Walden University
ScholarWorks

Walden Dissertations and Doctoral Studies
Walden Dissertations and Doctoral Studies Collection

1-22-2026

Teaching Staff about Pressure Ulcers

Ann Maria Stewart
Walden University

Follow this and additional works at: https://scholarworks.waldenu.edu/dissertations

Part of the Nursing Commons

This Dissertation is brought to you for free and open access by the Walden Dissertations and Doctoral Studies Collection at ScholarWorks. It has been accepted for inclusion in Walden Dissertations and Doctoral Studies by an authorized administrator of ScholarWorks. For more information, please contact ScholarWorks@waldenu.edu.

Walden University

College of Nursing

This is to certify that the doctoral study by

Ann Maria Stewart

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee
Dr. Deborah Lewis, Committee Chairperson, Nursing Faculty

Chief Academic Officer and Provost Sue
Subocz, Ph.D.

Walden University
2025

Executive Summary: Staff Education Project

Teaching Staff about Pressure Ulcers

by

Ann Maria Stewart

MSN, Walden University, November 2021

BSN, Walden University, January 2020

Executive Summary Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

Walden University

August 2025

Summary

Pressure ulcers are local injuries to the skin and underlying tissue primarily caused by prolonged pressure, friction, or shear forces. These preventable complications are prevalent among immobile patients and can lead to poor patient outcomes and increased healthcare costs. Despite the availability of evidence-based prevention strategies, significant gaps in practice continue due to limited staff knowledge, ineffective communication systems, and inconsistent implementation of established guidelines. This Doctor of Nursing Practice (DNP) project focused on enhancing nursing staff knowledge through an evidence-based educational strategy designed to educate staff on strategies for preventing pressure ulcers. The education program included a PowerPoint presentation as well as a role-play case study. A pre-posttest design was used to assess staff knowledge. Twelve staff members participated in the education program, including nine nursing assistants and three nurses. The intervention demonstrated an improvement in staff knowledge related to pressure ulcer prevention strategies. Pre-intervention test scores averaged 70%, while post-intervention scores increased to 95%. The normalized learning gain was calculated at 84%, indicating that the educational intervention improved staff knowledge. By educating staff on consistent utilization of validated assessment tools such as the Braden Scale, implementing proper documentation protocols, conducting systematic daily skin assessments, and applying evidence-based prevention strategies, healthcare organizations can support social change by improving patient care quality and reducing the incidence of hospital-acquired pressure injuries (HAPIs). The results also support continued use of comprehensive staff training programs to enhance patient safety, reduce healthcare costs, and achieve established quality care standards.

Background

Pressure ulcers represent painful, preventable conditions that can severely compromise a patient's quality of life, functional status, and overall health outcomes. When inadequately managed or prevented, these wounds can progress to serious complications, including deep tissue infections, sepsis, extended hospital stays, and substantially increased healthcare costs (Roussou et al, 2023). Additionally, poor patient outcomes associated with pressure ulcer development may negatively impact a healthcare organization's reputation, regulatory compliance, and potentially result in significant legal and financial consequences (Roussou et al, 2023).

Gap in Practice

The identified gap in clinical practice relates to the inconsistent application of evidence-based pressure ulcer prevention strategies among staff working with elderly patients in a nursing home setting. Multiple factors contribute to this practice gap, including insufficient knowledge of current evidence-based guidelines, inadequate staffing ratios that limit time for comprehensive patient assessments, and poor communication systems that impede effective care coordination (Kim et al, 2022). Lavallée et al. (2019) found that patients in nursing home environments are particularly vulnerable to pressure ulcer development due to chronic staffing shortages and limited resources. This DNP project aimed to develop an educational intervention that would promote regular systematic skin assessments, appropriate hygiene practices, evidencebased positioning strategies, and comprehensive documentation to help mitigate these risks and improve patient outcomes.

DNP Project Question

The approach of this DNP project was to enhance staff knowledge through the implementation of an evidence-based educational program. The education program emphasized the utilization of validated assessment tool, the Braden Scale, hygiene and positioning, and systematic daily skin assessments to ensure consistent, quality patient care. As Han et al. (2024) observed, implementing best practices helps bridge the gap between current clinical practices and optimal patient outcomes. This project aimed to empower nursing staff with the essential skills and evidence-based knowledge necessary to effectively prevent pressure ulcers and improve patient care quality. The DNP project question guiding this project was: "Will a staff education program focused on evidencebased pressure ulcer prevention strategies increase nursing staff knowledge?"

