Pressure Injury Prevention: Quality Improvement Project Using the SSKIN Bundle

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Contents

Abstract

Nature and project scope: The SSKIN Bundle assessment tool was developed to help critical care staff achieve reliability in evaluating and documenting risk assessments, ensuring all patients receive the most appropriate care and documenting deviations from best practice. The prolonged immobility and long-term pressure on bony prominences increase the risk of a pressure injury. This project aims to bring to trial an evidence-based pressure ulcer prevention protocol (SSKIN) for all staff providing care for patients at a long-term care facility.

Synthesis and supportive literature analysis: The built-in preventative mechanism of the SSKIN care bundle is particularly essential among at-risk populations and is strongly needed primarily for the elderly with decreased mobility and could help reduce the rate of PIs in nursing homes. Implementing the five components of the SSKIN care bundle can help high-risk patients effectively prevent pressure injury by identifying and controlling risk factors (Santy & Limbert, 2020).

Local Problem: In 2012, 1.35 million people lived in nursing homes in the United States with many residents confined to their beds either because of their inability to move or due to cognitive impairments. The prolonged immobility and long-term pressure on bony prominences increase the risk of a pressure injury, PI, (Stone, 2020). This often results from the patient's movement, the nurse's movement of the patient or bed, which harms the skin or subcutaneous soft tissue (Stone, 2020). Over 11% of long-term care residents in the United States develop a PI during their stay, with prevalence rates as high as 20% (Stone, 2020). The cost of treating PIs in nursing

homes ranges from $20, 900 to $151,700 per patient, with the annual cost of treating such injuries in American nursing homes amounting to $3.3 billion (Stone, 2020).

Project implementation: Implement an evidence-based pressure ulcer prevention protocol for all staff providing care for patients over 8 weeks within a skilled nursing facility to decrease pressure injury rates and improve wound care. The implementation included an assessment of pre-implementation data, which was mandatory for all nursing staff educational training. Pre-implementation data for pressure injury prevention was pulled directly from the facility's electronic medical records (EMR) by the wound nurse and nursing director of nursing. Pre-implementation surveys were given to the nursing staff to assess their understanding of pressure injury prevention using the Pieper-Zulkowski Pressure Ulcer Knowledge survey. The staff will complete mandatory educational training in small groups, and PowerPoint presentations will be presented to the nursing staff.

Evaluation criteria: Pre-tool surveys were given to participants to determine barriers, occurrence rates, and any current policies of pressure ulcer prevention counseling in their practice. Post-tool surveys were given to evaluate the staff opinion on the interaction of the SSKIN bundle feasibility to improving

Outcomes: Pressure ulcer development can be prevented with proper staff training.

The SSKIN bundle was introduced to a long-term care facility. 10 nurses participated in the study. 20% of participants passed the pre-test. After implementation, 80% passed the post-test. Participants are fully equipped with the SSKIN bundle and have the tools to reduce PI.

Recommendations: The development of a future QI project utilizing the SSKIN bundle in long-term-care settings can help prevent or reduce pressure injuries among people aged 65 and older.

Introduction

According to the National Center for Health Statistics, approximately 48 million people in the United States were 65 or older in 2015, and by 2050, the population is likely to triple (Stone, 2020). Therefore, an individual's lifetime risk of being mentally incapacitated or handicapped in at least two daily activities rises to 68% for those aged 65 years and older. This vulnerable population may require long-term care, LTC, in a post-acute LTC facility such as a skilled nursing home because of their illnesses and disabilities (Stone, 2020). A pressure injury occurs when pressure and shear cause bony prominence to move across the tissue as the skin is held in place. In addition, the age and attitude of the patients, the training and experience of the nursing staff, effective management, and nutrition provided to patients all contribute to an increased risk of pressure injuries. Until a great deal of these cases can be eliminated or minimized, different pressure injury management techniques should be considered since repositioning and physical treatment have done little to prevent PIs in patients who have limited mobility. Some of the causes of PI include immobility due to poor health; incontinence, in which the skin undergoes prolonged exposure to feces and urine; poor sensory perception; inadequate hydration and nourishment; and certain medical diseases that affect blood flow (Gillespie et al., 2020). If at-risk residents are recognized early – and preventative measures are adopted – the formation of pressure injuries in LTC facilities may be avoided (Berlowitz et al., 2011). Without sufficient training of staff, little can be done in PI prevention (Gillespie et al., 2020). Other difficulties in pressure injury prevention include increased staff workload, inadequate staff to care for unwell patients, inadequate resources and equipment needed while caring for patients, and a lack of appropriate staff training (Gillespie et al., 2020).

Background

Pressure ulcer development in long-term care facilities can be prevented if at-risk patients are identified early and prevention measures from the onset. Prevention or early intervention measures are more cost-effective than treatment (Berlowitz et al., 2011). The DNP Project aimed to implement the SSKIN bundle protocol versus the current standard of care at a skilled nursing facility in the Twin Cities. A baseline data from three months prior to the implementation of the project was collected and compared to eight weeks of data post implementation of the SSKIN bundle. This DNP project incorporated the Iowa Evidence-Based Practice Model to Improve Quality Care which has been effectively used to promote nursing practice in numerous settings, focusing on evaluating, developing, implementing, and evaluating evidence-based practice protocols or guidelines (Laura et al., 2018). The model maintains stability, guides nursing to improve patient outcomes, boosts nursing practice, and monitors health costs (Lura et al., 2018). The Iowa State Model helps with appropriate topic selection, team formation, retrieval of evidence, classification of evidence, development of EBP standards, implementation of EBP, and the evaluation process (Laura et al., 2018).

Problem Identification

The leadership at the long-term-care, LTC, facility in St. Paul, MN, is aware that the problem with pressure injuries in its facility was linked to a lack of knowledge and skills, on the part of the staff, to prevent the onset or exacerbation of pressure ulcers. Per the Director of Nursing, “a significant reason for pressure injury development at the facility is inadequate knowledge, on the part of the nursing staff, of the effects of pressure injuries on overall resident outcomes and the lack of a standardized, advanced pressure injury prevention tool”. Before the

project, the skin care policy the facility had in place instructs nurses when to assess the resident's skin and to document findings, and how to monitor pressure injuries. There was no established tool for monitoring residents at risk of pressure injury developments or specific interventions to prevent the development of these injuries. In addition to patient risk and pain, pressure ulcers among patient residents create both a financial burden and the negativity on its brand in the eyes of the public. The goal was to develop an educational curriculum and assessment tool using the SSKIN care bundle to help train staff and test their readiness, after eight weeks, for the purpose of contributing to the facility's long-term goal of reducing pressure ulcer injuries. The long-term goal, not part of the current project, was to help reduce the current pressure injury rate by striving to prevent future injuries from occurring, and negatively impacting the quality of patients' lives. Per the facility, the prevalence of pressure ulcers had declined in the facility over the past years, but much remained undone to reduce the preventable complications – something the SSKIN care bundle sought to remedy.

PICO Question

P) In a long-term care facility whose staff provides care to residents with limited mobility (I) will the training of staff in the usage of a pressure ulcer prevention tool (SSKIN Bundle) (C) as compared to making no changes in the existing process, (O) better prepare staff to help patients who have or are at risk of obtaining pressure ulcers, (T) over an implementation and study period of eight weeks?

Literature Review

Literature research was done to provide further context for the project and identify previous works in pressure injury prevention. Published studies were found underlining the importance of implementing a pressure ulcer prevention bundle for the prevention of pressure ulcers in adult

patients. The use of CINAHL and google scholar were very instrumental in the search and library search engines were proved to be accommodating. Keywords like “pressure injuries", “pressure ulcers" and “SSKIN bundle” were used in the database search engines. The articles reviewed for this project present essential insights that can be used to answer the PICO question: in LTC facilities, will the use of pressure ulcer prevention tool (SSKIN) to educate staff who provide care to limited-mobility residents as compared to making no changes in the existing tool, better educate the staff in their fight to reduce pressure injuries, over an implementation and study period of eight weeks? Additional search strategies were used to supplement the computerized databases to identify articles that may have been missed. Literary articles included English-only publications; involved pressure ulcer preventable bundle verbiage; and nursing training on pressure ulcer bundles. A literature review matrix used to extract themes and analyze studies is shown in Appendix A.

