selected hospital of Bijapur.

Objectives of the study

- To assess the level of existing knowledge among staff nurses about use of Braden scale for predicting pressure sore risk for bed fast patients as measured by structured knowledge questionnaire
- To assess the level of practice among staff nurses about use of Braden scale for predicting pressure sore risk for bed fast patients as measured by observational checklist.
- To evaluate the effectiveness of individual structured teaching programme about use of Braden scale for predicting pressure sore risk for bed fast patients among staff nurses .
- To find out the association between pre test knowledge and practice scores with selected demographic variables of staff nurses.

Hypotheses

The following hypotheses would be tested at 0.05 level of significance.

H_1 : There will be a significant difference between the pre test and post test level of Knowledge scores among staff nurses on use of Braden scale.

H_2 : There will be a significant difference between the pre test and post test practice scores on use of Braden scale.

H_3 : There will be significant association between the pre test levels of knowledge scores with selected socio demographic variables of staff nurses.

H_4 : There will be a significant association between the pre test levels of practice

MATERIAL AND METHODS

Sources of Data

The data was collected from Staff Nurses at selected Hospitals of Bijapur.

Research Design: The research design selected for this pre experimental one group pre-test post-test research design.

Setting: This study was conducted in the selected Hospitals of Bijapur.

Population: In the present study population consisted of Staff nurses at selected Hospital of Bijapur.

Sample: The sample selected for the study was Staff nurses of selected Hospital of Bijapur, & samples were selected on the basis of inclusion criteria.

Sample Size: The sample size of this study consist of 50 Staff Nurses.

Sampling Technique: Non Probability convenient sampling technique was adopted for the study

Sampling Criteria

Samples were selected with the following predetermined set of criteria

Inclusion Criteria

Subjects

- Registered male and female staff nurses working in selected hospital at Bijapur.
- Registered Staff nurses who are present and willing to participate during the time of study

Exclusion Criteria

Subjects

- Staff nurses working in OPD, OT.
- ANM & Internship students.

Tool Used

Structured knowledge questionnaire was used to assess the knowledge and observational check list is used to assess the practice of staff nurses regarding pressure sore on use of Braden scale. The questionnaire has two parts.'

Part-I: Included 7 items of demographic variables such as age, gender, Area of work , qualification, source of information, years of experience and exposure to pressure sore programme regarding pressure sore on use of Braden scale.

Part-II: Consists of 2 sections, structured knowledge questionnaires and observation checklist.

Section I: Included 26 items of structured knowledge questions to assess the knowledge of staff nurses regarding pressure sore on use of Braden scale.

Section-II: Included 22 items of observational practice check list to assess the practice of staff nurses regarding pressure sore on use of Braden scale.

Statistical Methods

Mean, median, Frequency and SD were used to describe the data of samples. Chi square test was used to find out the association between patterns of usage of computer with selected demographic variables and Association between impacts on staff nurses regarding pressure sore on use of Braden scale with selected demographic variables.

RESULTS

The data were analyzed by using descriptive and inferential statistics. The major finding regarding demographic variables shows that majority i.e.72% of Staff Nurses were between the age of 21-30years; about 60% had BSC,N; and 72% of staff nurses are Male and 40% staff nurses Area of work is ICU,38% of staff nurses experience is 1-2year. 60% of staff nurses did not have any source of information regarding use of Braden scale for predicting pressure sore risk for bed fast patients .(table 1)

Table 1 Frequency and percentage distribution of socio-demographic variables.

n=50

Sl no	Variable	Frequency	%
1	**Age of the Staff nurse**		
	21-30	36	72
	31-40	14	28
	41-50	00	00
	>51	00	00
2	Sex		
	Male	36	72
	Female	14	28
3	Educational status		
	PBBSC.N	0	0
	BSC.N	30	60
	Diploma.N	20	40
4	Area of Work		
	General ward	00	00
	ICU	20	40
	Ortho ward	15	30
	Surgical ward	15	30
5	Working Experience		
	0-1	0	0
	1-2	19	38
	3-4	15	32
	>5	16	30
6	**Training of pressure sore**		
	Yes	20	40
	No	30	60
7	**If yes, source of knowledge;**		
	Continuous Nursing education	15	30
	Media	16	32
	Journal	0	0
	Co-worker	19	38

