

Evaluation of patient
outcomes pressure
ulcer prevention
mattresses nursing
essay...



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Nurses have done many research studies on pressure ulcers prevention over the past few years. Many studies have been done as development of pressure ulcers can lead to deterioration of patient's condition due to sepsis from pressure ulcers. These will lead to longer length of stay in hospital and higher healthcare cost. Thus many nurses are looking for better and cheaper way to reduce pressure ulcer development.

This is a research critique on a quantitative research article " Evaluation of patient outcomes: pressure ulcer prevention mattresses" written by Linda Rafter, published by British Journal of Nursing in Year 2011. A critique is " a critical, balanced appraisal of a research report" (Polit & Beck, 2010), which will look into the strengths and weaknesses of this article, and also the meaning and importance of this study on pressure ulcer prevention (Burns & Grove, 2011).

Abstract

According to Burns and Grove (2011, p. 55), the abstract " usually include the study purpose, design, setting, sample size, major results, and conclusions". In this article, the author was specific with the equipments used and she clearly analyzed the results of the study. However, the author did not mention about the study design and purpose of the study and where was the study done. Parahoo and Reid state that recommendations should also be covered in the abstract (Ingham-Broomfield, 2008). In this article, although the sample size of the study was not clearly stated, Rafter (2011) recognized that the sample size was small and suggested a larger study to help prove its reliability. The author used word like " interesting" which

might not be that of others. The abstract could be improved by presenting her information into headings for clearer understanding, and the study purpose and design should be included in the abstract so that readers can decide if they would like to read the full text study report (Polit & Beck, 2010).

Introduction (Background): Research Problem and Purpose

According to Bassett and Bassett (as stated in Coughlan, Cronin & Ryan, 2007), the research problem is often expressed early in the study. Rafter (2011) did clearly present the research problem and purpose, as well as the “development of pressure ulcers” (Rafter, 2011) significant in our nursing practice. Unfortunately, the purpose, stated under “The aims of study”, was only presented at the end of the introduction.

Introduction (Background): Research Questions and Hypotheses

Research questions are statements of purpose which are rephrased as an interrogative statement (Polit & Beck, 2010), and the hypothesis is a statement that predicts the relationship between two or more variables (Burns & Grove, 2011). Rafter did not provide specific research questions in her study and this study is an audit tool targeting the use of different pressure relieving mattresses. Thus the hypothesis is in relevance to the efficacy of the pressure relieving mattresses.

Introduction (Background): Theoretical/ Conceptual framework

The framework of a study should direct the researcher in the development of the study and explain the significance of the study in nursing practice (Burns <https://assignbuster.com/evaluation-of-patient-outcomes-pressure-ulcer-prevention-mattresses-nursing-essay/>)

& Grove, 2011). In this research study, Rafter uses the Health Outcome Framework.

Literature Review

Literature Review will provide the readers with the information on current practice, the knowledge gap of research problem and the contribution of the current study to the practice problem (Burns & Grove, 2011). Coughlan, Cronin and Ryan (2007) mentioned that information from primary source is more favorable. Rafter did use primary sources for her literature review, but she uses guidelines from the European Pressure Ulcer Advisory Panel (EPUAP) instead of evidence-based data in most part of her literature review and her literature review are mainly on the confounding variables (e. g. compressive force, shear, tissue tolerance and moisture) instead of the research problem. Burns and Grove (2011) also mentioned that the literature review must be sufficient for the readers to understand the research problem. The sources must be relevant to the study and need to be printed within 5 years. However, the literature review done by Rafter is between Year 1986 to 2010.

Ethical considerations

Ethical committee will have to give approval and ensure that ethical principles are applied (Coughlan, Cronin & Ryan, 2007). However, in this study done by Rafter (2011), she mentioned that ethic approval was not obtained as this study was just an evaluation audit. Patients were asked if they were willing to participate in her study, but she did not state if an informed consent was provided. She only mentioned that patients were <https://assignbuster.com/evaluation-of-patient-outcomes-pressure-ulcer-prevention-mattresses-nursing-essay/>

included in the study if they were “ happy” to participate. She failed to define what she meant by “ happy” and did not published if a written consent was taken.

