



A Study To Assess The Effectiveness Of Structured Teaching Programme On Knowledge Regarding Use Of Braden Scale On Prevention Of Pressure Ulcer Among Staff Nurses Working At NMCH, Jamuhar, Bihar

Nikee Minz¹, Anushka Raj², Sandhya Patel³, Dhiraj Kumar⁴, Rahul Kumar⁵, Nikhil Kumar Ranjan⁶,
Sumitra Kumari⁷

¹Associate Professor, Department of Medical Surgical Nursing, Narayan Nursing College, Gopal Narayan Singh University, Jamuhar, Rohtas, Sasaram (Bihar)

²⁻⁶Basic B. Sc. Nursing 4th Year Student, Narayan Nursing College, Gopal Narayan Singh University, Jamuhar, Rohtas, Sasaram (Bihar)

Abstract- Background: Pressure ulcer is common in a variety of patient setting and is associated with adverse health outcomes and high treatment costs. A Pressure sore (or Bed-sore) is an injury to the skin and tissue under it, and caused usually by unrelieved Pressure, constant Pressure against the skin which reduces the blood supplies to that area and the affected tissue will be necroses. The Braden scale is a widely used pressure risk assessment tool with highly satisfactory reliability 0.99 when used by registered nurses. The present study focused on assessment of the knowledge level of staff nurses on prevention of pressure ulcer by using Braden scale. Objectives: To assess the pre-test and post-test level of knowledge on prevention of pressure ulcer by using Braden Scale. To assess the effectiveness of the structured teaching program. To associate the pre-test level of knowledge with the selected socio demographic variables. **Materials and Method:** A pre experimental one group pre-test post-test design was used. In this study all the subjects were selected by convenience sampling technique and assessed pre-test knowledge level with structured questionnaire, all the respondents had poor practice of pressure ulcer risk assessment and its prevention. Administered structured teaching program on use of Braden scale on prevention of pressure ulcer and post assessment was done. The structured knowledge questionnaires was prepared containing a set of questions, were being filled by the researcher, the investigator collected the data from 60 staff nurses who working in Narayan Medical College and Hospital Jamuhar, Rohtas. **Results:** Out of 60 samples, the overall pre-test knowledge scores of staff nurses were 3 (5%) had good knowledge, 45 (75%) had average knowledge, 12 (20%) had poor knowledge. Whereas, in post-test, maximum staff nurses 48 (80%) had good knowledge, 12 (20%) had

average knowledge scores and none of them had poor knowledge regarding use of Braden scale in predicting pressure sore risk. There was significant gain in knowledge score who were exposed to structured teaching programme i.e. 75%. The paired 't' test value ($t_{cal}=16.42$) was greater than the stated hypothesis i.e. mean post-test knowledge scores of staff nurses who have been exposed to structured teaching programme will be significantly higher than the mean pre-test knowledge scores at 0.05 level of significance. It was found that there was no significant association between knowledge scores of staff nurses with selected socio demographic variables. **Conclusion:** Majority of staff nurses had poor knowledge regarding use of Braden scale on prevention of pressure ulcer. Structure teaching program is utilized in this study was effective in improving the level of knowledge regarding use of Braden scale on prevention of pressure ulcer.

Keywords- Structured Teaching Programme, Knowledge, Braden Scale, Prevention of Pressure ulcer, Staff Nurses

Introduction

Pressure ulcer also known as pressure sores, decubitus ulcers and bedsores and are now referred to as pressure injuries, pressure ulcers are localized damage to the skin and underlying tissue that usually occur over a bony prominence as a result of pressure or pressure in combination with shear and friction. The most common sites are the skin overlying the sacrum, coccyx, heels, or the hip, but other sites such as the elbows, knees, ankles, back of shoulders, or the back of the cranium can be affected. Pressure ulcer can be prevented by assessing the risk factors like poor blood circulation, immobility, poor nutrition, rubbing or friction.

As a staff nurses, we have a great role in preventing pressure ulcer when the patient is bed ridden by position changing, maintaining their nutritional pattern, maintain good skin integrity and assessing the pressure points for early diagnosis of pressure ulcer. The use of Braden Scale by staff nurses for predicting pressure ulcer risk was developed to foster early identification of patients at risk for forming pressure ulcers. The scale is composed of six subscales that reflect sensory perception, skin moisture, activity, mobility, friction and shear, and nutritional status.

Need of the Study

Pressure ulcer has been a significant problem because it is occurred in every healthcare setting such as hospitals, nursing homes, and hospice and even at homes. More than one million individuals develop pressure ulcers each year. It is estimated that 11% of residents in skilled-care and nursing homes facilities suffer from Pressure ulcers, 10% in acute care, and 4.4% in home care. In hospitals, the incidence of Pressure ulcers ranges from 2.7% to 29.5%. According to the journal, Pressure ulcers negatively affect a patient's quality of life and are associated with an increased incidence of medical complications, infection, and death. Every year an estimated 60,000 people die from complications related to Pressure ulcers.

