Pressure Injuries: Quality Improvement

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Pressure injuries are a common problem in the healthcare system. Pressure injuries are a localized area of necrotic tissue that occurs when a certain pressure to the skin occurs over time (Hinkle & Cheever, 2018). Pressure injuries are associated with increased costs, lengthy hospital stays, and diminished quality of life for the patient (Hinkle & Cheever, 2018). Nurses need to maintain or improve a patient's skin integrity. The nurse's responsibility is to explain and educate the patient about pressure ulcers and implement interventions into their daily care to help maintain skin integrity and prevent pressure injuries. Nurses can use their knowledge about pressure injuries and gain more knowledge by finding strategies to learn more about quality improvement (QSEN Institute, 2020). The nurse can use skills to seek new information about pressure ulcers and prevent them by reading research articles. The attitude of the nurse is to focus on maintaining skin integrity and preventing pressure injuries. Quality and safety education for nurses helps ensure they have the proper skills, knowledge, and attitude to continuously improve the quality and safety of the healthcare system (QSEN Institute, 2020).

Article Summary

The article explains a conducted study that researches the use of information and technologies in preventing pressure injuries. The technologies used in the study were continuous besides the pressure mapping system (CBPM). The CBPM is a mat that has a thousand pressure sensors that lie under the patient. The sensors connect to a monitor that shows the body's pressure points (Hultin et al., 2019). If a red color appears, that means there is high pressure between the body and the underlying surface of the patient. The study by Hultin et al. (2019)

focuses on 31 orthopedic surgery participants because these patients are at high risk for pressure injuries due to lack of immobility. The participants used the CBPM for three days. The researchers gave information and a demonstration. The participants were encouraged to change their position when they saw the red or orange of the monitor (Hultin et al., 2019). The researchers conducted semi interviews on the fourth day. The interviews consisted of four essential questions knowledge, situation, participation, and usability. The results concluded that patients who used the CBMP learned how to prevent injuries, identify vulnerable areas susceptible to pressure injuries, and change positions (Hultin et al., 2019).

Introduction

The article explains a study conducted to research a new technology called a continuous bedside mapping pressure system. The study focuses on the participants' response to continuous beside mapping pressure system (Hultin et al., 2019). The primary purpose is to find new interventions and technology that will help prevent pressure injuries in healthcare facilities. Pressure injures are something that a nurse will most likely deal with in their carrier. Nurses need to know ways to prevent pressure injuries and how to take care of them. This article can show nurses a new and upcoming way to prevent pressure injuries.

Overview

The article relates to pressure injuries by researching a specific technology that will help prevent pressure injuries. The article is finding evidence to support the topic of pressure injuries and how to prevent them. The article gives nurses a new intervention to add to their care plan for a patient. Nurses can utilize continuous bedside pressure mapping to identify their patient's areas

that are susceptible to pressure by looking for redden areas on the monitor. According to the monitor reading from the continuous bedside pressure mapping system, they can provide care, changing positions.

The article describes a new approach to possibly preventing pressure injuries; this correlates to the quality improvement part of quality and safety education for nurses. The quality improvement section of the quality and safety education for nurses states use improvement methods and designs to continuously improve quality and safety for patients (QSEN Institute, 2020).

Quality Improvement

The study setting was at an orthopedic rehabilitation center, and the participants were older adults who underwent orthopedic surgery (Hultin et al., 2019). The participants are at high risk for pressure injuries due to age and immobility because of surgery. Continuous bedside pressure mapping systems (CBPM) can also be in hospitals and long-term care facilities; both places can and do deal with patients at high risk for pressure injuries. The resources needed for a continuous bedside pressure mapping system are people educated on the system and know how it works. All staff members should understand how to work the CBPM. Information technology (IT) is a resource since the CBPM is a technology device. CBPM is going to cost money. The institution will have to support the cost of CBPM financially. In the long run, the price of the CBPM will be worth it because it is helping prevention of pressure injuries that cost the institution money as well.

Continuous bedside pressure mapping system is real-time feedback. Patients can see their pressure points. If a patient sees a reddened area, they can adjust or move off that area. Patients are involved in their care and can do it themselves. The participants liked identifying their pressure points and changing positions themselves to see if the redden areas disappeared (Hultin et al., 2019). Not all patients can change sides themselves, so CBPM is also helpful for nurses who need to change their position. Nurses can visible see the reddened areas on the monitor of the patient susceptible pressure areas. Visibly seeing the monitor helps a nurse know when and what side the patient needs to change. The CBPM system benefits both nurses' and patients' safety. It helps patient safety by preventing fewer pressure injuries, which can be intense pain and psychological, social, and economic disadvantages (Hultin et al., 2019). The CBPM keeps nurses accountable. Pressure injuries can occur because of the lack of turning done by healthcare staff members. The CBPM helps keep nursing staff aware of the patient's pressure points and helps the nurse acknowledge the patient's needs.