Literature Synthesis

Santy & Limbert (2020) states that due to their frequent inability to change positions freely, patients receiving long-term care are particularly vulnerable to developing pressure ulcers. According to Campbell (2016), improving working policies and processes to define key prevention strategies and providing staff with a transparent, standardized approach to risk and skin assessment is highly beneficial. The process included the development, trial, and local implementation of the pathway using collaborative teamwork and the SSKIN care bundle tool (Campbell, (2016). The experience of identifying issues, overcoming challenges, defining best practices, and cascading SSKIN awareness training is crucial. It is well documented that predicting pressure ulcer risk using an assessment tool facilitates early detection and is considered vital when identifying preventive

actions to reduce avoidable pressure ulcers (Campbell, 2016). An incomplete or delayed risk assessment can consequently influence healthcare choices, provision, and outcomes.

Healthcare organization leadership struggles with combating the challenge of pressure ulcer incidents while nursing staff are saddled with the responsibility of maintaining their patients' skin integrity, yet they do not feel adequately prepared for this. Pressure ulcer preventative bundle, like the SSKIN care bundle, is one of the ways to prepare nurses with using standardized pressure ulcer prevention protocols and decreases the rate of pressure ulcers (Amr, Yousef, Amirah, & Alkurdi, 2017). The built-in preventative mechanism of the SSKIN care bundle is particularly essential among at-risk populations and is strongly needed primarily for the elderly with decreased mobility and could help reduce the rate of PIs in nursing homes. Implementing the five components of the SSKIN care bundle can help high-risk patients effectively prevent pressure injury by identifying and controlling risk factors (Santy & Limbert, 2020). The possibilities for improved collaboration strategies for staff to prevent PIs were explored. According to Wood et al. (2018), effective management planning of systems, people, and collaborative strategies effectively prevents PIs. A similar study by Michelle (2018) noted that combining management approaches yielded better PI prevention results than simply relying on repositioning strategies. However, nurses' knowledge regarding pressure ulcer management and prevention is still critical in preventing bedsores. Campoi et al. (2019), using a pedagogical approach, found that nurses trained in effective pressure ulcer prevention were better able to manage and reduce such ulcers among elderly patients.

Organizational Project Information

The suggested project was initiated at a long-term care facility in St. Paul, MN, which has approximately 96 residents. The targeted population was the nursing staff who provided care to prevent bedsores in limited-mobility residents, aged 65 years and older. Over the past five years, they have reported an increase in the number of PIs and related deaths.

Stakeholders

The stakeholders for the development of the project were the patients involved, the care team which included a wound care nurse, a nurse practitioner, two registered nurses, two licensed practical nurses, three certified nursing assistants, a dietitian, a nurse manager as well as the facility's leadership. The DNP candidate was responsible for developing and delivering the PI educational material. The wound nurse provided feedback throughout the project's development and created educational material that best fitted the organization's needs.

Gap Analysis

According to Singh et al., the cost of pressure injuries on the healthcare system is estimated at $11 billion annually, and the burden of implementing prevention remains unclear (Modern Healthcare, 2022). A 2017 study from the Agency of Healthcare Research and Quality showed that the PI rate is increasing, despite all the efforts made by health facilities (Modern Healthcare, 2022). The preliminary national rate of PI was 23 per 1,000 in 2017, which represents a 6% increase from 21.7 in 2014 (Modern Healthcare, 2022). The facility, like any healthcare organization, understood the monetary and human value of PI prevention and was committed to ensuring the delivery of quality care. The facility has a 10% pressure injury rate annually and training staff to help reduce that number in the future was very important. First, there are tough financial consequences for healthcare organizations who report this facility-acquired condition. Since 2008, the Center for Medicare and Medicaid Services (CMS) stopped paying for care related

to treating PIs that develop during a stay, along with other infections, as the Center deemed them reasonably preventable (Modern Healthcare, 2022). Research showed that treating a single PI can cost anywhere from $500 to more than $70,000 (Modern Healthcare, 2022). Second, the facility has a higher chance of losing clientele or a risk of federal or state actions if it has a relatively high rate of facility-acquired infections (Modern Healthcare, 2022).

Needs Assessment

A needs assessment conducted at the facility – with the help of the Director of Nursing and a senior wound care staff – showed that nursing staff lack adequate knowledge of the severity of pressure injuries and their implications for nursing care as well as the implication on the survivability of the organization. They surmise that the lack of modern technology and application of advanced, evidence-based procedures and protocols worsens the creation of pressure injuries. According to Coyer and Tayyib, lack of knowledge about the risk factors is a major contributor to the development of pressure injuries. Nursing staff need adequate education to promote competence in handling and managing the risk of pressure injuries (Coyer & Tayyib, 2017). Incorrect positioning of residents by the nursing staff can also increase the risk of pressure injury development by putting too much pressure on particular areas of the body (Stone, 2020). Several studies have recognized the importance of implementing the SSKIN bundle to prevent pressure injury. Participation of staff in this evidence-based pressure injury prevention initiative may improve nurses' knowledge of pressure injury prevention. These studies have demonstrated that implementing a pressure injury prevention bundle significantly reduces pressure injury incidents. Several studies also confirmed that nursing staff reported that education on pressure injury prevention increased their awareness and helped them provide better nursing care. (Coyer & Tayyib, 2017).

SWOT Analysis

This organization had many strengths that proved beneficial for the project implementation. Leadership was highly supportive and willing to champion the project. Support ranged from the general manager, a certified wound care nurse, project development doctors and nurse practitioners, and the Director of Nursing. One of the weaknesses was that the staff is spread thin due to shortages from the effects of COVID-19. Nurse turnover, nursing staff knowledge deficit and a lack of a standardized, evidence-based protocol were considered other weaknesses. Opportunities included the potential to better educate staff and reduce the number of PI injuries among residents and the strong interest to incorporate the SSKIN care bundle on PI prevention. The threat envisioned was the challenge of getting on-time responses from leadership, the continuous increase in costs for pressure ulcers injuries and the lack of accountability of staff nurses for patient's skin assessment.

Theoretical Framework

Grand Theory

The current research's guiding/theoretical framework comprised of a grand theory. The Betty Neuman System Theory (Ahmadi & Sadeghi 2017) is a good fit for chronic disease sufferers, and it was considered an appropriate model to be used for this population because it encourages nurses to provide holistic patient care (Ahmadi & Sadeghi, 2017). According to this theory, the patient is an open system composed of five variables — physical, psychological, sociocultural, developmental, and spiritual — constantly exposed to intra-, inter-, and extra-stressors (Ahmadi & Sadeghi, 2017). The patient's line of defense, including the flexible and regular line of defense and the line of resistance, can be affected by stressors (Ahmadi & Sadeghi 2017). An earlier study

of Neuman System Theory's application to the care of terminally ill patients with PIs indicated that it might be a practical guide for consideration, because applying this theory to patients at risk for or suffering from pressure injuries has changed due to these developments in prevention, treatment, and rehabilitation of the control of PIs (prevention, therapy, and after a stroke, patients' rehabilitation will be discussed) (Ahmadi & Sadeghi, 2017). The Neuman system model can assess the stressors that affect the patient's system (Ahmadi & Sadeghi, 2017). By using this model, nurses can better employ all three levels of primary, secondary, and tertiary preventive care as an intervention technique to reduce patient stress (Ahmadi & Sadeghi, 2017). Furthermore, nurses can contribute to healthcare services by incorporating nursing theory into practice (Ahmadi & Sadeghi, 2017).

Evidence-Based Practice Translation Model

The Iowa State Model is a translation model that effectively guided this quality improvement project and facilitated choosing an effective pressure ulcer prevention champion team, EBP educational interventions, such as the SSKIN bundle, and directed the implementation and evaluation process (Laura et al., 2018). The SSKIN bundle helped the facility's nursing staff to implement pressure ulcer prevention strategies by focusing on pressure-relieving surfaces, incontinence care, turning and repositioning, and nutritional management (Laura et al., 2018). Practical EBP pressure wound risk assessment and prevention is fundamental in long-term care settings. It improves the quality of care and healthcare utilization efficiency (Laura et al., 2018). The DNP project integrated the Iowa Model of Evidence-Based Practice to Improve Quality Care (Titler et al., 2001). For this project, this model helped to maintain consistency, guide nursing to improve patient outcomes, boost nursing practice, and monitor health costs (Taylor-Piliae, 1999). By using the SSKIN model, nurses can better employ all three levels of primary, secondary,

and tertiary preventive care as an intervention technique to reduce patient stress (Ahmadi & Sadeghi, 2017). Furthermore, nurses can contribute to healthcare services by incorporating nursing theory into practice (Ahmadi & Sadeghi, 2017). The DNP candidate will assess the care team's knowledge of PIs with a test before further education and give an online presentation to educate the care team with information on the etiology of PIs, classification, risk factors, skin assessments, preventive skin care, pain, and treatment of PIs. Additionally, the DNP candidate will also give the care team the PI Knowledge Test, containing ten questions after training. This test measures caregiver knowledge of PIs, prevention, treatment, and stages.