The Braden scale is a widely used pressure risk assessment tool with highly satisfactory reliability 0.99 when used by registered nurses. Present study focused on assessment of the knowledge level of staff nurses on prevention of pressure ulcer by using Braden scale. The purpose of the scale is to help health professionals, especially nurses, assess a patient's risk of developing a pressure ulcer. Many studies have shown positive correlation on identification and management of pressure ulcers by trained nursing staff. Nurses are the primary concerns in wound care. Patient should be assessed for pressure ulcer risk initially on admission and at periodic intervals based on the patient's condition and care setting.

Statement of the Problem

“A study to assess the effectiveness of structured teaching programme on knowledge regarding use of Braden scale on prevention of pressure ulcer among staff nurses working at NMCH, Jamuhar, Bihar.”

Objectives of the Study

1. To assess the pre-test and post-test level of knowledge on prevention of pressure ulcer by using Braden Scale.
2. To assess the effectiveness of the structured teaching program.
3. To associate the pre-test level of knowledge with the selected demographic variables.

Hypothesis

H₁: - There will be a significant difference between the pre-test and post-test level of knowledge scores among staff nurses at 0.05 level of significance.

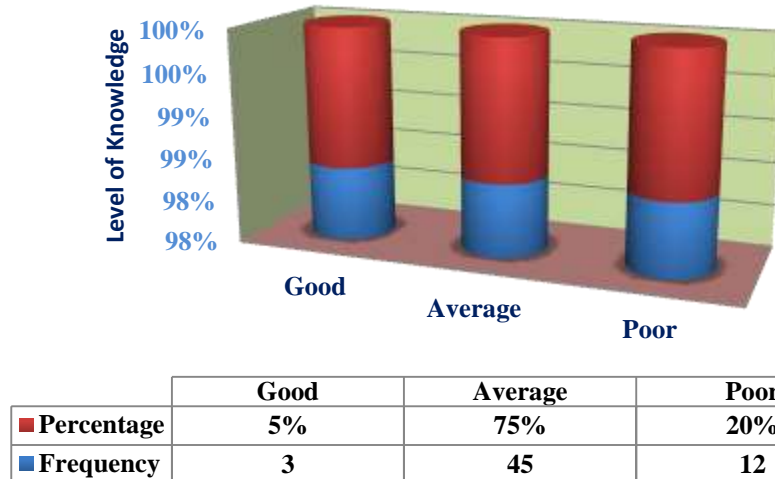
H₂: - There will be a significant association of pre-test level of knowledge scores socio demographic variables among staff nurses.

Materials and Methods

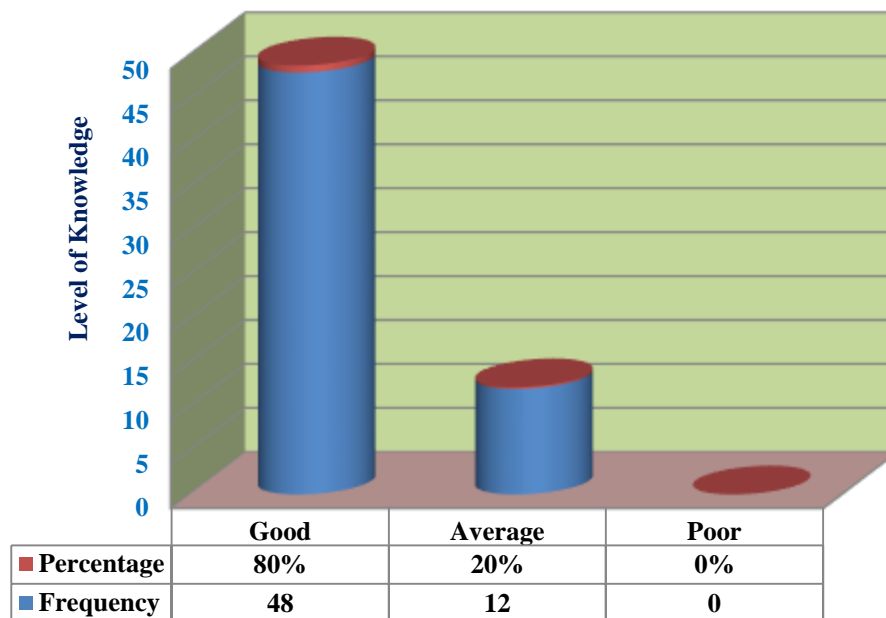
A quantitative research approach using pre experimental one group pre-test post-test design was used. In this study 60 staff nurses were selected using non probability convenience sampling technique. The structured knowledge questionnaires was prepared containing a set of questions, were being filled by the researcher, the investigator collected the data from staff nurses working in Narayan Medical College and Hospital Jamuhar, Rohtas. The pre-test knowledge level was assessed, and majority of respondents had poor practice of pressure ulcer risk assessment and its prevention. The structured teaching program was administered to staff nurses on use of Braden scale on prevention of pressure ulcer and post assessment was done.