The assessment of Knowledge regarding use of Braden scale for predicting pressure sore risk for bed fast patients reveals the area wise mean knowledge score enhancement observed between pre test and post test scores. In the area of Anatomy and physiology 36%, 35% in the area of Braden scale, 26.5% in the area of Pressure sore.

The comparison of mean percentage of Practice scores of pre test and post test obtained by staff nurses on use of Braden scale for predicting pressure sore risk in bed fast patient. None of the respondents had adequate Practice scores in pre test. But where as in post test 80% of respondents had adequate practice scores & 100% respondents had in adequate practice score in pretest & in post test respondents had only 20% moderately adequate practice score.
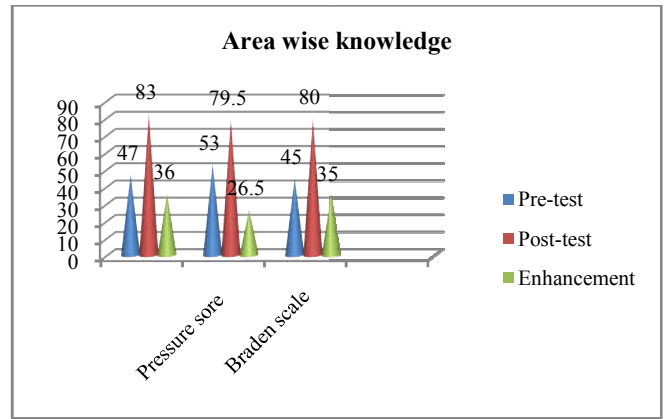

Fig 1 Comparison of area wise knowledge score percentage before and after administration of ISTP

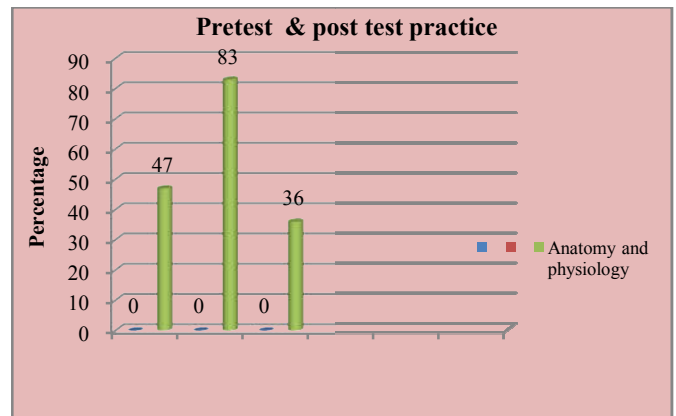It shows that ISTP was effective & post test practice score was higher than pre test practice scores.

Figure 2 Category wise comparison of pre test and post test Practice scores of respondents

Table 2 Comparison of pre and post test Practice scores

N = 50

Area of Practice	Pre-test		Post-test		Enhancement		Student's paired t-test
	Mean	SD	Mean	SD	Mean	SD	
Sensory perception	1.48	0.7	2.98	0.141	1.5	0.53	t=19.7
Moisture	1.52	3.22	4.98	0.616	1.46	0.31	t=4.70
Activity	1.82	0.38	3.66	0.479	1.82	0.092	t=20.2
Mobility	2.2	0.48	2.56	0.640	0.34	0.91	t=2.61
Nutrition	1.98	0.67	3.5	0.5	1.52	2.15	t=5.06
Friction &share	0.82	0.45	1.3	0.458	0.465	1.07	t=3.06

Table No.2 shows the results of application of t test (two tail test) to area wise pre test and post test Practice scores. The computed "t" values were higher than the table values obtained with degree of freedom of 49 at 0.05 level of significance. Results shows that there is statistically significant difference between area wise pre test and post test practice scores.

