



EFFECTIVENESS OF PLANNED TEACHING PROGRAMME ON KNOWLEDGE REGARDING BRADEN SCALE AMONG BSC NURSING STUDENTS IN SELECTED NURSING COLLEGES AT BANGALORE

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Abstract: Preventing pressure ulcers can save money and improve patient care. Pressure ulcers are a common problem in nursing practice and entail great expenses for the patients as well as for the health care services. Despite technological and preventive advances in recent years, the incidence of pressure ulcers in acute care remains unacceptably high. The Braden Scale for predicting pressure ulcer risk was developed to help nurses determine patients' risk of developing pressure ulcers. The scale, which takes less than a minute to complete, has been used with patients of all ages and in all settings and has been found to be more accurate than other scales or clinical judgment. An evaluative approach was adapted for this study to assess the effectiveness of the planned teaching programme on knowledge regarding the Braden Scale among 2nd, 3rd & 4th year BSc Nursing students in selected nursing colleges in Bangalore. A quasi-experimental (one group pretest-posttest) design was selected for this study. A structured questionnaire was used to assess the knowledge of nursing students. The tool was found to be reliable, with a reliability coefficient of $r = 0.89$. A pretest was conducted with the aid of a questionnaire for 100 students in selected nursing colleges in Bangalore. A post-test was conducted on the 8th day after the implementation of the PTP with a similar questionnaire to assess the enhancement of knowledge regarding the Braden Scale among 2nd, 3rd, and 4th year BSc Nursing students. In the pretest, 92% of students showed inadequate knowledge, and 8% showed moderate Knowledge on the Braden Scale. In the posttest, 99% of students showed adequate knowledge and 1% showed moderate knowledge on the Braden Scale, which shows the PTP was very effective. The chi-square was calculated to find out the association between the knowledge scores of the nursing students and their demographic variables. A paired 't' test result indicated a statistically significant difference between the pretest and posttest knowledge scores regarding the Braden Scale for all the knowledge aspects under investigation ($p < 0.05$). A statistically significant association was observed between sex and year of education and the knowledge level of the respondent regarding the Braden Scale at the 0.05 level of significance. However, in terms of the association of the knowledge score with sociodemographic variables, it was found that variables such as age, medium of education, and experience caring for bedridden patients had no significant (at a level of 5%) association with the knowledge score of the respondent. The findings of the study suggest that nurse educators should improve the knowledge of nursing students through education programs, and adequate knowledge regarding the Braden Scale will help student nurses prevent the complications of the bedridden patient.

Keywords: Braden Scale, Knowledge, Effectiveness, Planned Teaching Programme

INTRODUCTION

Skin care, is a fundamental component of basic care, reflects on the overall quality of care that a patient receives in hospital. Quality care aimed at preventing and minimizing skin breakdown and Pressure Ulcers has been identified as one of the nursing research priority.¹

The Braden Scale for predicting Pressure Ulcer risk is among the most widely used Tools for predicting the development of Pressure Ulcers. The Braden Scale, which measures six characteristics of skin condition and patient status, proved to be a predictor of ulcer development.²

The Braden Scale for Predicting Pressure Ulcer Risk was created to assist nurses in determining whether patients are at risk of getting Pressure Ulcers. The Scale, which takes less than a minute to complete, has been demonstrated to be more accurate than other measures or clinical judgement with patients of all ages and in all situations.³

BACKGROUND

A literature review was conducted to determine the Effectiveness of Pressure Ulcers Risk Assessment Scales (PURS) degree of validation and use of Pressure Ulcer (PU) prevention in clinical practice. The results showed that Braden Scale gave optimal predictive efficacy and the best balance of sensitivity (57.1%) and specificity (67.5%). Using the Braden Scale, sixteen studies on 5,847 patients found a 4.08 odds ratio of properly predicting a PU. They concluded that the Braden Scale has the best validity and reliability indicators across many studies and settings and predict PU development better than nurses' clinical judgment and use of a PU Risk Assessment Scale improves Pressure Ulcer preventive interventions.⁴