Literature

Multiple risk factors contribute to pressure ulcer development, including patient immobility, prolonged bed rest, intensive care unit stays, incontinence, diabetes mellitus, compromised nutritional status, advanced age, and altered sensory perception (Han et al., 2024). Patients who develop pressure ulcers require comprehensive, individualized care plans that address wound treatment protocols, prevention of further tissue breakdown, and optimization of healing conditions (Han et al., 2024).The expected timeframe for wound healing cannot always be accurately predicted, as patients with diabetes or other comorbid conditions may experience significantly delayed healing processes (Elli et al, 2022). Effective communication among all healthcare team members is essential to maintain awareness of patient status changes and ensure that appropriate treatment

modalities are implemented to prevent delays in wound healing and optimize patient outcomes (Han et al, 2024).

Klaas and Serebro (2024) emphasized that nursing staff play a fundamental role in maintaining patient safety, particularly in implementing effective pressure ulcer prevention strategies. A comprehensive, systematic approach to educating nurses is essential for enhancing their clinical knowledge, improving attitudes toward evidencebased care, and promoting consistent implementation of prevention protocols. Educational strategies that effectively integrate staff knowledge regarding pressure ulcer prevention into routine clinical practice can ultimately lead to sustained reductions in hospital-acquired pressure injury rates and improved patient outcomes (Coventry et al., 2024).

Seo and Roy (2020) emphasized that nurses play a critical role in implementing and monitoring evidence-based prevention strategies. Key prevention measures include frequent, systematic repositioning of patients, utilization of appropriate pressure-reducing surfaces and support systems, and ensuring that patients receive adequate hydration, optimal nutrition, and meticulous skin care protocols. Additionally, providing education and coaching to patients and their families regarding pressure injury prevention is vital for comprehensive care. This educational approach should encompass culturally sensitive communication strategies and address individual beliefs and perspectives regarding healing processes to empower patients and families in their care participation.

Nickitas and colleagues (2022) noted that nurses can effectively advocate for systemic changes to ensure equitable access to care and necessary resources for all patients, regardless of their circumstances or background. This advocacy role is

particularly important in addressing healthcare disparities that may contribute to increased pressure ulcer risk among vulnerable populations (Sardo et al., 2024).

Staff Education Project Development

The DNP project development process began with an assessment of the current practice environment, followed by meetings with stakeholders and organizational leadership, to validate the gap in practice and ensure organizational support. Upon receiving topic approval from stakeholders, the project proposal was thoroughly discussed with the designated preceptor and supervising faculty member.

The project development involved formulating a PICOT question, conducting a review of current evidence from high-quality sources, and designing a staff education program based on the best available evidence. A pre-posttest evaluation design was implemented to assess the effectiveness of the educational intervention in enhancing staff knowledge related to pressure ulcer prevention strategies.

The educational program plan emphasized prevention strategies that are fundamental to effective pressure ulcer prevention. Key components included comprehensive training on utilization of the Braden Scale for systematic risk assessment, implementation of standardized daily skin assessment protocols, and adherence to proper perineal care and hygiene protocols. According to Han et al. (2024), structured nursing education focused on pressure ulcer prevention and management is essential for preventing pressure ulcers. Despite some limitations related to sample sizes in individual studies, the overall consistency and quality of the available evidence were sufficient to support project implementation and provide confidence in the intervention's potential

effectiveness. The final education plan consisted of a PowerPoint Presentation (Appendix A) that included a Role-Play case study.

Once the education program was approved by my preceptor and course faculty, I signed the ethics pledge. The education was implemented by first using a pretest to assess staff knowledge, sharing the education program, and then collecting a posttest to assess any change in knowledge. Twelve staff members participated in the pressure ulcer prevention education program, including nine nursing assistants and three nurses, representing the healthcare team responsible for direct patient care.

Results

The normalized learning gain was calculated using the standard formula to account for baseline knowledge levels and possible improvement (Pre and Post Test Guidelines, n.d.):

- Pre-test mean score: 70%
- Post-test mean score: 95%
- Maximum possible score: 100%
- Normalized Learning Gain = (95-70)/(100-70) × 100 = 84%

This 84% normalized learning gain indicates an effective knowledge change among all participating staff members. The improvement demonstrates that the educational intervention successfully addressed existing knowledge gaps and enhanced understanding of evidence-based pressure ulcer prevention strategies.

The project successfully demonstrated that an educational intervention could improve nursing staff knowledge related to pressure ulcer prevention. The 84% normalized learning gain provides good evidence that targeted, evidence-based education

can effectively bridge existing practice gaps and potentially enhance patient care quality and outcomes.

Impact on Organization

This project will impact the organization by providing increased staff knowledge to support improved patient outcomes. If staff practice change occurs as a result of this education, then it could also result in reduced healthcare costs and improved patient outcomes.