Project Goals and Objectives

This project aimed to bring to trial an evidence-based pressure ulcer prevention protocol (SSKIN) for all staff providing care for patients at a LTC facility in St. Paul, MN. The initial goal, over eight weeks, was to make sure every staff in the trial had knowledge of and was able to implement the bundle, with a long-term goal to decrease pressure injury rates. The project improved staff acumen on pressure injury prevention by providing industry best practices, facilitating a change of training and practice improvement. In an 8-week period, the facility staff needed to achieve 100% compliance with completing the training, including the documentation process, as instructed by the SSKIN protocol. The project was completed in November, 2022

Recommendation: To ensure that 100% of wound-care staff are educated and trained on the prevention of PI by the end of 2022, by implementing an educational module based on the SSKIN bundle.

Objective: The primary objective was to educate staff on the SSKIN bundle usage within eight weeks. The secondary, long-term aim is to decrease the number of pressure ulcers in the unit by 80%, or from 10% to 2%.

GANTT Chart

A GANTT chart was developed to help with the planning and scheduling of the project (see Appendix B). This chart helped determine the length of the project, the resources needed, and appropriate deadlines. The project ran for eight weeks. The first week included pre-intervention data collection as well as the releasing of training materials to wound-care staff. Approximately six weeks were allocated for implementation. Post-intervention data was collected in the last week. The staff were tested to gauge their readiness to carry out the SSKIN care bundle without supervision. Initiation of the project included developing the GAP analysis, literature review/matrix, and needs assessment, as well as contacting all stakeholders within the facility. The project's development required the help of a care team composed of a nurse practitioner and a wound nurse with excellent wound care experience. The DNP candidate created the preliminary scope statement during the project's planning phase.

Methodology and Analysis

Project Design: This DNP project was a pre-implementation, implementation, and post-implementation of the SSKIN care protocol. This protocol was chosen because many studies have shown the value of pressure injury prevention program training in long-term care facilities to increase staff knowledge of pressure injury prevention strategies and decrease the rate of pressure injury (Laura et al., 2018). The nursing care facility for this project did not have a standardized pressure injury prevention program, and the design of the project aimed to translate the evidence of the SSKIN bundle into the current nursing practice. The SSKIN bundle assessment tool was developed to help critical care staff achieve reliability in evaluating and documenting risk assessments; ensuring all patients receive the most appropriate care; and documenting deviations from best practice, for example when patients withhold consent to interventions. The tool allowed

staff to monitor what they are doing well and where they need to improve. Other visual cues, communication tools and decision aids were developed throughout the organization to ensure the SKIN Bundle is delivered effectively.

Consent: Upon admission to the facility, patients were required to sign an admission package which includes a consent to treat agreement, permitting be treated by the facility. The methods used within this project were covered within this initial consent form. No additional informed consent form was needed for this project.

Setting: The long-term-care facility is a 96-bed long-term care facility located in Ramsey County, Minnesota. The facility has a 30-bed memory care unit and a 66-bed long-term resident program, a dietitian, occupational and physical therapy, and speech therapy. This nursing home was chosen because its management team has a proactive approach to improving patient experiences. Also, the facility encourages evidence-based practice and provides the best resident experience. Furthermore, the facility ensures that the nursing staff have all the resources needed to care for residents, including ways to prevent pressure injuries.

Project Monitoring: During the control phase, there were series of project management sessions and status evaluation meetings. The DNP candidate led the discussions. The project updates were provided continuously to ensure that stakeholders were well informed regarding the project's progress and any changes that needed to be implemented based on the feedback of the nursing staff. Daily notes were compiled and analyzed using Excel and other available reporting tools.

Communication Matrix: Communications occurred through Zoom meetings, over the phones and emails. Regular, scheduled meetings – twice a week – were encouraged to keep all on the same page. In those scheduled meetings, reports including documents, graphs, tables, and templates

were discussed and placed on a common platform, Google Docs and Sheets, to ensure that all members of the team and the project chair had equal access to the components of the project.

Pre-Implementation: The pre-survey was developed and prepared for use. The DNP candidate met with the wound nurses to discuss staff education. The facility approved the meeting with the stakeholders before it occurred. An engagement with the stakeholders took place after approval was given. All suggestions were considered, and modifications made as necessary. The resident's and staff information was kept confidential throughout the project implementation process. Pre-implementation surveys were distributed only to staff who influenced the project's outcome. Pre-survey and responses were held in a locked cabinet at the nursing station when not in use. Staff were educated on the importance of confidentiality when answering questions during the pre-survey. The staff was not required to include their names on the survey. Numbers were allocated to them which was used to ensure attendance at each session. The attendance sheets were kept secured in a locked cabinet by the DNP candidate. The project was reviewed by the College of St. Scholastica's Internal Review Board for Human Subjects' use. The Health Insurance Protection and Portability Act (HIPPA) was followed, and the project followed the ANA code of ethics and adhered to 45 CFR 46 on using human subjects in research. During the pre-implementation phase, the SSKIN bundle protocol was included in the weekly huddle sheets and used to educate the participants.

Implementation: The factors of this implementation included an assessment of pre-implementation data which was mandatory for all nursing staff educational training. Pre-implementation data for pressure injury prevention was pulled directly from the facility's electronic medical records (EMR) by the wound nurse and nursing director of nursing. Pre-implementation

surveys were given to the nursing staff to assess their understanding of pressure injury prevention using the Pieper-Zulkowski Pressure Ulcer Knowledge survey. The staff completed a mandatory educational training which occurred in small groups, and PowerPoint presentations were presented to the nursing staff by the DNP candidate. The educational implementation was developed based on the Agency for Healthcare Research and Quality (AHRQ) pressure injury prevention training guidelines with attention to the elements of the SSKIN bundle.

AHRQ has made the policies available for everyone's usage. The authors have indicated the training program can be downloaded for personal use and educational training purposes but cannot be reproduced or incorporated into other computer access systems. The Department of Health and Human Services has validated the AHRQ pressure ulcer prevention training guideline as a good training program to teach healthcare professionals on how to create structured pressure injury prevention programs based on the quality improvement criteria. Long-term care facilities can and should modify them to meet the needs of their residents, which is especially important given the environment's varying resource availability. The facility will be advised to use the policies as a guide in providing good nursing care to all patients.

Post-Implementation: After the training was completed, the staff completed a post-implementation test to evaluate the nursing staff understanding of the SSKIN bundle and its importance in pressure injury prevention.

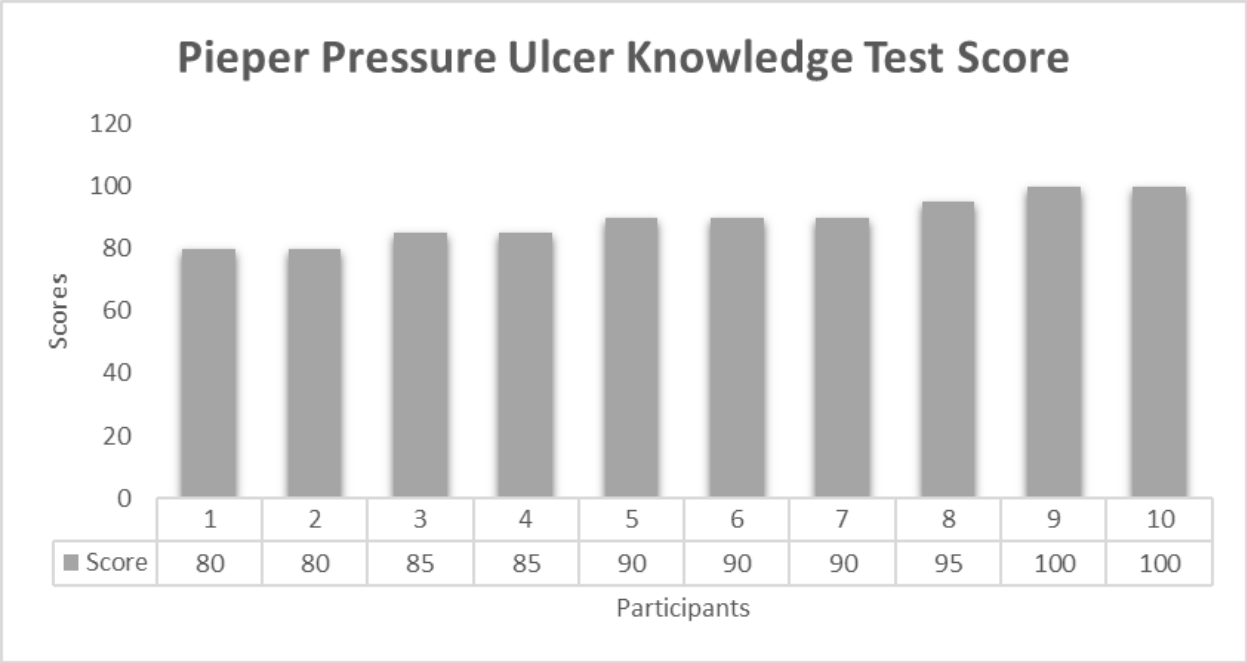
Data Analysis: Data was collected using the Pieper-Zulkowski Pressure Ulcer Knowledge pre- and post-survey. The pre and post survey template contains ten questions each. The pre-survey questions informed the DNP candidate on how participants provided knowledge on pressure injury prevention and if a bundle is being used with residents with high-risk pressure injuries in

