“To assess the effectiveness of Structured Teaching Programme on knowledge and practice regarding use of Braden Scale on Pressure sore among Staff Nurses.”

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Abstract
Pressure ulcers are a common, expensive and painful health-care problem, with prevalence rates ranging from 3% to 66% in health-care organisations. Pressure ulcer is a major problem in acute care setting and long term care setting including bed ridden patients who are at home. Objectives of the study: To assess the level of knowledge regarding use of Braden scale on Pressure sore among Staff Nurses before and after administration of Structured Teaching Programme. To assess the practice regarding use of Braden scale on Pressure sore among Staff Nurses before and after administration of Structured Teaching Programme. To assess the effectiveness of Structured Teaching Programme regarding use of Braden scale on Pressure sore among Staff Nurses. To find out the correlation between the knowledge score and practice score. To find out the association between pre-test knowledge with selected demographic variables. To find out the association between the pre-test practice score with selected demographic variables. Methods: The research approach adopted for the present study was evaluative approach. In the present study, one group pretest posttest design was selected for the study. Purposive sampling technique was taken to select 60 Staff Nurses. Paired ‘t’ test is used to find the effectiveness of Structured Teaching Programme. Results: in pretest the mean percentage obtained by the respondents was 50 % with SD of 4.35 in the aspect of Knowledge regarding Pressure sore, 50.33% with SD of 2.31 in the aspect of Knowledge regarding Braden Scale & mean percentage obtained by the respondents is 45.71% with SD of 4.75 the aspect of Knowledge regarding subscales of Braden Scale. The mean percentage of overall knowledge obtained by the respondents is 47.14 % with SD of 2.4. the correlation between knowledge and practice regarding use of Braden Scale on Pressure sore was 2.4 and “t” for correlation was 4.99* (p<0.05). It indicated that the knowledge
and practice scores were positively correlated and it was found to be statistically significant at 0.05% level. There is no significant association between knowledge of Staff Nurses and demographic variables such as Age in years ($\chi^2 = 3.19$), Gender ($\chi^2 = 2.17$) Professional qualification ($\chi^2 = 0.87$), Experience ($\chi^2 = 3.19$), Area of work experience ($\chi^2 = 2.65$) and Attended any in service education ($\chi^2 = 0$) were not significant at 0.05 level. **Conclusion:** Many patients in hospital are at increased risk of Pressure Sore, and it is therefore important for nurses to understand the condition and how to recognize it. In the Nursing practice the education about the use of Braden Scale on Pressure sore helps for the integration of overall health care into intensive health care.

**Keywords:** Braden Scale, Pressure Sore, Staff Nurses, Effectiveness, Structured Teaching Programme.

**Introduction**

According to the Centers for Disease Control (CDC), as many as 1 out of 10 residents in nursing homes currently suffer from bedsores. Although this is alarming to many, this isn’t a new problem. For several decades, bedsores have been a prevalent problem in nursing homes throughout the United States. In many instances, bedsores are caused primarily from lack of attention and improper medical care in nursing homes. Bedsores are serious health concerns and once identified they need to be treated immediately. If a resident enters a nursing home with bedsores, it’s the responsibility of the nursing home to ensure the sores don’t get worse. Unfortunately, a good majority of residents who enter facility with bedsores don’t get the kind of quality medical attention needed. As a result, their bedsores increase and move on into the later stages of bedsores, which causes a whole new host of medical problems.$^{11}$

An average of approximately 50% of the hospitalized individuals has mobility impairment. Immobilization and inactivity are frequently present in patients with involvement of musculoskeletal, neurological system and also among critically ill patients. An immobilized individual is at a greater risk of developing Pressure sore.$^2$

Pressure sores not only cost money but also cause other problems like, add the length of stay at hospital and leads to loss in many ways. Initially, recovery and rehabilitation of patients who develop Pressure ulcer is delayed secondly, feeling of failure, disappointment and guilt is engendered in the nursing staff. When a Pressure sore develops it often carries the connate of
neglect and mismanagement in the nursing care of patients. Thirdly untreated Pressure sore will lead to systemic complications and nosocomial infection. Finally the country is affected in that, this phenomena prevents another citizen from using the hospital bed and delays potential tax payers return to his job. It is therefore imperative that the most vulnerable or high risk patients are recognized and the preventive plan is implemented immediately. “Prevention is better than cure”. The present National Health care to every individual, participation to the full extent and awareness of the health problem is needed. Prevention is a vital option which is recommended for tackling health problems.²

