



# Standardized neonatal skin care, an educational journey for nurses.

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## Introduction

Neonatal intensive care patients are at high risk of developing pressure ulcers. The incidence of pressure ulcers within two days of admission can be as high as 23%. (Scheans, 2015). Skin injury prevention for premature infants can easily be overlooked in a busy NICU. (Grosvenor, O'Hara & Dowling, 2016). It is a priority to tailor education for nurses on pressure ulcer prevention and treatment to minimize complications and promote optimal growth and development beyond simple survival. (Ahn, Lee, & Cho, 2020).

## Research Question

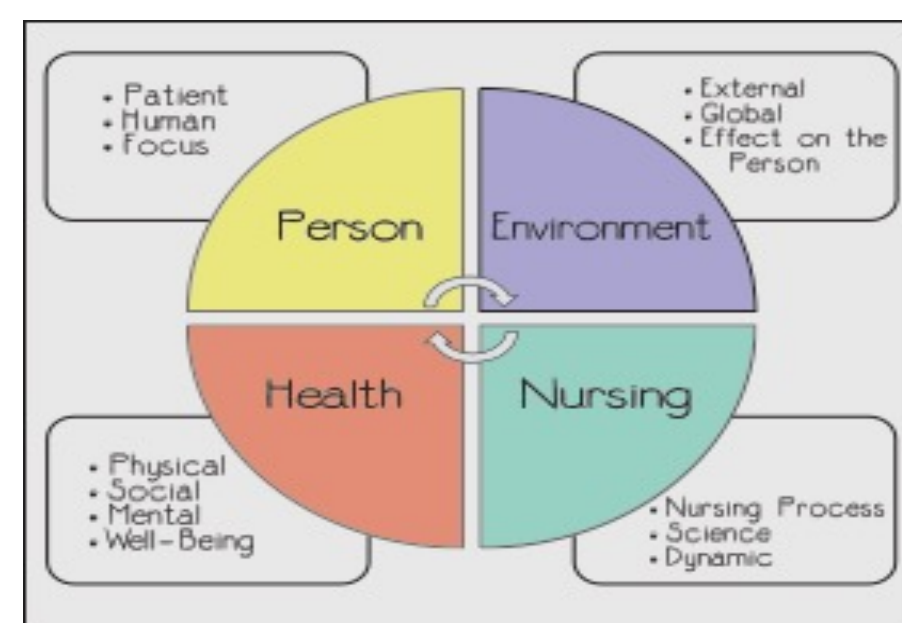
In acute inpatient neonates, what is the effect of standardized skin care nursing staff education on the incidence of hospital acquired pressure injuries compared to no standardized staff education.

## Purpose

The purpose of researching education measures for nurses in skin care is to prevent hospital acquired pressure injuries and to reduce preventable injuries, promoting well being of neonates.

## Conceptual Framework

Jean Watson's nursing theory of *Philosophy and science of caring*, integrates the concepts of human, health and the environment and how they influence care for others. Carative factors developed from a hierarchy of needs includes concepts of the patient's need to have restored health and a healing environment with preventative measures to reduce risk of developing hospital acquired pressure injuries.