this intervention. Then, the pressure injury risk assessment tool was introduced and operated throughout the duration of the project. During that time, the DNP candidate monitored all high-risk residents and asked if the SSKIN bundle tools were used to make a direct judgment. The post-survey introduced questions inquiring if the pressure injury prevention SSKIN bundle tools were used on a patient, if the nurse had thorough understanding of the bundle - in terms of usage – and if it helped reduce the number of pressure injuries in high-risk residents.

Logic Model: The Logic Model is illustrated in Appendix F.

Budget/Resources: The facility leadership provided most of the resources and budget needed to complete the project. Because staff participation was needed, nursing staff were paid their regular wages for the on-site training and implementation sessions. The training material was made available through the AHRQ website, and the electronic gadgets used (cell phones, laptop etc.) were available at the facility. Sealed boxes for secure survey submission were also provided by the facility at no cost.

IRB/Ethical Considerations: The project was reviewed by the College Internal Review Board for Human Subjects' use. This project did not require staff to include their names on the questionnaires. The Health Insurance Protection and Portability Act (HIPPA) was followed. Furthermore, the project strictly followed the ANA code of ethics and adhered to 45 CFR 46 on the use of human subjects in research.

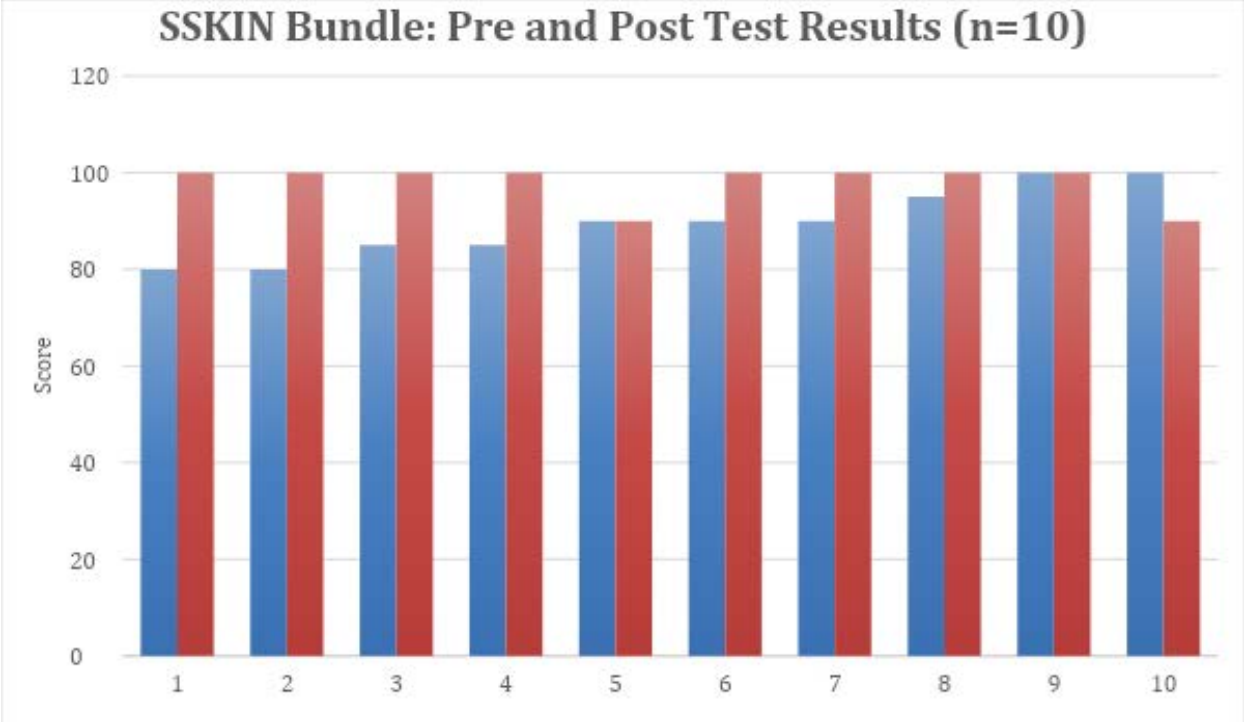


Pre-survey

A Pieper Pressure Ulcer Knowledge Test was administered to the staff (n=10) at a facility in St. Paul, MN, to gauge their understanding of pressure ulcer formation, signs to look out for, procedures that need to be carried out and eventual treatments in the case of an ulcer development. Only 20% of the staff hit a score of 100% - the desired outcome of the test. Forty percent were in the 90s and the other forty in the 80s. One of the goals of the project is to have a 100% score for all participants at the end of the eight weeks.

Post-survey

At the end of the 8-week implementation of the SSKIN Bundle, a test was administered to measure the level of knowledge each participant had acquired. Below is the result:



80% of the staff scored 100% (the project goal) and 20% got 90%. Even though the expected project result of all participants scoring 100% wasn't achieved, 8 out of 10 was still a reasonable achievement.

Dissemination

Discussions with the nursing staff at the long-term care facility in St. Paul were conducted to complete the dissemination of the project's results and data analysis findings. Through the DNP poster presentation symposium and open discussions via peer evaluations, the findings and outcomes of the QI project were also shared with students and faculty administrators within the graduate nursing program of the College of St. Scholastica. Additionally, this QI project will be uploaded to the Doctoral Research Repository for distribution to anyone who might be interested in this project to help reduce PI in long-term care using the SSKIN bundle tool.

Conclusion

Preventing pressure injuries in elderly patients is an ongoing concern in the nursing care setting, and it is believed that integrating evidence-based interventions to avoid pressure injuries in the elderly over 65 with restricted mobility is advantageous. Most pressure injuries can be avoided and decreased in nursing home residents by adhering to best practice guidelines. However, containing PIs can be a challenging intervention for critically ill patients requiring pressure injury prevention therapy. Care for all pressure injuries, including those induced by medical devices, must be planned and implemented by registered nurses using evidence-based techniques. If a patient has sustained pressure injuries, their ability to return to everyday life may be diminished, their recovery may be complicated, and their hospital stay may be prolonged. The prognosis for residents with pressure injuries is dire, and in the worst cases, they may even die prematurely. Therefore, to effectively prevent pressure injuries, nurses must be trained in PI prevention. This DNP project incorporated the Iowa Evidence-Based Practice Model to Improve Quality Care which has been effectively used to promote nursing practice in numerous settings (Laura et al., 2018). The model intends to maintain stability, guide nursing to improve patient outcomes, boost nursing practice, and monitor health costs (Lura et al., 2018). The facility understood the financial implication, the negative image on the company and the threat to staying in business if a strong sense of urgency on pressure injuries reduction was not at the forefront. The goal of the project was to develop an educational curriculum and assessment tool using the SSKIN care bundle that staff will be better prepared to help management reduce the injury rate in the future while saving management the added but unnecessary costs associated with treating PIs. At the end of the eight weeks – the duration of the project – 80% of the nursing

staff in the study could articulate the SSKIN care bundle through implementation, a 300% with respect to the pre-test were only 2 out of 10 participants scored 100%