Methodology: Research Design

The research design of the study will explain the methods used to prove the research questions and hypothesis (Polit & Beck, 2010) and it can also be referred as the blueprint of the study (Burns & Grove, 2011). The design provides control over the study and thus it increases the likelihood that the results are reliable (Burns & Grove, 2011). Rafter did not mention the type of research design she adopted. However, she did clearly explain the steps taken to complete her research study. By reading through her description of her research design, it is likely that the research design she used was the Experimental design.

Methodology: Sampling Design

Sampling involves a group representing the population which is being studied (Burns & Grove, 2011) and in a quantitative study, sampling can be either random or non-random (Polit & Beck, 2010). Rafter (2011) uses the probability sampling design in her study whereby the mattresses are randomly allocated to her participants. The author also recognizes that her sampling size is too small and the results might not be very reliable. According to Coughlan, Cronin and Ryan (2007), using small samples can increase the risk of sampling error, thus the sample size is important in important in a quantitative study.

Rafter (2011) explained clearly how she recruited her participants. However, she did not take the Waterlow Score, the Malnutrition Universal Screening Tool Score, demographics, mental status and other medical conditions into considerations when recruiting her participants. These could affect the results of the study and she should take them into consideration at the start of the study. The turning frequency should preferably be constant for all patients as it is one of the factors affecting development of pressure ulcers.

Methodology: Data collection and measurement

According to Polit and Beck (2010), data collection can be cross-sectional or longitudinal. In this article by Rafter, she did not identify the type of data-collection design used. Data collection methods include interviews, questionnaires, attitude scales and observational tools, and questionnaires are most commonly used (Coughlan, Cronin & Ryan, 2007), and questionnaires can help avoid interviewer bias (Ingham-Broomfield, 2008). In this study, the ward staff will assess the patient's skin condition daily and the audit coordinator will do the assessment three times a week. Rafter (2011) interviews her participants and questionnaires are done on participants who were on the mattress for a week or those who withdrawn from the study on their own accord. A different set of questionnaire was also prepared for the ward staff to get their evaluation on the two mattresses. Ingham-Broomfield (2008) states that the researcher should explain why that particular method was selected. However, Rafter did not explain and publish her questionnaires.

Results: Data Analysis

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Data analysis in quantitative studies is presented in numbers, and these numbers itself do not have any meaning. Thus the researcher will need to put meaning to these numbers (Ingham-Broomfield, 2008). Rafter (2011) used Microsoft Excel to analyze the data she collected, which he then presented her results in graphs. Her graphs clearly stated what these numbers represent.

Statistical tests are done to validate the hypotheses (Polit & Beck, 2010). Statistical test was not performed in this study as this study is an audit tool and Rafter (2011) recognized that her sample size was too small.

Discussion/ Recommendations

This study is not adequate for an evidence-based practice as the population was too small and the results might not be reliable. The trial period for each participant was too short and the outcome might not be trusty. I agree with the author that a larger study will be beneficial in showing the effectiveness of the mattresses.

The results presented evaluate the patient's comfort level and the staff's opinions of the two mattresses based on questionnaires. The research problem of this study is on the development of the pressure ulcers, but no results on the number of patients who developed pressure ulcers were presented. Thus, the results do not portray how these mattresses are effective in pressure ulcers.

Looking into the cost effectiveness of these mattresses can be considered in further study. Healthcare cost can be hefty, thus reduce healthcare cost from these mattresses will benefit the patients too.

Conclusion

This article is well-organized as it is divided into sub-headings for easier reading. However, according to Coughlan, Cronin and Ryan (2007), the aims of the study should be presented early. Rafter (2011) recognizes that the limitations of her study and suggested a larger study. Rafter (2011) is reliable to a certain extent as she is a Tissue Viability Specialist and is also an Honorary Professor in the Nursing Faculty of Health and Life Sciences of De Montfort University of Leicester and Wound Care Solutions. Rafter should clearly explain how her participants were recruited and for ethical considerations, I would suggest that an informed written consent should be obtained.

Summary

The ultimate outcome of a research study is to obtain information that would benefit nursing practice. Pressure ulcer development has always been a significant problem in the healthcare settings as we do not want our patients to have unnecessary extended length of stay in the hospital due to pressure ulcers and leading to higher healthcare cost. Thus we can take Rafter's suggestion to do a larger study to determine the efficacy of the pressure relieving mattresses.