



TO EVALUATE THE EFFECTIVENESS OF VIDEO ASSISTED TEACHING ON KNOWLEDGE REGARDING PREVENTION OF PRESSURE ULCER USING BRADEN SCALE AMONG STAFF NURSES IN SELECTED HOSPITALS.

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ABSTRACT

Background: Pressure ulcers are the common conditions among patients hospitalized in acute and chronic care facilities and impose a significant burden on patients, their relatives and caregivers. 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. Each category is rated on a scale of 1 to 4. **Objectives:** To assess the pre-test level of knowledge regarding prevention of pressure ulcer using Braden scale among staff Nurses in selected hospital. To assess the post-test level of knowledge regarding prevention of pressure ulcer using Braden scale among staff Nurses in selected hospital. To evaluate the effectiveness of Video Assisted Teaching on knowledge regarding prevention of pressure ulcer using Braden scale among staff Nurses in selected hospital. To associate the study findings with selected demographic variables. **Study design & methodology:** Pre experimental one group pre-test post-test research study design will be used. A cross sectional study will be carried out. Sample size was calculated to be 60 using the formula. The knowledge of Staff Nurses will be assessed by using validated self-structured questionnaire. **Expected Result:** Satisfactory improvement will be elicited in knowledge score after administration of intervention regarding prevention of pressure ulcer using Braden scale among staff Nurses through Video Assisted teaching. **Limitation:** The study will be limited to staff Nurses in selected geographical areas. **Conclusion:** The study findings will be contributed to the existing body of knowledge regarding prevention of pressure ulcer using Braden scale and explain about the intervention i.e. effectiveness of Video assisted teaching.

KEYWORDS : Video assisted teaching, prevention of pressure ulcer, Braden scale.

INTRODUCTION:

Pressure ulcers remain the key complications of prolonged hospitalization, especially in poor nutritional conditions, increased moisture on the skin, prolonged pressure, and sensory stimulation compromised.¹ Pressure ulcers are a major problem, but the implementation of best practice guidelines can prevent ulcers from occurring².

According to statistics for the 2023 Pressure Ulcers Treatment market share, size and revenue growth rate, created by Mordor 33 Intelligence Industry Reports (MIIR). The pressure ulcers treatment market was valued at USD 4,493.75 million in 2021, and it is expected to reach USD 6,375.58 million by 2027, registering a Compound Annual Growth Rate (CAGR) of 6.24% during the period of 2022-2027. According to the Centers for Disease Control and Prevention (CDC) in August 2020, around one in 10 seniors with limited mobility developed bedsores. This factor will be contributing to the market growth. Additionally, as per the data published by the United States Department of Health and Human Services (USDHHS) in 2020, around 2.5 million people in the United States were affected by pressure ulcers every year. Moreover, the treatments for these ulcers cost more than around USD 9.1-11.6 billion every year in the United States.³

Globally pressure ulcer incidence rate showed in the heterogeneity of studies was investigated using the I2 statistic. Data were analyzed using the R and Stata software (version 14). In this study, 35 studies were included in the final analysis. The results showed that the pooled estimate of the incidence rate of pressure ulcer was 12% (95% CI: 10-14). In Indian setting, the prevalence of pressure ulcers in hospitalized patients has been reported to be 4.94%. Pressure ulcers are the third most costly disease after cancers and cardiovascular diseases. The mortality rates from this disease are 2 to 6 times as much as from other diseases, with 60,000 deaths annually due to this 34 complication. The pressure ulcers have different classifications one of which has been proposed by the

National Council/HSE Wound Conference Oral presentation according to which ulcers are classified into three categories, the most common type of which is the type one with the prevalence rate of approximately 44%. The incidence of pressure ulcer is different in the clinical setting, but its incidence rate ranges from 4% to 38% in hospitalization wards and the mortality rate due to pressure ulcers and its associated secondary complications among the elderly is approximately 68%. In the USA, about \$11 billion is spent annually by the healthcare system for the prevention and treatment of pressure ulcers. In the UK, 4% of the total treatment costs are allocated for the treatment of pressure ulcers. These ulcers also cause the Nursing staff an increase in workload by 50%. The assumption that external pressure is the only cause of pressure ulcers has led to ignoring other pathogenic causes of pressure ulcers, which usually lead to failure of the prevention and treatment process. Therefore, identifying the causative agents and preventive measures may lead to implementing more effective interventions. In order to deliver better Nursing care and to reduce the incidence of pressure ulcers, it is important to study its incidence rate and the factors influencing it in different wards, as well as to identify the factors that cause early diagnosis and prevention of the complication and to teach the Nursing staff.⁴ Suma K et.al. (2021) conducted a study to evaluate the Effectiveness of Structured Teaching Programme (STP) on Knowledge Regarding Use of Braden Scale for Predicting Pressure Sore Risk among Student Nurses. The study concluded that structured teaching programme was more effective for student Nurses to increase the knowledge regarding use of Braden scale in predicting pressure ulcer risk.⁵