Impact Beyond the Local Organization

Pressure ulcers cost the U.S. healthcare system billions annually. Projects like this may contribute to ongoing national efforts to reduce HAPIs, improve patient outcomes, and reduce healthcare spending.

Limitations

The limitations of the project are that it was a small sample size in one organization, which limits the generalizability of the findings. Also, conducting a posttest just after the education does not assess knowledge retention and application in practice over time. Future programs should include a practice assessment to identify if participants changed their practice and an assessment of changes in pressure ulcer incidence rates.

Conclusions

The success of this DNP project demonstrates that targeted, evidence-based education can effectively improve nursing knowledge. Continued organizational commitment to evidence-based education and systematic practice improvement will be

essential for sustaining these positive results and achieving further reductions in pressure ulcer incidence. According to Coventry et al. (2024), future improvement efforts should prioritize developing and implementing strategies that ensure effective knowledge integration into routine clinical practice to reduce hospital-acquired pressure injury rates over time. Incorporating regular education, support, and competency validation could further enhance positive health outcomes and maintain the knowledge gained through this education program.

The potential for positive social change emerges from improving patient outcomes, reducing preventable harm, and decreasing overall healthcare costs through effective prevention strategies. This project supported the diverse needs of healthcare staff by respecting individual values, religious beliefs, and cultural perspectives of all participants while avoiding the imposition of personal belief systems on anyone involved in the project.

References

Coventry, L., Towell-Barnard, A., Winderbaum, J., Walsh, N., Jenkins, M., & Beeckman, D. (2024). Nurse knowledge, attitudes, and barriers to pressure injuries: A crosssectional study in an Australian metropolitan teaching hospital. Journal of Tissue

Viability, 33(4), 792–801. https://doi.org/10.1016/j.jtv.2024.10.003

Elli, C., Novella, A., Nobili, A., Ianes, A., & Pasina, L. (2022). Factors associated with a high-risk profile for developing pressure injuries in long-term residents of nursing homes. Medical Principles and Practice, 31(5), 433–438. https://doi.org/10.1159/000527063

Han, C., Yang, F., & Liu, L. (2024). Effectiveness of continuous care interventions in elderly patients with high-risk pressure ulcers and impact on patients' activities of daily living. Alternative therapies in health and medicine, 30(3), 118–123.

Kim, J., Lee, J., & Lee, E. (2020). Risk factors for newly acquired pressure ulcer and the impact of nurse staffing on pressure ulcer incidence. Journal of Nursing Management, 30(5). https://doi.org/10.1111/jonm.12928

Klaas, N., & Serebro, R. L. (2024). Intensive care nurses' knowledge of pressure injury prevention: A comprehensive training approach. Journal of Nursing Education and Practice, 14(2), 33–41. https://doi.org/10.5430/jnep.v14n2p33

Lavallée, J. F., Gray, T. A., Dumville, J., Cullum, N., & Cranny, G. (2018). Preventing pressure ulcers in nursing homes using a care bundle: A feasibility study. BMJ Open, 9(6), e025483. https://doi.org/10.1136/bmjopen-2018-025483

Nickitas, D. M., Emmons, K. R., & Ackerman-Barger, K. (2022). A policy pathway: Nursing's role in advancing diversity and health equity. Nursing Outlook, 70(6). https://doi.org/10.1016/j.outlook.2022.03.013

Pre and posttest guidelines. (n.d.). https://www.brighamandwomens.org/assets/BWH/medicalprofessionals/nursing/pdfs/pre-post-test.pdf

Roussou, E., Fasoi, G., Stavropoulou, A., Kelesi, M., Vasilopoulos, G., Gerogianni, G., & Alikari, V. (2023). Quality of life of patients with pressure ulcers: A systematic review. Medicine and Pharmacy Reports, 96(2), 123–130. https://doi.org/10.15386/mpr-2531

Sardo, P., Simões, L. M., & Almeida, C. (2024). Pressure ulcer prevention: Empowering nurses to drive change. Journal of Patient Safety and Risk Management, 29(2), 74–80. https://doi.org/10.1177/2516043524123456

Seo, Y., & Roh, Y. S. (2020). Effects of pressure ulcer prevention training among nurses in long-term care hospitals. Nurse Education Today, 84, 104225. https://doi.org/10.1016/j.nedt.2019.104225

Appendix: PowerPoint Presentation

PRESSURE ULCER PRESENTATION

ANN M STEWART

1

- Learning Objectives
- Identify the four stages of pressure ulcer prevention and early detection
- Describe strategies to establish a framework for improving quality and safe care
- List the goals of utilizing educational resources to reduce the risk of pressure
- Evaluate the strengths and limitations of pressure ulcer guidelines
- Ethical/ legal consideration Discussion with patients/families
- References

AGENDA

2

OBJECTIVES FOR PRESSURE ULCERS

1. Identify the four stages of pressure ulcers
2. Describe strategies to establish a framework for improving quality and safe care
3. List the goals of utilizing educational resources to reduce the risk of pressure ulcers, as evidenced by maintaining clean and dry skin.
4. Evaluate the strengths and limitations of pressure ulcer guidelines.