Table 3 Determination of overall mean Practice score before and after Individual structure teaching programme

N = 50

Practice	No. of Subjects	Pre-test		Post-test		Mean of differences		Paired t-test
		Mean	SD	Mean	SD	Mean	SD	
Overall Practice score	22	9.82	5.9	8.98	2.83	9.16	3.07	t=55.33

The above table shows the results of application of student`s t test (two tail test) to pre test and post test knowledge scores. The computed 't' value(55.33) between the means of pre test and post test was more than the critical 't' value obtained from 't' value tables at a level of significance of 0.05%. The results of 't' test shows that the improvement of mean value of knowledge scores of post test when compared to a lesser values of pre test were not by chance but due to the gain in Practice because of Individual structure teaching programme at a level of significance of 0.05%.

Table 3 Comparison of average practice score percentage before and after administration of Individual structure programme.

N = 50

Area of Practice	Pre-test Mean%	Post-test Mean%	Enhancement Mean%
Sensory perception	49.33	99	49.67
Moisture	25	83	58
Activity	45.5	92	46.5
Mobility	73	85	12
Nutrition	50	88	38
Friction &share	41	65	24

Table No.3.reveals the area wise score enhancement observed between pre test and post test mean practice scores was high in the area of Moisture ie 58%, 49.67% in the area of sensory perception, 46.5% in the area of Activity, 38% score in the area of nutrition, 24% score in the area of Friction & share, 12% score in the area of mobility on pressure sore.

DISCUSSION

The results of application of student`s t test (two tail test) to pre test and post test knowledge scores. The computed 't' value(61.35) between the means of pre test and post test was more than the critical 't' value obtained from 't' value tables at a level of significance of 0.05%. The results of 't' test shows that the improvement of mean value of knowledge scores of post test when compared to a lesser values of pre test were not by chance but due to the gain in knowledge because of Individual structure teaching programme was effective at a level of significance of 0.05%.

The present study is supported by another study supported by a experimental study conducted on pressure ulcer prevention in brazil. The results reveal that the respondent did not had Education for nursing home staff, The respondents should not had adequate knowledge score in pre test and post test knowledge score that is 88% & 90% .[8]

The comparison of mean percentage of Practice scores of pre test and post test obtained by staff nurses on use of Braden scale for predicting pressure sore risk in bed fast patient. None of the respondents had adequate Practice scores in pre test. But where as in post test 80% of respondents had adequate practice & 100% respondents had inadequate practice score in pretest but in post test practice score was only 20% of the respondents had moderately practice score. It shows that ISTP was effective & post test practice score was higher than pre test practice scores.

The present study is supported by another study conducted Pressure Ulcer Education Knowledge and Practice in Amman Jordan hospitals. The results revealed that respondents did not had adequate practice score in pre test .where has 76% of respondents had moderate practice score. [9]

The paired t-test was computed to compare the significance difference between the mean pre-test and post-test knowledge and practice score. The calculated knowledge t value (61.35) and practice t value (55.33) indicate that Individual structure teaching programme has helped respondents to improve their knowledge and practice regarding use of Braden scale for predicting pressure sore risk for bed fast patients. The whole study showed that Individual structure teaching programme was an effective teaching strategy. The study concluded that educational intervention was effective in prevention of pressure sore on using Braden scale for bed fast patients.

CONCLUSION

Majority of staff nurses had Inadequate level of knowledge & practice towards use of Braden scale for predicting Pressure sore risk for bed fast patient, so there is a greater need to educate the staff nurses through mass education programme, seminar, workshop and in-service education finally there will be reduction of pressure sore on use of Braden scale for predicting Pressure sore risk for bed fast patient.

Acknowledgement

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