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Yap, T. L., Kennerly, S. M., & Ly, K. (2019). Pressure injury prevention: outcomes and challenges to use of resident monitoring technology in a nursing home. *Journal of Wound, Ostomy, and Continence Nursing*, *46*(3), 207. DOI: 10.1097/WON.0000000000000523

Appendices

Appendix A

Literature Matrix Table

Citation (Article & year)	Purpose	Research Design Ex	Methodology	Finding	Conclusion	Critical Appraisal Tool & Rating (Levels I-VII)
Alderden, J., Rondinelli, J., Pepper, G., Cummins, M., & Whitney, J. (2017). Risk factors for pressure injuries among critical care patients: a systematic review. *International Journal of Nursing Studies*, 71, 97–114.	To identify risk factors independently predictive of pressure injury.	A systematic review.	A research librarian coordinated the search strategy. Google scholar was used.	The age, mobility or activity, perfusion, and vasopressor infusion emerged as significant risk factors for pressure injury development, whereas results for risk categories are theoretically important, including nutrition	Maximal pressure injury prevention efforts are significant among older critical-care patients who have altered mobility, experience poor perfusion, or are receiving a vasopressor infusion.	Level V

				and skin or pressure injury status.		
Alshahrani, B., Sim, J., & Middleton, R. (2021). Nursing interventions for pressure injury prevention among critically ill patients: A systematic review. Journal of Clinical Nursing, *30*(15–16), 2151–2168.	Nursing interventions for pressure injury prevention among critically ill patients.	A systematic review.	Four electronic databases were searched for relevant studies. PRISMA, Medline, Embase and CINHAL.	Even though all of the included studies demonstrated a reduction in pressure injuries due to the therapies, the evidence strength was assessed from moderate to very low.	Nurses must plan and administer evidence-based care to prevent pressure injuries, particularly those caused by medical devices. Preventing pressure injuries requires nurse education and training programs on PI prevention.	Level I
Anthony, D., Alosoumi, D., & Safari, R. (2019). Prevalence of pressure ulcers in long-term care: a global review. *Journal of Wound Care*, *28*(11), 702–709.	To identify and update the prevalence and incidence of pressure ulcers (PUs) in several countries, in people with long-term conditions resident in	Global review.	We followed the PRISMA guideline for systematic reviews.	Inclusion criteria was met by 17 studies included in the study. Some studies gave a complete breakdown by category, some only	In long-term care, PUs are a common issue. However, there are significant variances between countries, and many have no publicly available statistics.	Level VII

	care homes or nursing homes.			gave overall figures, and others excluded category I PUs. However, within those constraints, specific patterns are evident.		
Barker, A. L., Kamar, J., Tyndall, T. J., White, L., Hutchinson, A., Klopfer, N., & Weller, C. (2013). 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	Implementation of pressure ulcer prevention best practice recommendations in acute care.	An observational study	This prospective observational cohort study was undertaken at TNH, a 370 bed, acute, metropolitan, public teaching hospital located in Melbourne, Australia. Google scholar was used for this research.	Pressure ulcer prevalence reduced from 12·6% in 2003, two years before program implementation, to 2·6% in 2011, six years after the program implementation.	TNH looks to have a well-integrated evidence-based pressure ulcer prevention program. Using a validated pressure ulcer risk assessment and intervention checklist, the researcher discovered a significant reduction in pressure ulcer prevalence and high levels of nurse	Level VII

					compliance.	
Bergstrom, N., Horn, S. D., Rapp, M., Stern, A., Barrett, R., Watkiss, M., & Krahn, M. (2014). Preventing Pressure Ulcers: A Multisite Randomized Controlled Trial in Nursing Homes. *Ontario Health Technology Assessment Series, 14*(11), 1–32.	Preventing pressure ulcers.	Randomized control.	Residents from 20 United States and 7 Canadian LTC facilities. Participants were randomly allocated to one of three turning schedules.	Pressure ulcers among high-risk versus moderate-risk participants were not significantly different, nor was there a difference between moderate-risk or high-risk allocation groups.	High-risk residents at intervals of two to four hours when cared for on high-density foam replacement mattresses. Turning at three-hour and four-hour intervals is no worse than the current practice of turning every two hours.	Level III
Buğdaycı, D. S., & Parker, N. (2021). Is repositioning effective for pressure injury prevention in adults? *A Cochrane Review Summary With Commentary*. DOI: 10.5606/tftrd.2021.10235	The effectiveness of repositioning in the prevention of pressure ulcers among adults.	Randomized control.	Systematic review.	Previous studies had stated repositioning was insufficient in preventing pressure ulcers. Analysis of the studies demonstrates, overall, evidence was not	More studies are needed to state whether repositioning affects pressure ulcers conclusively. Repositioning alone does not suggestively reduce pressure injuries or	Level III

				sufficient to suggest different repositioning intervals or angles significantly reduced pressure injuries.	increase the quality of life.	
Campoi, A. L. M., Engel, R. H., Stacciarini, T. S. G., Cordeiro, A. L. P. D. C., Melo, A. F., & Rezende, M. P. (2019). Permanent education for good practices in the prevention of pressure injury: almost-experiment. *Revista brasileira de enfermagem*, 72, 1646–1652. http://dx.doi.org/10.1590/0034-7167-2018-0778	Do educational interventions aimed at improving nurses' knowledge help reduce pressure ulcers?	Quasi-experimental.	Quasi-experimental.	Training and education of nurses help them to better manage and reduce pressure ulcers among their patients.	The educational intervention developed was effective since it contributed to the improvement of nurses' knowledge.	Level II
Chou, R., Dana, T., Bougatsos, C., Blazina, I., Starmer, A. J., Reitel, K., & Buckley, D. I. (2013). Pressure ulcer risk assessment and prevention: a systematic comparative effectiveness review. *Annals of Internal Medicine, 159*(1), 28–38. https://doi-org.akin.css.edu/10.7326/0003-4819-159-1-201307020-00006	Review the clinical value of pressure ulcer risk assessment instruments and the comparative effectiveness of preventative therapies in people at higher risk of developing pressure ulcers.	A systematic comparative effectiveness review.	Randomized trials and observational studies.	The evidence on the effectiveness of nutritional supplementation, repositioning, and skincare therapies against standard care was sparse and methodologically flawed, making	More advanced static support surfaces are more effective than standard mattresses for preventing ulcers in higher-risk populations. The effectiveness of formal risk assessment	Level V

				firm judgments impossible.	instruments and associated intervention protocols compared with less standardized assessment methods and the effectiveness of other preventive interventions compared with usual care have not been established.	
Gillespie, B. M., Walker, R. M., Latimer, S. L., Thalib, L., Whitty, J. A., McInnes, E., & Chaboyer, W. P. (2020). Repositioning for pressure injury prevention in adults. *Cochrane Database of Systematic Reviews*, (6).	Repositioning for pressure injury prevention in adults.	Systematic Reviews.	The Cochrane Wounds Specialized Register, the Cochrane Central Register of Controlled Trials (CENTRAL), Ovid MEDLINE, Ovid Embase, and EBSCO CINAHL Plus on 12	The proportion of participants who had PI at any stage was reported in six trials. Five trials declared funding sources, putting all of the research at a high risk of bias. Within-trial cost evaluations were provided in two of	There are few rigorous evaluations of repositioning frequency and placement for PI prevention, and their effectiveness is unknown. There is a high level of uncertainty in the evidence base because all comparison	Level I