Amany El-berdan et.al (2022) conducted a study, Impact of a Pressure Ulcers Instructional Program on Nurses Performance and Patient Outcomes. From the study it was concluded that the educational programme is very helpful in enhancing knowledge and practice for Nurses in intensive care units, as

well as patient outcomes.⁶

Samia Gaballah et.al. (2021) conducted a study to investigate the effect of Pressure injury care program on Nurses performance and patients pressure injury wound healing outcomes. It was concluded that Pressure injury educational program could improve Nurses performance as well as Pressure injury wound healing among cared patients.⁷

Satish B Nadagaddi et.al. (2018) conducted a study which at 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. 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 it is recommended that 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.⁸

Nefsu Awoke et. al.(2022) conducted a study on Pressure injury prevention practice and associated factors among Nurses at Hospital, The study concluded that majority of Nurses reported having a limited level of pressure injury prevention practice. Since pressure ulcer prevention practice is majorly the role of Nurses. Upgrading the educational level of the nurses through continuous professional development opportunities can improve the preventive practice of pressure ulcer injury by increasing the knowledge and skill gained during the vocational training.⁹

Objectives:

- 1) To assess the pre-test level of knowledge regarding prevention of pressure ulcer using Braden scale among staff Nurses in selected hospital.
- 2) To assess the post-test level of knowledge regarding prevention of pressure ulcer using Braden scale among staff Nurses in selected hospital.
- 3) To evaluate the effectiveness of Video Assisted Teaching on knowledge regarding prevention of pressure ulcer using Braden scale among staff Nurses in selected hospital.
- 4) To find association of study findings with selected demographic variables.

Hypothesis:

H₀ - There is no significant difference between pretest and posttest knowledge score regarding prevention of pressure ulcer using Braden scale among Staff Nurses in selected hospitals. H₁ - There is significant difference between pretest and posttest knowledge score regarding prevention of pressure ulcer using Braden scale among Staff Nurses in selected hospitals.

MATERIAL AND METHODS:

Study Design: Pre experimental one group pre- test, post-test design.

Study Setting: Selected hospitals.

Participants: Staff Nurses

Sample Size Calculation:

Sample size: 60 subjects

$$n = \frac{Z^2 P(1-P)}{d^2}$$

Where

Z: statistics for a level of confidence. (For the level of confidence 95%, which is conventional, Z value is 1.96).

P: expected prevalence or proportion. (P is considered 0.5)

d: precision, (d is considered 0.05 to produce good precision and smaller error of estimate)

Z = 1.96

P = Proportion of Nurses had good knowledge = 3.3% = 0.033
E = Desired error of margin = 5% = 0.05

$$n = \frac{1.96^2 * 0.033 * (1 - 0.033)}{0.05^2}$$

= 49.03

Dropout 10% = 5

Total subjects required = 60 (including dropout)

N = 60

Sampling Technique: Non probability convenience sampling technique.

Inclusion Criteria: Nurses who are willing to participate in study.

Exclusion Criteria: Staff Nurses who have undergone any training programme on prevention of pressure ulcer using Braden scale.

Data Collection Tool:

Section- A It consists of demographic profile of the Staff Nurses i.e. Age, gender, professional education, area of practice, clinical experience, and previous knowledge of Braden scale.

Section-B It includes self-structured questionnaire on knowledge regarding prevention of Pressure ulcer using Braden scale.

Knowledge Assessment:

Staff Nurses knowledge will be assessed by pre and post-test using self-structured knowledge questionnaire. Validity and reliability of tool and Video will be assessed by experts in the field with appropriate statistical measures. Validity over the questionnaire will be established for build up through both the construct & content manner to seek for the results what has intended purposely for the inferences & conclusion to measure. Knowledge assessment will consider poor if the score is < 20 %, Average if it is 21% to 40 %, and Good if it is 41% to 60%, Very Good if it is 61%-80%, Excellent if it is >81%.

Description Of Intervention:

The Researcher will develop a Video regarding prevention of Pressure ulcer using Braden scale which will be validated by expert of nursing, medical field and cardiology, which will be then provided to the participants and further analysis will be done to evaluate the effectiveness of Video. Pre-test and post-test will be conducted to assess the effectiveness.

Study Procedure And Data Collection:

The study will be conducted only after the approval of IEC. Investigators will visit the research area and will obtained the necessary permission from the concerned authorities. Staff Nurses who fulfill inclusion criteria shall be assigned to the study. Researcher will explain the purpose of the study, take informed written consent and pre-test will be administered to the participants. Video assisted teaching will be administered to the Staff Nurses.