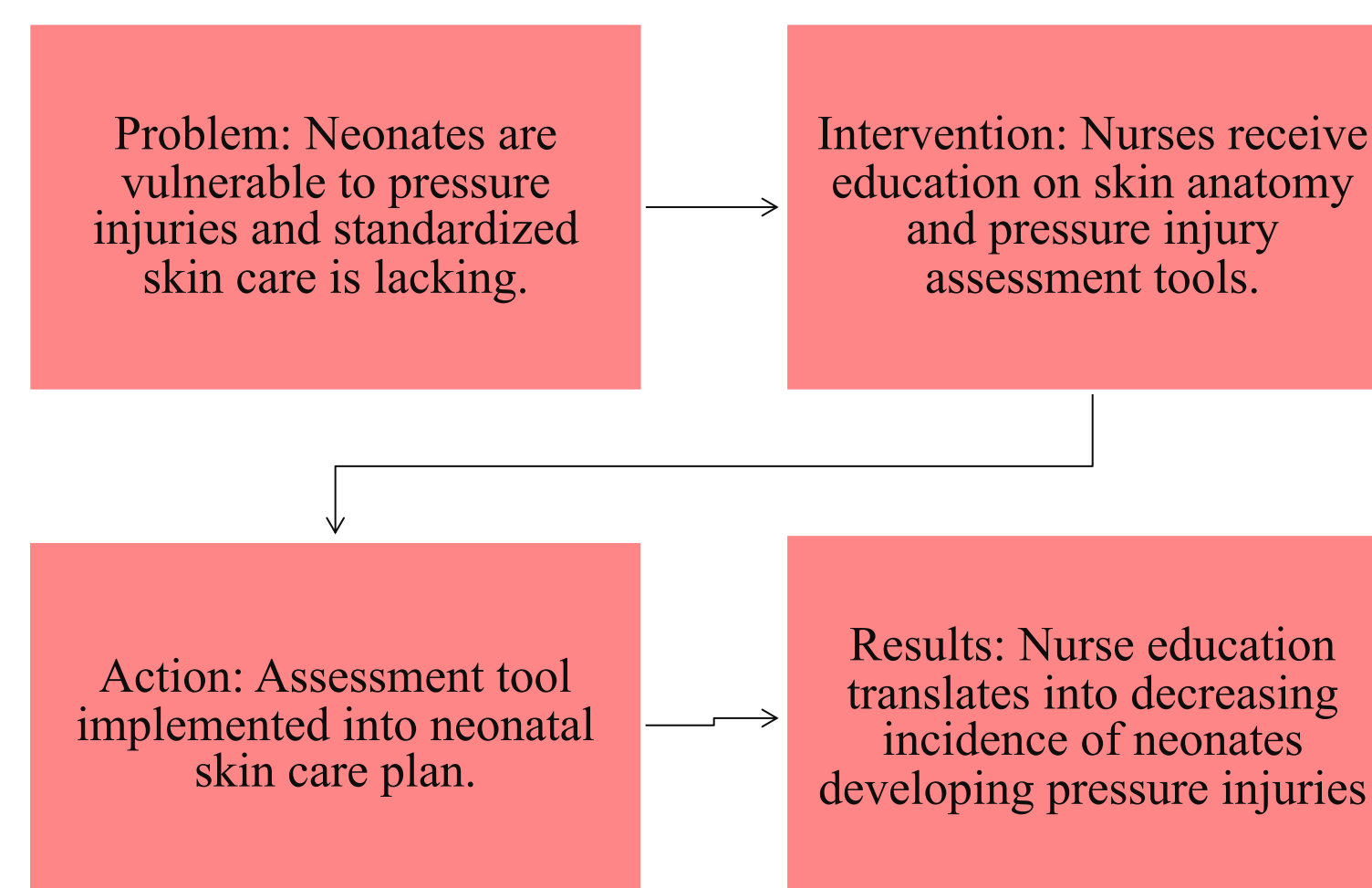


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## Methods

- A quasi-experimental design evaluating effects of using a skin nursing guideline for training and evaluating its effects. Inclusion criteria required nurses to have greater than six months of experience in neonatal intensive care units. 46 nurses participated with 23 in a control group and 23 in an education experiment group. (Ahn, Lee, & Cho, 2020).
- A qualitative participatory action research design utilized diagnosis, planning action, taking action and evaluating action to utilize education in reduction of skin injuries in infants. This study was conducted using focus groups. Seventeen nurses out of a sample of 27 nurses were recruited. Inclusion criteria stipulated that nurses must have a minimum of five years of clinical experience in neonatal care and had used the neonatal tissue viability risk assessment tool. (Grosvenor, O'Hara & Dowling, 2016).
- A literature search for paediatric pressure ulcer risk assessment tools. (Grosvenor & Dowling 2018). This study reviews tools applicable in determining pressure ulcer risk required for nurse education to provide a comprehensive skin assessment for neonates.
- Ethical approval for the action research study was granted by the hospital's ethics committee. (Grosvenor, O'Hara & Dowling, 2016). Human subject protection achieved through IRB approval and informed consent obtained from study participants. (Ahn, Lee, & Cho, 2020).

## Pressure ulcer education for nurses



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A healing NICU environment promoting well being of neonates

## Results

- Educational material improved nursing knowledge as evidenced by a mean knowledge score increase from 20.0 to 27.2. Both the group that received the booklet and the group that also had a PowerPoint presentation were evaluated together as there was little difference.
- Confidence in skin care practice did not significantly improve. (Ahn, Lee, & CHO, 2020).
- The guideline developed, helps nurses easily understand the contents. The illustrations reflect infants' body and proportions and features. (Ahn, Lee, & CHO, 2020).
- Skin care practices vary widely by individual nurses. Need for standardized skin care established. (Grosvenor, O'Hara & Dowling, 2016).
- Documentation of skin assessment requires using a Neonatal Tissue Viability Risk Assessment Tool for consistency monitoring. (Grosvenor, O'Hara & Dowling, 2016).
- Further education on the tool is required so that all nurses score infants similarly.
- Standardized skincare guidelines result in improved skincare practices. (Grosvenor, O'Hara & Dowling, 2016).
- Evidence-based accountable nursing care is achievable using a validated reliable risk tool in conjunction with nursing clinical judgement. (Grosvenor & Dowling, 2018).
- Literature search produced 9 pediatric pressure ulcer risk tools. Six tools published with few measures that are validated. (Grosvenor & Dowling, 2018).
- Skin risk tools ensure safer healthcare and improves clinical practice and patient outcomes. (Grosvenor & Dowling, 2018).

## Implications for Nursing

- Acute care neonates require standardized skin care, utilizing a guideline developed for neonatal pressure injury prevention. All nurses working in the same best practice guidelines for skin care will reduce the 27% incidence of pressure ulcers can be reduced in the NICU setting. (Scheans, 2015).
- Pressure injury prevention education specific to the neonatal population is lacking. Most prevention and treatment protocols are extrapolated from adult practice. (Scheans, 2015).
- Implementing skin risk assessment tools raise awareness and improve skincare practices, documentation and communication. (Grosvenor, O'Hara & Dowling, 2016). Staff require training on specific steps of skin care.
- The studies reviewed indicated a lack of education in neonatal nursing on pressure injury prevention and quality improvement interventions were implemented in response to studies findings.

## Conclusion

Education on prevention of pressure injuries equips neonatal nurses to effectively care for infants at risk for developing hospital acquired pressures injuries. Implementing a skin risk assessment tool standardized for neonates will provide evidence based best practice care. Without further education for nurses there will not be a decrease in the incidences of neonatal pressure injuries.

## References

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