			February 2019.	the eight experiments. The follow-up periods were brief (24 hours to 21 days).	s were underpowered.	
Lee, Y. N., Kwon, D. Y., & Chang, S. O. (2022). Bridging the Knowledge Gap for Pressure Injury Management in Nursing Homes. *International Journal of Environmental Research and Public Health*, *19*(3), 1400. https://doi.org/10.3390/ijerph19031400	Bridging the knowledge gap for pressure Injury management in nursing homes.	Qualitative study.	Google scholar was used for this research. The knowledge to action model was divided into two phases, each with its action cycle. The first part consisted of developing a framework based on nursing experience. The framework's effects were assessed in the second phase,	The participants' attitude, knowledge, stage discrimination ability, and clinical management judgment capacity all improved significantly due to the training.	This study's educational framework and program are predicted to improve nurses' pressure injury management competency in nursing homes and contribute to effective pressure injury management and resident quality of life.	Level VI

			which included implementing and monitoring the program.			
Lindhardt, C. L., Beck, S. H., & Ryg, J. (2020). Nursing care for older patients with pressure ulcers: A qualitative study. *Nursing Open, 7*(4), 1020–1025. https://doi.org/10.1002/nop2.474	To explore the experience and perception of pressure ulcers in a group of nurses caring for older patients.	A qualitative study.	A qualitative descriptive method was employed, including a thematic analysis based on six semi-structured individual interviews. Google scholar was used for this research.	According to all nurses interviewed, pressure ulcers are an important problem in nursing care, especially while caring for senior patients. Elderly nursing patients stated that skincare and observations are fundamental nursing activities.	Increased awareness of using the same terminology when caring for and observing patients with pressure ulcers may enhance the level of prevention and detection of patients with pressure ulcers on the ward. An opportunity could be bedside teaching/observing for novice and more experienced nurses on the ward. Finally, creating a culture in the	Level VI

					community where basic nursing skills and observations are articulated in the daily clinic might further increase awareness.	
Li, Z., Lin, F., Thalib, L., & Chaboyer, W. (2020). Global prevalence and incidence of pressure injuries in hospitalized adult patients: A systematic review and meta-analysis. *International Journal of Nursing Studies*, 105, 103546.	Global prevalence and incidence of pressure injuries in hospitalized adult patients.	Observational Study. Google scholar was used for this research.	Systematic review.	With a total sample size of 2,579,049 patients, 42 studies were included in the systematic review, and 39 were eligible for meta-analysis. In 16 investigations, stages were mentioned (132,530 patients with 12,041 pressure injuries). Stage I (43.5%) and Stage II (28.0%) were the	This study suggests that the burden of pressure injuries remains substantial, with over one in ten adult patients admitted to hospitals affected. Superficial pressure injuries, such as Stage I and II, are the most common stages and are preventable.	Level V

				most common stages. Across various geographic regions, there was a lot of variation. The sacrum, heels, and hips were the most impacted body parts.		
Lyder CH, Ayello EA. Pressure Ulcers: A Patient Safety Issue. In: Hughes RG, editor. *Patient Safety and Quality: An Evidence-Based Handbook for Nurses. Rockville (MD): Agency for Healthcare Research and Quality (US);* 2008 Apr. Chapter 12. Available from: https://www.ncbi.nlm.nih.gov/books/NBK2650/	Pressure ulcers are a patient safety issue.	Randomized controlled trials. Google scholar was used for this research.	None	Nursing care has a significant effect on pressure ulcer development and prevention. Prevention of pressure ulcers often involves the use of low technology, but attentive care is required to address the most consistently reported risk	According to the literature, while not all pressure ulcers can be prevented, the majority of pressure ulcers can be prevented with comprehensive pressure ulcer programs.	Level I

				factors for developing pressure ulcers.		
Preventing pressure ulcers in nursing homes using care (n.d.). Retrieved April 29, 2022, from https://onlinelibrary.wiley.com/doi/epdf/10.1111/hsc.12742	Preventing pressure ulcers in nursing homes using a care bundle.	A qualitative study. Google scholar was used for this research.	Researchers conducted a mixed-methods feasibility study involving a quantitative uncontrolled before-and-after study of the bundle and the associated activities to support implementation and qualitative semi-structured face-to-face interviews with staff using the care bundle with questions informed	This study demonstrates how a pressure ulcer prevention bundle is acceptable to nursing home staff and has the potential to improve the provision of care. The participants reported an increase in their motivation to provide more comprehensive care due to the inclusion of their signatures on the documentation sheet.	Nursing and the National Institute for Health and Care Excellence recommendations for an integrated approach to pressure ulcer prevention with a clear strategy and continuous quality improvement informed by regular audits and feedback.	Level VI

			by the Conceptual Framework for Implementation Fidelity.			
McInnes, E., Jammali, A., Bell-Syer SEM, Dumville, JC., Middleton, V., Cullum, N. (2015). Support surfaces for pressure ulcer prevention. *Cochrane Database of Systematic Reviews. Issue 9.* Art. No.: CD001735. DOI: 10.1002/14651858.CD001735.pub5.	Support surfaces for pressure ulcer prevention.	Systematic review.	The Cochrane Wounds Group Specialized Register (searched 15 April 2015) which includes the results of regular searches of MEDLINE, EMBASE and CINAHL and The Cochrane Central Register of Controlled Trials.	Pressure-relieving overlays on the operating table reduce postoperative pressure ulcer incidence, although two trials indicated that foam overlays caused adverse skin changes. Meta-analysis of three trials suggests that Australian standard medical sheepskins prevent pressure ulcers.	The relative merits of higher-specification constant low-pressure and alternating-pressure support surfaces for preventing pressure ulcers are unclear. Still, alternating-pressure mattresses may be more cost-effective than alternating-pressure overlays in the UK.	Level I
Shannon, Ronald J. MPH, BS; Brown, Lynne MBA, BSN, RN; Chakravarthy, Debashish PhD	Pressure Ulcer Prevention	A randomized.	Residents were assessed	A 67% reduction in	In nursing home facilities,	Level I

Pressure Ulcer Prevention Program Study, *Advances in Skin & Wound Care:* October 2012 - Volume 25 - Issue 10 - p 450-464 doi: 10.1097/01.ASW.0000421461.21773.32	Program Study.		for PU risk using the EQUIP-for-Quality risk assessment algorithm based on data from their Minimum Data Set (MDS 2.0), then assigned to either the PUPP program or control group (standard practice following AHRQ guidelines).	nosocomial pressure ulcers is attributable to the PUPP strategy over six months for MVH residents. The average six-month cost for an MVH Medicare resident is $1,928 and $1,130 for the control group and PUPP group, respectively.	PUPP helped reduce the prevalence of PUs by 67% in just six months. For 300 MVH residents, the expected yearly net cost savings due to PUPP is around $240,000.	
Sharp, C. A., Schulz Moore, J. S., & McLaws, M. L. (2019). Two-hourly repositioning to prevent pressure ulcers in the elderly: patient safety or elder abuse? *Journal of Bioethical Inquiry, 16*(1), 17–34. https://doi.org/10.1007/s11673-018-9892-3	Does the frequent two-hourly repositioning reduce pressure ulcers in elderly patients?	Quasi-experimental.	Cross-sectional survey.	Repositioning done at two-hour intervals does not reduce pressure ulcers. Other factors may be at play in maintaining the	Repositioning is not effective in managing pressure ulcers among older patients.	Level III

				development of bedsores.		
Stone, A. (2020). Preventing pressure injuries in nursing home residents using a low-profile alternating pressure overlay: a point-of-care trial. *Advances in Skin & Wound Care, 33*(10), 533-539.	Preventing Pressure Injuries in Nursing Home Residents Using a Low-Profile Alternating Pressure Overlay.	Qualitative study.	From December 2017 to September 2018, a point-of-care, multicenter, prospective observational study was done in two for-profit long-term care/skilled nursing facilities. Because of their limited mobility, the wound care team at the facility chose bed bound clients for enrollment.	Participants who used the AP overlay developed any new PI (stages 1-4), deep-tissue damage, or unstageable PI. The AP group's PI incidence was compared to the retrospective baseline PI incidence from the two nursing homes' same units.	Large-scale studies are also needed to better evaluate the efficacy and cost-effectiveness of the AP overlay in diverse post-acute settings. At two nursing homes, this study looked into the effectiveness of a low-profile AP overlay system for preventing PIs in high-risk mechanically ventilated patients. During the trial period, none of the study participants on the AP overlay acquired any PIs, compared to a baseline	Level VII

					incidence of 22%.	
Wood, J., Brown, B., Bartley, A., Cavaco, A. M. B. C., Roberts, A. P., Santon, K., & Cook, S. (2019). Reducing pressure ulcers across multiple care settings using a collaborative approach. *BMJ Open Quality, 8*(3), e000409. http://dx.doi.org/10.1136/bmjoq-2018-000409	Could care management strategies reduce pressure ulcers by 50% in year one and 20% in year two?	Qualitative study.	An experimental quantitative methodology was used.	Effective management planning in care facilities is effective in reducing pressure injuries.	Pressure ulcer management strategies that entail collaborative approaches reduce pressure ulcers in older patients.	Level VII
Yap, T. L., Kennerly, S. M., & Ly, K. (2019). Pressure injury prevention: outcomes and challenges to use of resident monitoring technology in a nursing home. *Journal of Wound, Ostomy, and Continence Nursing, 46*(3), 207. DOI: 10.1097/WON.0000000000000523	Pressure injury prevention.	Descriptive study.	Digital data on the frequency and position of residents were transmitted wirelessly from sensors worn on each resident's anterior chest to estimate nursing staff compliance with repositioning standard of care before	Digital data on the frequency and position of residents were transmitted wirelessly from sensors worn on each resident's anterior chest to estimate nursing staff compliance with repositioning standard of care before and after visual	Study findings support the usability of the patient monitoring system to facilitate repositioning. Implementation of multiple strategies for training, supplies, and communication may enhance uptake and effectiveness.	Level VI

			and after visual monitors were activated to cue staff.	monitors were activated to cue staff.		