Researcher will explain to participant regarding date and time of post-test, as per preplanned date and time, researcher will again visit study areas and administer post-test on 7th day. Validity over the questionnaire will be established for build up through both the construct & content manner to seek for the results what has intended purposely for the inferences & conclusion to measure. Reliability of the questionnaire will be calculated by using appropriate statistical test.

Data Analysis:

All results will be calculated using SPSS version

26. Overall results for the outcome variables will be listed in tables and graphs for both descriptive (Mean, mean percentage, Standard deviation), & inferential statistics (Paired t - test will be used to find the significance difference between two groups (before & after), Association results will be analyzed using chi square analysis).

Expected Results:

Expected improvement in the knowledge will be about 30 to 70 % after administration of an intervention. Video Assisted Teaching will improve the knowledge regarding prevention of pressure ulcer using Braden scale among Staff Nurses. So, it is the responsibility of the hospital administrators to organize continuing education and training for nurses regarding Braden scale and also aware those regarding new guidelines on Braden scale so as to maintain high level of health care in hospitals and also encourage nurses to carry more and more researches on it. The findings of this study will have implications for the various areas of Nursing field.

DISCUSSION:

Findings of present study will supported by previous studies where trending technological modes are effective in information transfer and improving knowledge.

CONCLUSION:

The findings of this research will contribute to the existing body of knowledge regarding prevention of pressure ulcer using Braden scale. In a view of this fact, present study aims to evaluate the effectiveness of video assisted teaching on knowledge regarding prevention of pressure ulcer using Braden scale among staff Nurses in selected hospitals.

Consent And Ethical Approval:

The study will be conducted after approval of Institutional Ethics Committee. Written consent will be taken from the participants for participation in the study. Throughout the Study, confidentiality will be maintained. Freedom to withdraw from the study at any point of time will be assured. The study's findings will be disseminated to participants and published in a peer-reviewed journal.

Conflict Of Interest: There is no conflict of interest in this study. No any risk factors to the subjects of the study.

REFERENCES:

1. Mwebaza, L., Katende, G., Groves, S., & Nankumbi, J. (2014). Nurses' knowledge, practices, and barriers in care of patients with pressure ulcers in a Ugandan teaching hospital. *Nursing Research and Practice*, 2014, 1–6. <https://doi.org/10.1155/2014/973602>
2. Barker, A. L., Kamar, J., Tyndall, T. J., White, L., Hutchinson, A., Klopfer, N., & Weller, C. (2012). Implementation of pressure ulcer prevention best practice recommendations in acute care: An observational study. *International Wound Journal*, 10(3), 313–320. <https://doi.org/10.1111/j.1742-481x.2012.00979.x>
3. Pressure ulcers treatment market - growth, trends, covid19 impact, and forecasts (2023 - 2028) <https://www.mordorintelligence.com/industry-reports/pressure-ulcers-treatment-market>
4. Atzali Borojeny L, Albatineh AN, Hasanpour Dehkordi A, Ghanei Gheshlagh R. The Incidence of Pressure Ulcers and its Associations in Different Wards of the Hospital: A Systematic Review and Meta- Analysis. *Int J Prev Med*. 2020 Oct 5;11:171. doi: 10.4103/ijpvm.IJPVM_182_19. PMID: 33312480; PMCID: PMC7716611.
5. Suma K, Peerapur SM, Rose SK. A Study to Evaluate the Effectiveness of Structured Teaching Programme (STP) on Knowledge Regarding Use of Braden Scale for Predicting Pressure Sore Risk Among Student Nurses in KLEs Institute of Nursing Sciences, Hubballi. *Int J Rec Innov Med Clin Res*. 2021;3(3):7-13.
6. Amany El-berdan, Fatma Mohamed Elesawy, Mohamed Ibrahim Jahan. Impact of a Pressure Ulcers Instructional Program on Nurses' Performance and Patient Outcomes. *The Malaysian Journal of Nursing [Internet]*. 2022 Apr. 1 [cited 2023 Mar. 26];13(4):25-33. Available from: <https://ejournal.lucp.net/index.php/mjn/article/view/1555>.
7. Samia Gaballah, and Dalia Salah El-Deen, "Pressure Injury Care Program Effects on Nurses' Performance and Patients' Pressure Injury Wound Healing Outcomes." *American Journal of Nursing Research*, vol. 9, no. 3 (2021): 76-84. doi:10.12691/ajnr-9-3-2.
8. Satish B Nadagaddi., Basheerahamed J Sikandar., Shalmon Chopade and Appangouda P; 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 *International Journal of Current Advanced Research* ISSN: O: 2319-

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9. Awoke N, Tekalign T, Arba A, Lenjebo TL. Pressure injury prevention practice and associated factors among nurses at Wolaita Sodo University Teaching and Referral Hospital, South Ethiopia: a cross-sectional study. *BMJ Open*. 2022 Mar 14;12(3):e047687. doi: 10.1136/bmjopen-2020-047687. PMID: 35288379; PMCID: PMC8921857.