Application to Nursing

Nursing implications are a part of the nursing process. A nurse uses the nursing process as a tool to help assess and create a plan of care for their patients. Nursing implications fall under the implementation part of the nursing process. Implementation is carrying out the plan of care made in the previous steps of the nursing process by nursing interventions (Hinkle & Cheever, 2018). Nursing implications are interventions that a nurse implements into the daily care of the nurse's patients. For example, a continuous bedside mapping pressure system is a nursing implication that nurses can implement into their daily care for patients at high risk for pressure injuries.

Practice

There are many ways a nurse can help prevent pressure injures. A nurse can help prevent pressure injuries by implementing daily nursing interventions into a patient's care plan. Interventions to help prevent pressure injuries are the best and preferred nursing practice. The first thing a nurse needs to complete is a Braden scale on each patient. The Braden Scale is a tool that will determine if the patient is at high risk for pressure injuries. The Braden scale scores patients off their nutrition, moisture management, mobility, and friction sheer (Taylor et al., 2019). Once the patient identifies a skin risk, the nurse will need to turn and reposition the patient every two hours or educate the patient to turn themselves every two hours.

Along with repositioning, the nurse can use position devices like a pillow, wedges, or pressure-reducing boots to help keep pressure off the body (Taylor et al., 2019). Another device a nurse can use is an air, fluid, or gel mattress for high-risk patients; this will help cushion bony prominences. Essential nursing interventions a nurse can implement into care are continually assessing the skin for skin redness or areas that look like a pressure injury is developing. The nurse should always maintain that the patient has dry skin and clean the patient ideally after incontinent episodes (Taylor et al., 2019).

Education

New technology, research, guidelines, protocols, and equipment are constantly evolving in healthcare. The nurse needs to stay up to date with the new research, technology, or even practices, and educational training is a perfect way to do that (Taylor et al., 2019). Providing staff with education about pressure injures is also a great way to help prevent or reduce the

occurrences of pressure injuries. Educational programs about pressure injuries should include the following pathophysiology and how they develop, risk factors, assessment tools, skin skincare and assessment, different types of positioning, and the use of preventive devices or technology (Porter-Armstrong et al., 2018). Education programs provide healthcare members with knowledge and skills about pressure injuries to help them make the clinically right decision for their patient care. Educational programs also help create behavioral and interventional changes in the recipient of the education, which will support the evidence of reducing pressure injuries (Porter-Armstrong et al., 2018).

Research

There is always room for more research, more studies, new technology to emerge in the healthcare world. Research never stops, even with preventing pressure injuries. New interventions, devices, or technology can emerge from research about preventing pressure injuries. For example, the continues beside pressure mapping system does not have much research conducted on it. That means more research will occur because the continuous pressure mapping system has not had much research yet. Research articles will have a section called limitations and strengths or a section that is a recommendation for future researchers. For example, in the Hultin et al. (2019) study, the study's limitations were explicitly stated. Some limitations included using one set, fewer male participants than females, and the population having difficulty figuring out how to fill out the questionnaire (Hultin et al., 2019).

Conclusion

Pressure injuries remain at a high prevalence in long-term settings (Hultin et al., 2019). Pressure injuries are an ongoing problem in the healthcare field. Pressure injuries affect the

patient with intense pain and psychosocial, social, and economic processes (Hultin et al., 2019). The nurse's main priority for pressure injuries is preventing them if a patient does not have one before seeing the nurse. The nurse's job is to implement techniques and interventions into a patient's daily care at high risk for pressure injuries. The nurse needs to educate the patient about pressure injuries. However, the nurse needs to educate themselves about preventing pressure injuries, the new technologies, devices, and research. It is the nurse's responsibility to keep up with the new updates. Nurses' quality and safety education help the nurse stay up to date on quality improvements like pressure injuries. Quality and safety education will help nurses gain skills, knowledge and maintain the right attitude to help improve the quality and safety care they give (QSEN Institute, 2020).

References

Hinkle, J.L., & Cheever, K. H. (2018). *Brunner & Suddarth's textbook of medical-surgical nursing* (14th ed.*)*. Wolters Kluwer Health Lippincott Williams & Wilkins.

Hultin, L., Karlsson, A., Ohrvall, M., Gunningberg, L. (2019). Information and communication technology can increase patient participation in pressure injury prevention: A qualitative study in older orthopedic patients. *Journal of Wound, Ostomy & Continence Nursing, 46*, 383-389. https://doi.org/10.1097/WON.0000000000000568

Porter-Armstrong, A., Moore, Z., Bradbury, I., McDonough, S. (2018). Education of healthcare professionals for preventing pressure ulcers. *The Cochrane Database of Systematic Reviews*, *5*(5), https://doi.org/10.1002/14651858

QSEN Institute (2020). *QSEN Competencies*. https://qsen.org/competencies/pre-licensure-ksas/#quality_improvement

Taylor, C., Lynn, P., & Bartlett, J. (2019). *Fundamentals of nursing: The art and science of person-centered care* (9th ed.). Wolters Kluwer