The Braden scale is a screening tool that is designed to identify patients who might develop a Pressure sore. The Agency for Health care Policy and Research [AHCPR] recommends that the patients who are bed fast or chair fast who cannot reposition themselves should be assessed for factors that increase risk of developing Pressure ulcers. The Pressure ulcer risk assessment scale should be used for all patients who are in critical care unit and other who are high risk for getting low score on Braden scale.¹³

Need of the study

Pressure ulcers, are increasingly common in U.S. hospitalizations. In 2006, there were 503,300 hospital stays during which Pressure ulcers were noted—a 78.9 percent increase from 1993 when there were about 281,300 hospital stays related to Unless otherwise noted, hospital stays occurring among persons less than 18 years old have been excluded from this analysis. During this same time period, the total number of hospitalizations increased by only 15 percent. Stays with a secondary diagnosis of Pressure ulcers increased by 86.4 percent during this period, while stays principally for Pressure ulcers increased by 27.2 percent. Adult hospital stays noting a diagnosis of Pressure ulcers totalled $11.0 billion in 2006.¹¹

According a report by the researches at the U S Agency for Health Care Policy and Research in 1992, nursing research has led to the development of Pressure ulcer prediction tools like Braden scale which has a good sensitivity 83 -100% and good specificity 64- 77% and a high (r = 0.99) reliability among registered nurses on medical–surgical and critical care step-down units.¹⁶
The investigator during his visit to a selected hospital at Udaipur found that the nurses in acute care setting are not much aware about the use of Pressure sore risk assessment scale and its importance. Though the nurses are following some of the protocol for preventing Pressure sore risk like changing the positioning, back care, use of water mattress and pneumonic devices; they are not performing a systematic assessment of the skin by using any other Calculators [or] assessment device for predicting Pressure sore risk and the nurses in hospital are not aware about the Pressure ulcer risk assessment scale and its importance in the prevention of Pressure sore.

Aim of the study

To assess the level of knowledge & practice regarding use of Braden scale on Pressure sore among Staff Nurses before and after administration of Structured Teaching Programme. To assess the effectiveness of Structured Teaching Programme regarding use of Braden scale on Pressure sore among Staff Nurses. To find out the correlation between the knowledge score and practice score. To find out the association between pre-test knowledge with selected demographic variables. To find out the association between the pre-test practice score with selected demographic variables.

Methodology:

The research design selected for the study was Experimental pre-test post-test design. Non-probability purposive sampling technique with 60 staff nurses was selected for the study. Self-structured knowledge questionnaire & observational checklist was used as tool to collect the data.

Reliability

The final tool is tested for reliability. The reliability of the tool is established by testing the stability using test retest method and internal consistency assessed by using split half technique and Spearman Brown Prophecy Formula. The internal consistency of structured knowledge questionnaire was assessed by split half method and is found to be 0.78. The internal consistency of observational checklist was assessed by split half method and is 0.7. It indicates that the tool is highly reliable.
Pilot study

The investigator conducted the pilot study in J.L.N Hospital, Ajmer. The sample size was 12. On 08/07/2019 & 09/07/2019 I have observed the samples by using an observation Checklist. On 10/07/2019 the structured teaching program was administered. On 11/07/2019 & 12/07/2019 again observed the samples by using an Observation Checklist. Posttest was done on 13/07/2019 with the same questionnaire to assess the knowledge level of the Staff Nurses regarding use of Braden Scale on Pressure Sore.

Result

Majority of the respondents 84 percent belongs to the age group of 20-25 years, 13 percent respondents to age group of 25-30 years, 3 percent belongs to the age group of 30-35 years and 0 percent belongs to the age group of > 35 years. 67 percent were males and 33 percent belongs to females. Majority of the respondents 78 percent were GNM, 12 percent were B.Sc, 10 percent were P.B.BSc. Majority of the respondents 84 percent belongs to < 1 years, 13 percent respondents belongs to 5-10 years, 3 percent respondents belongs to 10-14 years and 0 percent respondents belong to > 15 years. Majority of the respondents 40 percent belongs from medicine ward, 27 percent belongs to ICU, 18 percent belongs to emergency, and 15 percent respondents belongs to surgery ward. All respondents 100 percent have not attended any in service education on use of Braden Scale on Pressure sore