Result

Out of 60 samples, the overall pre-test knowledge scores of staff nurses were 3 (5%) had good knowledge, 45 (75%) majority had average knowledge, 12 (20%) had poor knowledge regarding use of Braden scale among staff nurses on prevention of pressure ulcer.

Fig. 1: Pre-Test Knowledge Scores on use of Braden Scale

Whereas, observing post-test scores, maximum staff nurses 48 (80%) had good knowledge, 12 (20%) had average knowledge scores and none of them had poor knowledge regarding use of Braden scale among staff nurses on prevention of pressure ulcer.

Fig. 2: Post- Test Knowledge Scores on use of Braden Scale

The pre-test mean value was 14.5 with a standard deviation of 4.5 and the post-test mean value of 24.87 and standard deviation of 3.94. On conducting paired t-test between the pre-test and the post-test level of knowledge the $t=16.42$, $df=59$ and $p=0.0001$ which shows that the test was extremely statistically significant at $p<0.05$. There was significant gain in knowledge score who were exposed to structured

teaching programme i.e. 75% i.e. mean post-test knowledge scores of staff nurses who have been exposed to structured teaching Programme will be significantly higher than the mean pre-test knowledge scores at 0.05 level of significance. Hence, the research hypothesis H_1 was accepted because this indicates that the structured teaching program is effective to enhance the knowledge level on prevention of pressure ulcer by using Braden scale among staff nurses.

Pre-test		Post-test		Paired T-test
Mean	SD	Mean	SD	
14.5	4.5	24.87	3.94	$t=16.42$ $df=59$ $p=0.0001$ *Extremely statistically significant

The association between the pre test level of knowledge and socio demographic variables regarding age, gender, qualification, clinical experience, and clinical working area using chi –square test to associate the level of knowledge of staff nurses regarding use of Braden scale on pressure ulcer. The chi square value revealed that there was no significant association found at the 0.05 level of significance.

Conclusion

Pressure ulcer is one of the most common problems for patients who are admitted for a long time. The main aim of the study is to assess the effectiveness of structured teaching program on prevention of pressure ulcer by using Braden scale among staff nurses. Majority of staff nurses had poor knowledge regarding use of Braden scale on prevention of pressure ulcer. The 'T' test is done to find the effect of structured teaching programme. It revealed that there is highly significant gain of knowledge after the administration of intervention. Structure teaching program is utilized in this study was effective in improving the level of knowledge regarding use of Braden scale on prevention of pressure ulcer.

Funding

No Funding received.

Conflict of Interest

No conflict of interest found.

References

1. C. R. Georg. "Pressure ulcer risk assessment": Nursing and Health Science Journal. March 2023 volume 4 Production KHD: <https://hbsjournals.com>. DOI No: - <https://org/1053713nhsj>.
2. Chongtham Rebika. "International Journal of Nursing Education and Research". 2023. Volume-12. Issue 11. DOI: - 10.82711/2454-2660. <https://jneronline.com>.
3. Guerro. J G. "Nurses knowledge regarding pressure ulcer prevention in intensive care unit". National Library of Health Science. Volume-9 Year 2023. DOI:-10.1177112377960823117. <https://nhs->

journals>nhs

4. Kocasli Seema. "A cross-sectional study on the prevalence of the PV prevention among bed ridden patient." International Journal. Vol: -10. Issue: 4. Year 2023. <http://interjournonline.gov.com>.
5. H. Gedamu. "Level of nurses of prevention of pressure ulcer". National Institute of Health and Science. Volume-10 Issues-4. Year- 2021. <https://www.ncbi.nlm.nih.gov>. DOI:-10.1016/J.heliyon2021.e07648
6. Pagnaban Sashivarni. "Knowledge regarding pressure ulcer prevention among staff nurses, Gangtok. 2021. vol-4 issue: -1. <https://www.researchgate.com>. DOI No: - 10.33545/nursing. 2021
7. Murgial Sarma. "The knowledge of pressure ulcer among nursing staff": International conference of healthcare and allied science. Page no: - 41 – 45 volumes: - 30 Issue 5. DOI - 10. 101611.j. 2020. Elsevier. <https://www.elsevier.es>.
8. Pakhide Vandana. "Effectiveness of the clinical teaching programme on the PV prevention." The International journal of advantage in nursing management. Vol: - 7. Issue-3. Year: -2020 <http://ijanm.com/abstractview>. 2020-7-3-12
9. Thapa Rajni "The prevalence of the pressure ulcer among the bed ridden patient and the attitude of the staff nurses towards PV prevention. International Journal of Research Centre. Vol: -2 Issue: -4. Year 2020. <http://jouronline.org.gov.com>.1036.
10. J. Linda. "Pressure ulcer risk assessment incidence and prevalence". International Journal of Nursing Research. Volume – 4. Issues 5. Year 2019. <https://www.ncbi.nlm.nih.gov>.

