



# Effectiveness of educational intervention in the prevention of pressure injury: a quasi-experimental study

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# **ABSTRACT**

**Aim:** to analyze the effectiveness of an educational intervention with intensive care nursing professionals on the knowledge of preventive measures for pressure injury. **Method:** quasi-experimental study (beforeafter), with 145 nursing professionals. The Knowledge Test on Pressure Injury and an educational intervention based on Ausubel's Theory of Meaningful Learning will be applied. The data will be analyzed by the Chi-Square, McNemar, Mann-Whitney and Binomial statistical tests, considering a significance level of 5% and a confidence level of 95%. **Expected results:** the educational intervention applied to nursing professionals in the context of intensive therapy on prevention of pressure injury will show significant changes in post-learning knowledge change.

**Descriptors**: Education, Continuing; Nursing; Pressure Ulcer; Intensive Care Units.

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## INTRODUCTION

The National Pressure Ulcer Advisory Panel (NPUAP) defines pressure injury as a localized lesion on the skin, underlying tissues or structures, commonly on a bone prominence, resulting from sustained pressure, including the combination of friction and/or shear, or related to the use of a medical device or other artifact<sup>(1)</sup>.

With respect to etiology, this is a social and public health problem, both nationally and internationally, of multifactorial, economic, educational causality, and an incidental result. It is one of the most reported iatrogenic lesions in developed countries.

Pressure injury occurs due to the influence of several intrinsic and extrinsic risk factors, such as immobility, pressure, friction and shear forces, incontinence, age extremes and overload in risky body areas. Consequently, they cause a number of additional problems, including pain, deformity, loss of function and independence, and an increased risk of serious infection that prolongs the time and cost of hospitalization. It is considered that a careful and periodic evaluation of risk is essential in the practice of nurses.

The prevention of pressure injury in hospitalized patients is not so simple, even with technologies. Such injuries are avoidable with the use of effective measures and with the commitment of the professionals to act together avoiding this problem, widely discussed by experts for decades.

In the nursing area there are gaps in knowledge, practice and attitudes presented by professionals on pressure injury<sup>(2)</sup>. The discussions and updating from the permanent education with the professionals will minimize the deficits in the assistance in the different scopes, evaluation, prevention and treatment, with reduction of the incidence of this event.

This project has as its conceptual basis the Constructivist Theory of Significant Learning, according to which an apprenticeship that varies from mechanic to meaningful, facilitating the understanding of related contents through an educational intervention.

Prevention is considered to be one of the most effective methods to minimize the occurrence of pressure injury. Thus, it is necessary that the evaluation of preventive strategies be carried out with security and grounding in scientific knowledge.

In the hypothesis investigated, the educational intervention on preventive measures for pressure injury, applied to nursing professionals in the context of intensive care, will show significant changes in post-learning knowledge change.

## AIM

To analyze the effectiveness of an educational intervention with intensive care nursing professionals on the knowledge of preventive measures for pressure injury.

## **METHOD**

Quasi-experimental research (before-after), comparative, educational intervention and quantitative approach.

The population will be made up of nursing professionals (n=232), with a sample sized for accessible populations (n=145), in compliance with the 5% and 95% confidence specifications. It was adopted as inclusion criterion to be a nursing professional, regardless of gender. Professionals absent from care activities were excluded during the period of data collection.

The research will be developed in three stages: Stage 1 - Application of the pre-test or pre-intervention, in which the sociodemographic data were collected, and the instrument Pieper's Pressure Ulcer Knowledge Test (P-**PUKT)** will be applied<sup>(3)</sup>. The Brazilian version of the P-PUKT is composed of 41 questions, two of which are related to the evaluation, six to the classification and the others to the prevention of pressure injury. Each affirmative can be answered with the options "true", "false" or "do **not know**", considering a percentage of 90% of correctness or more of the items appropriate. Items left unanswered or answered as "do not know" are considered incorrect and therefore will not be punctuated. It also contemplates two subjective questions.

of the educational intervention based on the Constructivist Theory of Significant Learning of Ausubel, addressing the items: etiological factors; risk factors; scale of risk assessment; NPUAP guidelines; classification; dimension and practice in each institution on prevention; stimulus to prevention by providing tools, risk assessment, and incidence monitoring; and identification of barriers to prevention, with the factors hindering professionals.

**STEP 3 - Post-intervention or post-test application:** after the educational intervention, the P-PUKT instrument will be reapplied to evaluate the effectiveness of the educational intervention on the professionals' knowledge.

Data collection and educational intervention will be carried out from March to December 2018. The study project was approved by the Research Ethics Committee under opinion No. 2,495,293.

For the analysis, SPSS Statistics for Windows\*, version 20.0 will be used, through which

the Chi-Square, McNemar, Mann-Whitney and Binomial tests will be applied, considering a significance level of 5% and a confidence level of 95%.

## **EXPECTED RESULTS**

Enable preventive measures for pressure-related injury to intensive care nursing professionals and thus demonstrate significant changes in the post-learning knowledge change of an educational intervention, using Significant Learning Theory as a teaching strategy, favoring the search for knowledge among the participants.

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