3

DEFINITION OF PRESSURE ULCERS

A localized area of tissue necrosis (cell death) that develops when soft tissue is compressed between a bony prominence (e.g., hip bone) and an external surface for a prolonged period

It can also result from shear or friction forces

Cause

Pressure ulcers are primarily caused by prolonged pressure on the skin, which impairs blood flow and oxygen supply to the tissues. Other contributing factors include

4

WHY IS IT IMPORTANT TO IDENTIFY THE STAGES

- It helps healthcare professionals determine the appropriate care plan and monitor the ulcer's progression. Staging enables accurate documentation, resource allocation, and ultimately, improved patient outcomes.

5

CHALLENGES OR BARRIERS TO PRESSURE ULCER HEALING

- immobility,
- malnutrition,
- infections,
- underlying medical conditions, inadequate pressure relief.

6

INFORMED CONSENT, DUTY OF CARE, AND POTENTIAL NEGLIGENCE IF PREVENTION FAILS

- Informed consent aligns with core ethical principles, such as beneficence (acting in the patient's best interest), non-maleficence (avoiding harm), and respect for persons.
- Additionally, there is a duty of care
- Negligence if prevention fails

- Ongoing legal battles with advanced pressure ulcers resulting in death due to negligence
- ethically responsible to maintain the law of beneficence, no harm
- Duty of care refers to the obligation to prevent and treat pressure ulcers,recognized as a form of patient harm. This involves navigating ethical dilemmas in policy and practice with a culturaly aware approach to decision-making.

7

STAFF EDUCATION ON PRESSURE ULCERS PREVENTION

8

STAGE I

STAGE 1: NON-BLANCHABLE ERYTHEMA OF INTACT SKIN.THE SKIN IS RED OR PURPLE AND DOES NOT TURN WHITE WHEN PRESSED.

9

STAGE 2: PARTIAL-THICKNESS SKIN LOSS INVOLVING EPIDERMIS AND/OR DERMIS.THERE IS AN OPEN WOUND, BLISTER, OR ABRASION.

10

STAGE 3 PRESSURE ULCER

- Stage 3: Full-thickness skin loss involving subcutaneous tissue but not muscle, tendon, or bone.The wound may be deep and have undermining or tunneling.

11

STAGE 4:

- Full-thickness tissue loss with exposed muscle, tendon, or bone.The wound may be very deep and have significant drainage.

12

WHY RETURN DEMONSTRATION OR ROLE PLAY IS VITAL FOR LEARNING

- When someone act out what they have learned the results shows competencies or incompetencies. Alos if what was taught have any impact on the individual negative or positive.
- Nursing staff played a vital role in the life of a patient and care given indicate our performance quality if there are any integrity or good works.

13

RETURN DEMONSTRATION ROLE PLAY

- Geriatric nursing assistant (GNA) assigned to the patient with a stage 4 pressure ulcer at the sacral
- Nurse assigned to the patient with the stage 4 pressure ulcers at the bedside and at this time we will have the nurse demonstrate wound care to the stage 4 pressure ulcer while nurse practitioner [illegible] the wound
- Today the wound Nurse practitioner is present and is measuring the wound
- The GNA will now ask assistance from the [illegible] and they have now started to change the patient soiled undergarments
- GNA reports skin appearance to the nurse who document in electronic health care records (EHR)
- Nurse wrote in patient records size of the wound after NP has document and update records of the size, color, odor of the wound in the HER
-

14

ROLE PLAY CONTINUED

- On changing the patient with the pressure ulcer the GNA report the skin appearance remain unchanged to the nurse who then wrote in EHR
- GNA report intake & output of fluid
- GNA used moisture barrier on the skin after incontinent care
- Two staff assist the patient in changing from one position to the other.
- The nurse update the Braden scale assessment record the wound status and notify family
- Interdisciplinary team discussed the wound and plan to take on how to manage the wound
- Risk management is updated in the point click care EHR that is used to track pressure ulcers

15

QUESTION & ANSWERS

16

THANK YOU

17