A sectional analytical study was performed on 140 patients hospitalized in 22 ICUs using Braden scale. The findings revealed that patients with the highest rates of Pressure Ulcers had the following characteristics: Sensorial Perception (completely limited), Moistness (constantly moist), Mobility (completely immobilised), Activity (bedridden), Nutrition (adequate), and Friction and Shear (problem). Finally, while giving care to patients undergoing intense therapy, the use of the Braden Scale is a crucial method.⁵

Suma K et al concluded that a structured teaching programme was more effective in increasing student nurses' knowledge of the Braden Scale's usage in predicting pressure ulcer risk. In their study there was significant gain in Knowledge

score who were exposed to Structured Teaching Programme i.e. 34.12%. The paired 't' test value ($t_{cal}=26.08^*$) was greater than the tabulated value ($t_{tab}= 2.009$) for Knowledge, hence proved that stated hypothesis i.e. the mean post test knowledge scores of Nursing students exposed to Structured Teaching Programme will be considerably higher than the mean pre-test knowledge scores at the 0.05 level of significance.⁶

A quasi experimental One group pre-test post-test study to assess the Effectiveness of Structured Teaching Programme regarding use of Braden Scale among student nurses in selected nursing college at Indore by using simple random sampling technique method. The tool comprised of by using structured Knowledge questionnaire. The pretest was conducted and the Structured Teaching Programme was administered. The post test was conducted after one week. The data obtained were analyzed by using differential and inferential statistics. The mean post-test knowledge score is 36.10 was greater than the mean pre-test Knowledge scores 20.50. The enhancement in the Knowledge level of respondents is 15.60 indicates gain in Knowledge by respondents.⁷

METHODOLOGY

An Evaluative approach was adapted for this study since the investigation was aimed to evaluate the Effectiveness of a Planned Teaching Program on Knowledge regarding Braden Scale among 2nd, 3rd & 4th year BSc. Nursing Students in selected nursing colleges at Bangalore. Qasi-experimental (One group pretest- posttest) design was selected for this study.

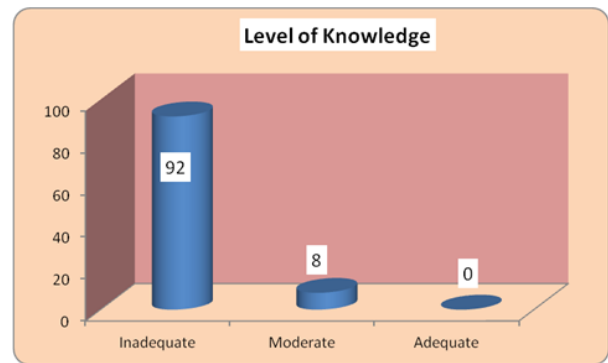
Purposive sampling technique was used to select the sample. The tools consisted of Structured Questionnaire to assess the Knowledge regarding Braden Scale. PTP was prepared based on the objectives of the study. Chi-square was calculated to find out the association between the Knowledge scores of the nursing students with their demographic variables. Paired t test was calculated to analyse the difference in Pre and Post-test Knowledge scores of Nursing students which shows significant difference between the overall scores

Table-1: Frequency and percentage distribution of 2nd, 3rd year & 4th year BSc Nursing Students according to demographic variables.