Appendix B

GANTT Chart

Objective	May	June	July	August	September	October	November	December
Project planning: 1 Introduction of the Project. 2 Discuss Projects with a Chair. Problem and Causes. 3 DNP Project Approval. 4 IRB Proposal.								
Project Initiation: 1 Literature Review/Matrix. 2 Gap and Needs								

Assessment. 3 Stakeholders. 4 Connect with the Facility.								
Implementation of PI prevention: 1 Development Education Plan. 2 Meet with the Facility Wound Nurse. 3 Collect Data. 4 Project Implementations.								
Project monitoring: 1 Analysis Findings from Data. 2 Final Project Presentation.								

Appendix C

Work Breakdown Structure (WBS) for DNP Project

1.0 Project planning:

- 1.1. Introduction of project.
- 1.2 Discuss project with chair.
- 1.3 Problem and causes.
- 1.4 DNP project approval.
- 1.5 IRB proposal.

2.0 Project Initiation:

- 2.1 Literature review/matrix.
- 2.2 Gap and needs assessment.
- 2.3 Stakeholders.
- 2. Connect with the facility.

3.0 Implementation of PI prevention:

- 3.1 Development education plan.
- 3.2 Meet with a facility wound nurse.
- 3.3 Collect data.
- 3.4 Project implementation.

4.0 Execution phase:

- 4.1 Carry on the project.
- 4.2 Meet with the chair.
- 4.2 Work alongside with the facility.

5.0 Project monitoring:

- 5.1 Analysis findings from data.
- 5.2 Final project presentation.

Appendix D

Gap Analysis

Current State	Desire State	Best Practices	Proposed Solution

Limited mobility, improper repositioning, nursing staff lack of education, and insufficient turning of some older residents aged 65 and above develop a pressure injury.	Proper nursing education and training programs focused on pressure injury prevention. Nurses will be well-trained and well-educated to adopt basic measures to promote mobility and unload pressure.	A comprehensive head-to-toe skin assessment should be carried out on all residents in admission and daily for those identified at risk of a skin breakdown. Nurses should pay attention to vulnerable areas, especially over bony prominences, and skin adjacent to external devices. Should monitor reliable risk assessment tools and proper nutrition for residents at risk of pressure ulcer development. Should promptly implement a repositioning schedule of at least every two hours for a high-risk resident.	Containing PIs should be a problematic intervention for any critically sick resident who requires pressure injury prevention treatments. Evidence-based care must be used to plan and treat all pressure injuries, including those caused by medical devices. Clinical practice guidelines urge patient repositioning and sufficient support surfaces to lessen tissue distortion and shear and boost tissue perfusion. Nurses must be educated and trained in PI prevention to prevent pressure injuries. Additional efforts should be made to broaden and improve

			stakeholders' training and communication opportunities.

Appendix E

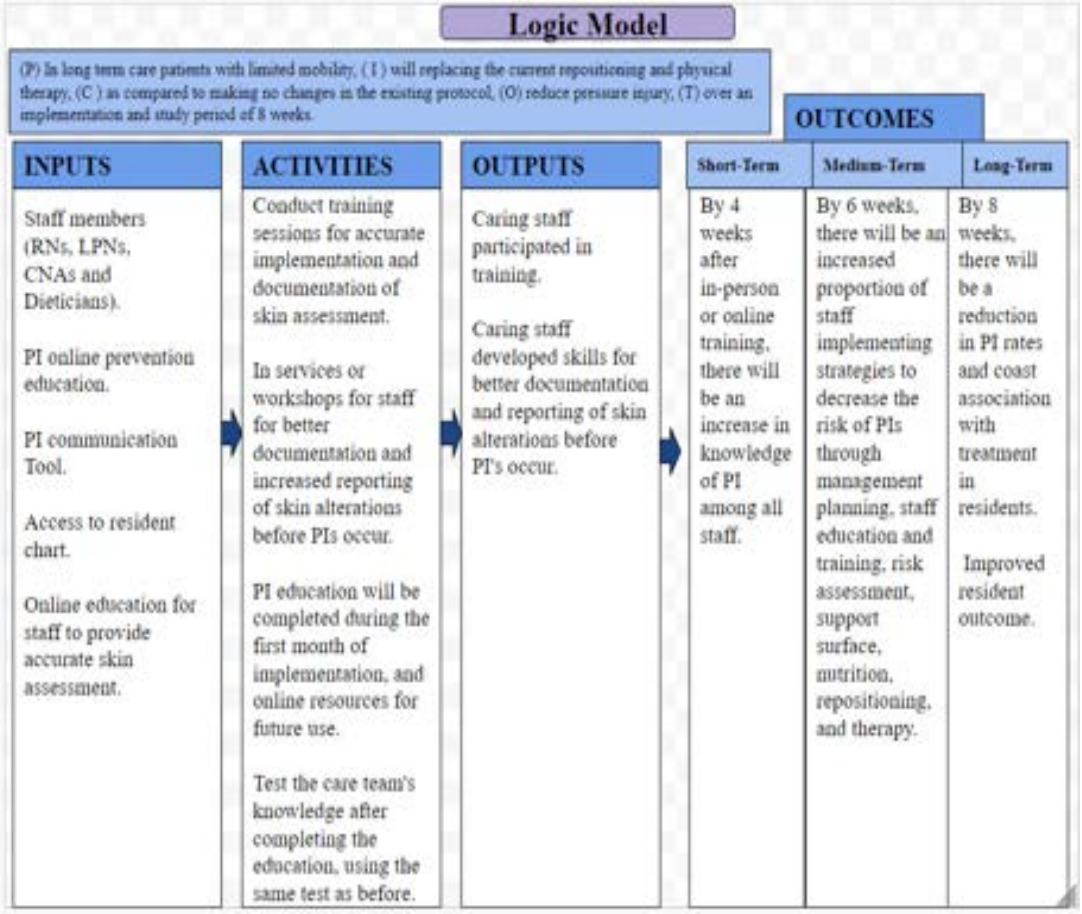
SWOT Analysis

Strengths	Weaknesses
• Certified wound care nurse with expertise in wound care best practices. • Project development support from doctors and nurse practitioners.	• Organization lacks staff, especially during this COVID period. • There isn't enough money to hire another CWCN. • Funding may be depleted. • Limitations on doctors' and nurse practitioners' ability to attend the classes.

Opportunities	Threats
• Increase the number of education opportunities to the care team. • Develop a protocol to prevent PIs and improve quality of life.	• Threats reduce the number of resources accessible, and private for-profit groups offer alternatives.

Appendix F

Logic Model



Appendix G

Pre-Implementation Survey

PLEASE DO NOT PLACE YOUR NAME OR IDENTIFYING INFORMATION ON THIS DOCUMENT

Pieper Pressure Ulcer Knowledge Test

For each question, mark I Don't Know or a Short answer

Pre-Survey Questionnaires

1. How do risk factors such as immobility, incontinence, impaired nutrition, and altered level of consciousness influence the development of pressure ulcers?
2. What do you think is the significance of having a systematic skin inspection at least daily for all hospitalized individuals at risk for pressure ulcers and at least once a week for those in long-term care?
3. Why is it important to massage bony prominences?
4. Why do you think individuals need assessment for risk of pressure ulcer development on admission to a hospital?
5. Do you think cornstarch, creams, transparent dressings (e.g., Tegaderm, Opsite), and hydrocolloid dressings (e.g., DuoDerm, Restore) protect the body against the effects of friction? Explain your answer.
6. Under which conditions could adequate dietary intake of protein and calories be maintained during illness?
7. What do you think is the significance of having a turning schedule written and placed at the bedside? PRE
8. How do heel protectors relieve pressure on the heels?
9. How do you explain the prevention of pressure ulcers using donut devices/rings? Please give examples.
10. Is it true that the head of the bed should be maintained at the lowest degree of elevation (hopefully, no higher than a 30-degree angle) consistent with medical conditions? Explain your answer.