Effectiveness of Structured Teaching Programme by comparing pretest and posttest practice score of respondents

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Mean %</th>
<th>SD</th>
<th>Enhance ment %</th>
<th>Enhance ment %</th>
<th>df</th>
<th>t</th>
<th>Inference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td>6.08</td>
<td>50.66</td>
<td>1.49</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post test</td>
<td>8.75</td>
<td>72.91</td>
<td>1.36</td>
<td>2.67</td>
<td>22.25</td>
<td>59</td>
<td>11.12</td>
<td>S</td>
</tr>
</tbody>
</table>

Table 1: The result showed that the mean post test practice score is 8.75 (72.91%) is greater than the mean pre test practice score 6.08 (50.66%). The above table also depicts that the
enhancement in the practice of respondents is 2.67 (22.25%) supporting the posttest practice score are higher than the pretest practice score. The data further represent that the ‘t’ value of 11.12 is significantly higher than the table value 1.96 at 0.05 level of significance. This indicates that there was difference in pretest and posttest practice score of respondents and Structured Teaching Programme is effective in improving the practice score of Staff Nurses on use of Braden Scale on Pressure sore.

Figure: Distribution of Respondents by Age in Years

Correlation between knowledge and practice scores of the Staff Nurses

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Mean</th>
<th>SD</th>
<th>Correlation</th>
<th>“t” for correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>16.03</td>
<td>2.81</td>
<td></td>
<td></td>
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</table>
Table 2 reveals that the correlation between knowledge and practice regarding use of Braden Scale on Pressure sore was 2.4 and “t” for correlation was 4.99* (p<0.05). It indicated that the knowledge and practice scores were positively correlated and it was found to be statistically significant at 0.05% level.

There is no significant association between practice of Staff Nurses and demographic variables such as Age in years ($\chi^2=3.19$), Gender ($\chi^2=2.17$) Professional qualification ($\chi^2=0.87$), Experience ($\chi^2=3.19$), Area of work experience ($\chi^2=2.65$) and Attended any in service education ($\chi^2=0$) were not significant at 0.05 level. Hence the research hypothesis is rejected and null hypothesis is accepted at 0.05 level of significance.

**Discussion**

In the present study majority of the respondents 84 percent belongs to the age group of 20-25 years, 13 percent respondents to age group of 25-30 years, 3 percent belongs to the age group of 30-35 years and 0 percent belongs to the age group of > 35 years. Majority of the respondents 78 percent were GNM, 12 percent were B.Sc, 10 percent were P.B.BSc. The level of knowledge among Staff Nurses regarding use of Braden Scale on Pressure sore was assessed in pre-test out of 60 respondents 67% had inadequate knowledge, 33% Staff Nurses had moderate knowledge. The level of knowledge among Staff Nurses regarding use of Braden Scale on Pressure sore were assessed that in post-test out of 60 respondents 68% had moderate knowledge and 32% had adequate knowledge. The mean difference 8.47 between pre-test and post-test knowledge score of the Staff Nurses was found to be significant. The overall mean of pre-test practice among Staff Nurses regarding Staff Nurses on use of Braden Scale on Pressure sore was 6.08 with standard deviation of 1.49 and mean of post-test was 8.75 with standard deviation of 1.36. The correlation of the Staff Nurses knowledge and practice with regard to prevention of Pressure sore was $r=2.4$ and “t” for correlation was 4.99 (p<0.05). There was no significant association between practice of Staff Nurses and demographic variables such as Age in years ($\chi^2=3.19$), Gender ($\chi^2=2.17$) Professional qualification ($\chi^2=0.87$), Experience ($\chi^2=$...
3.19), Area of work experience ($\chi^2 = 2.65$) and Attended any in service education($\chi^2 = 0$) were not significant at 0.05 level.

**Conclusion**

In the Nursing practice the education about the use of Braden Scale on Pressure sore helps for the integration of overall health care into intensive health care. Nursing Schools, Colleges and teachers should come forward and encourage the students to provide information on use of Braden Scale on Pressure sore. Nurse administrator needs to encourage and plan for staff development programme related to use of Braden Scale on Pressure sore to increase the nurses’ knowledge and they become skilled. The implication of use of Braden Scale on Pressure sore among nurses enhances the quality assurance.

**Conflict of interest**- The authors certify that they have no involvement in any entity with any financial/ non-financial interest in the subject matter or materials discussed in this paper.

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