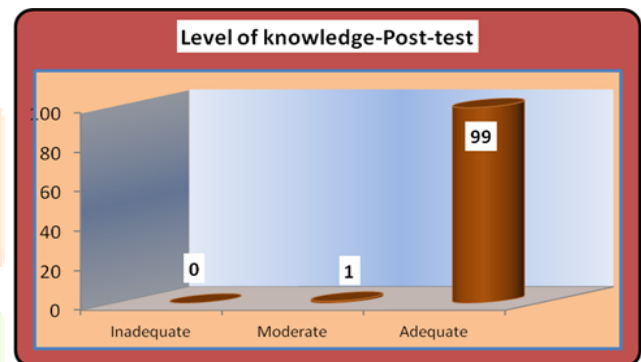
n=100

1	Age (In Years)		
	a. 18—20	45	45
	b. 21-22	55	55
2	Sex		
	a. Male	28	28
	b. Female	72	72
3	Religion		
	a. Hindu	40	40
	b. Muslim	7	7
	c. Christian	53	53
	d. Others	0	0
4	Medium of education		
	a. Tamil	18	18
	b. English	28	28
	c. Hindi	10	10
	d. Malayalam	44	44
5	Year of education		
	a. 2 nd year	48	48
	b. 3 rd year	23	23
	c. 4 th year	29	29
6.	Did you have experience of caring bed ridden patient		
	a. Yes	27	27
	b. No	73	73

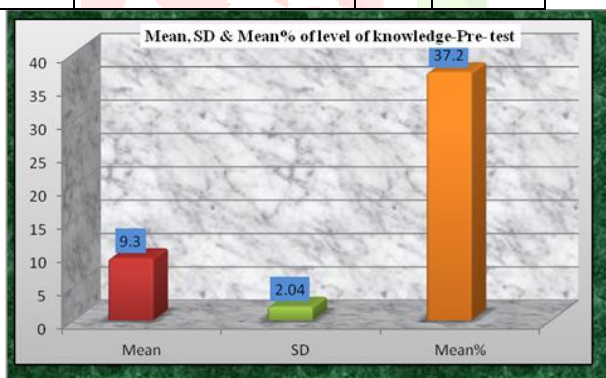
Percentage distribution of Level of Knowledge –Pre-test and Post test



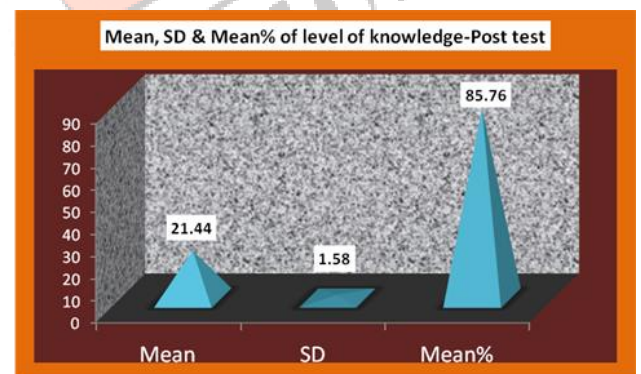
Percentage distribution of nursing students by their existing Level of knowledge – Pre test



Level of knowledge- post test



Percentage distribution of Mean, SD, Mean % of Pre-test knowledge



Percentage distribution of Mean, SD, Mean% of Post-test knowledge

RESULTS

The above tables show that maximum number of Nursing students 55(55%) belongs to 21-22 years, 45(45%) belongs to 18-20years and most of them are Females 72(72%), Males28(28%), majority of Nursing students belongs to Christians 53(53%), Hindu40(40%), muslim7(77%)

Others are 0(0.00%).About Medium of education18 (18%) had been Tamil medium,

28(28%) had English medium, 10(10%) had Hindi and 44(44%) had Malayalam medium. Here in Year of education 48(48%) nursing students belong to 2nd year, 23(23%) belong to 3rd year, 29(29%) belong to 4th year. Most of the Nursing students 73 (73%) have no experience of caring bed ridden patient and 27(27%) Nursing students have experience of caring bed ridden patient.

After the post test, comparison done between the existing Knowledge and the present Knowledge. In Pretest, 92 participants are having Inadequate Knowledge scores a percentage of 92%. 8 participants are having Moderate Knowledge scores 8% and no one is having Adequate Knowledge. In Posttest, no one is having Inadequate Knowledge. 1 participant score 1%