Five Steps of the SSKIN Pressure Injury Prevention Care Bundle

1. Surface: make sure the patient is cared for on a support surface acceptable to their wants and level of pressure ulceration risk.
2. Skin examination: examine the skin fastidiously, totally, and significantly changing the patient's position at every shift relinquishment.

3. Kinetics/Keep Moving: if the patient cannot move by themselves, they'll need a change of position or help to alter their position as their condition and level of risk dictates.u
4. Incontinence/Moisture: the patient's skin has to be clean, dry, and free from prolonged exposure to wetness and the chemical elements of body fluids.
5. Nutrition/Hydration: adequate nutrition and association ought to be maintained, significantly within the patient who is unable to eat or drink and is at a risk of pressure ulcers.

Appendix H

Post-Implementation Survey

PLEASE DO NOT PLACE YOUR NAME OR IDENTIFYING INFORMATION ON THIS DOCUMENT

Pieper Pressure Ulcer Knowledge Test

For each question, mark I Don't Know or a Short Answer

Post-Survey Questionnaires

1. Explain why Stage I pressure ulcers are defined as intact skin with non-blanchable erythema in lightly pigmented persons.
2. Please explain why hot water and soap dry the skin and increase the risk for pressure ulcers.
3. Please explain how certain health aspects emerge in Stage III of pressure ulcers, such as partial thickness skin loss in the epidermis and/or dermis.
4. To what extent is skin loss, tissue necrosis, or damage to muscle, bone, or supporting structure in Stage IV pressure ulcers?
5. Please explain why persons confined to bed should be repositioned every three hours.
6. Please explain why a person should be at a 30-degree angle with the bed in a side-lying position unless inconsistent with the patient's condition and other care needs that take priority.
7. Why is it critical to reposition a person who cannot move while sitting in a chair every two hours?
8. To what extent is skin loss in Stage II pressure ulcers? Justify your answer.
9. Please explain the process of minimizing the skin's exposure to moisture on incontinence using underpads.
10. For healing to take place, how is necrotic tissue supposed to be on a wound bed in terms of color and appearance?

Appendix I

PowerPoint

Pressure Injury **Prevention Awareness** **Training** **By** **Shadrin Constance**	**Define Pressure Injury** A pressure injury to the skin is a result of constant pressure due to impaired mobility. The pressure results in reduced blood flow and eventually causes cell death, skin breakdown, and the development of and open wound. Pressure injury can occur in persons who are wheelchair bound or bed-bound, sometimes even after a short time (2 to 6 hours) (Zeller et al., 2006).
The Identify risk factors for pressure injuries • **Shearing and Friction.** • **Moisture.** • **Decreased Movement.** • **Decreased Sensation.**	**Common sites of Pressure Injury**

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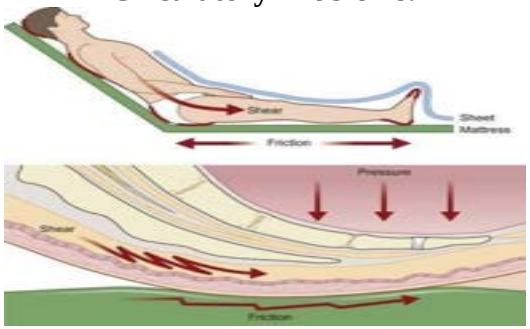
- **Circulatory Problems.**



- **Poor Nutrition.**
- **Age.**

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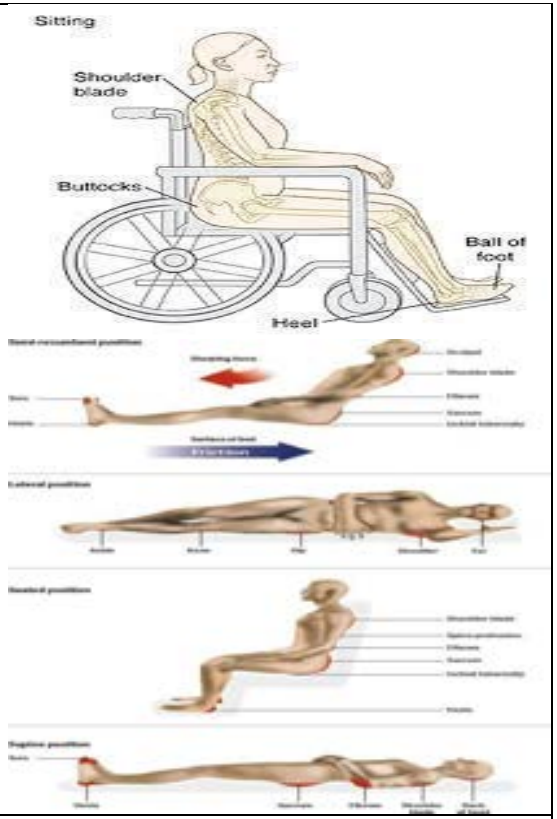

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Signs/symptoms of a pressure injury

- Unusual changes in skin color or texture.
- Swelling.
- Pus-like draining.
- An area of skin that feels cooler or warmer to the touch than other areas.
- Tender areas.

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Pressure Injury Stages

Stage I

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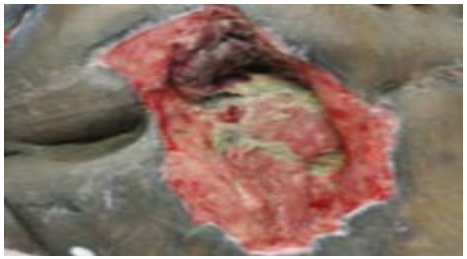
	Stage II  **Stage III**  **Stage IV**   **Unstageable**

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Importance of reporting change

- Many people with intellectual and developmental disabilities cannot express their grief or suffering. One of the risk factors for pressure injury is being unable to move about or walk. According to the evidence, nonverbal people are more likely to undertreat their discomfort. Knowing when someone is in pain and treating it enhances daily life, boosts the enjoyment of favorite activities, and lowers the risk of depression (Lewis, 2011). The existence of pain is a crucial indicator of a pressure injury (McGinnis et al., 2014).
- Any skin breakdown, temperature, or color variations should be reported immediately. Contact the nurse to report a change. The wound nurse of the facility should look at the resident immediately.

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Who can help you?

- Nurse Practitioner.
- Registered Nurse.
- Licensed Practical Nurse.
- The Facility Director of Nursing.
- The wound nurse.

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</table>

Questions	References
	Lewis, S., Dirksen, S., Heitkemper, M., Bucher, L., & Camera, I. (2011). Medical-surgical nursing: Assessment and management of clinical problems (8th edition). *Pain* (p.127-151). St. Louis, MO: Elsevier Mosby. McGinnis, E., Briggs, M., Collinson, M., Wilson, L., Dealey, C., Brown, J., … Nixon, J. (2014). Pressure ulcer related pain in community populations: A prevalence survey. *BMC Nursing, 13(16), 1- 10. doi:10.1186/1472-6955-13-6* Zeller, J. L., Lynm, C., & Glass, R. M. (2006). Pressure Ulcers. *Jama*, *296*(8), 1020. doi: 10.1001/jama.296.8.1020

Appendix J

SSKIN Bundle Protocol

	2 hours	4 hours	Comments
Frequency of Reposition Resident			

Date			
Time (24 hours)			
Surface			
Foam mattress			
Pressure relieving mattress			
Heel protector			
Appropriate seating			
Skin inspection			
Pressure areas checked			
Frequency of repositioning and skin inspection at least every 2 hours			
Keep moving			
Left side			
Back			
Right side			
Standing			
Sitting			
Incontinence Skin Care			
Incontinence			
Healthy skin			
Peri care			
Keep skin dry			
Intake and Output			
Nutrition			
Supplement Intake			
Fluids intake			

Meal and snack Intake			

Resident pressure injury prevention protocol

PRESSURE ULCER IDENTIFICATION POCKET PAD

Place the patient's/resident's name on the top of the pad, date it and place an "X" on the area on the body where you see the skin concern. Give this to the nurse and ask him or her to check the patient/resident. They will follow up as needed.

Date: _____ Time: _____

Patient's/Resident's Name: _____

Reporter: _____