Demographic variables	No	%	Level of Knowledge				Chi square
			< Median (55)		≥ Median (45)		
			No	%	No	%	
1. Age (In Years)							
a. 18—20	45	45	26	47.3	19	42.2	0.25 1df NS
b. 21-22	55	55	29	52.7	26	57.8	
2. Sex							6.28* 1dfS
a. Male	28	28	21	38.2	7	15.6	
b. Female	72	72	34	61.8	38	84.4	
3. Religion							0.76 2df NS
a. Hindu	40	40	24	43.6	16	35.6	
b. Muslim	7	7	4	7.3	3	6.7	
c. Christian	53	53	27	49.1	26	57.8	
d. Others	-	-	-	-	-	-	
4. Medium of education							0 3df NS
a. Tamil	18	18	12	21.8	6	13.3	
b. English	28	28	14	25.5	14	31.1	
c. Hindi	10	10	7	5.5	7	15.6	
d. Malayalam	44	44	18	47.3	18	40.0	
5. Year of education							17.83 2df S*
a. 2 nd year	48	48	17	30.9	31	68.9	
b. 3 rd year	23	23	20	36.4	3	6.7	
c. 4 th year	29	29	18	32.7	11	24.4	
6. Experience of caring bed ridden patients							0.76 1df NS
a. Yes	27	27	13	23.6	14	31.1	
b. No	73	73	42	76.4	31	68.9	

* S- Significant at 0.05 level (P<0.05 level), NS – Not significant

Moderate Knowledge, 99 participants are having Adequate Knowledge. They score 99%.

Chi-square was calculated to find out the association between the Knowledge scores of the

Nursing students with their demographic variables. There is significant association for year of education with Chi square value of 17.83 and Sex with Chi Square Value of 6.28. Not significant for Age with Chi square value of 0.25, medium of education with 0 and experience of caring bed ridden patients with 0.76.

DISCUSSION

Findings revealed that the difference in Pre and Post-test Knowledge scores of Nursing students which shows significant difference between the overall scores. Hence the Hypothesis H₁ is accepted and it can be interpreted that the difference observed in the mean score of the pre and post score were true difference.

The analysis of association of selected socio demographic variables with level of Knowledge using χ^2 test revealed that there was significant association relationship between Knowledge regarding Braden Scale with the variables such as Sex and Year of education because they obtained value were more than the table values at 0.05 level of significance. So the research hypothesis H₂ is accepted and the null hypothesis is rejected.

CONCLUSION

- Knowledge regarding Braden Scale among 2nd, 3rd & 4th year BSc. (N) students was inadequate before the administration of PTP.
- The PTP was Effective in increasing the Knowledge of Nursing students i.e., overall aspects in the posttest scores were high compared to pretest scores.
- A paired 't' test result indicated a statistically significant difference between the pretest and posttest Knowledge score regarding Braden Scale for all the Knowledge aspects under investigation (p<0.05)
- A statistically significant association was observed in Sex and year of education with Knowledge level of respondent regarding Braden Scale, at 0.05 level of significance.

- Whereas there was no significant association between Age, religion, medium of Education and previous experience of caring bed ridden patients

Implication of the study

Nursing practice

Nursing students can play the key role in enhancement of Knowledge of Public regarding Braden Scale, which could change the attitude of public towards the bed ridden patient.

Nursing education

As a Nurse Educator, there are an abundant opportunity for nursing professionals to educate the nursing students regarding Braden Scale.

The study emphasizes significance of short term In Service education program for Nurses and peripheral health workers regarding Braden Scale

Nursing administration

The Nursing Administrator should take part in making of health policy, development of protocols and standing orders with respect regarding Braden Scale. The nursing administrator should concentrate on the proper selection, placement and effective utilization of the nurse in all areas giving opportunity for creativity, creating interest and enhance ability in educating the Braden Scale.

Nursing research

The finding of the study shows that majority of Nursing students had lack of Knowledge regarding Braden Scale. Based on this finding the researchers can conduct further studies on Awareness and Improvement of Knowledge of student regarding Braden Scale on large samples. The study will motivate the beginning researcher and to conduct studies with different variables on large scale.

Nursing Research can help to identify the existing Knowledge gap in the nursing profession. This will help to improve the quality and standard of Nursing care based on Evidence Based Practice.

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