

Critique Part 1

Effects of Aloe Vera on Pressure Injuries

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A basic fundamental in the integumentary care of patients is avoiding conditions that can precipitate pressure ulcers. However, pressure ulcers remain a problem in the healthcare setting and create a large impact on the physical and mental well-being of patients. Compromised skin can lead to immobility and can furthermore instill a sense of dread in the patient as their social and spiritual well-being declines. Authors Hekmatpou, Mehrabi, Rahzani and Aminiyan discuss and analyze the hypothesized concept that Aloe Vera gel can decrease the incidence of pressure ulcers and focus their experimentation on this important topic.

Problem and Purpose

The problem statement by Hekmatpou, Mehrabi, Rahzani, and Aminiyan clearly stated the importance of the topic being studied. The researchers state that a major integumentary problem is the high incidence of pressure ulcers (PU) that occur relative to increased age, physical immobility and limitations, using sedatives, malnutrition, and incontinence of feces and urine. Aloe Vera gel is a factor that when applied concurrent to routine PU nursing interventions may diminish the reported incidence of pressure ulcers in hospitalized patients. Pressure ulcers pose a risk to patient integumentary health, patient mobility, and general patient well-being (Hekmatpou et al., 2016). The purpose of the research was clearly supported by explaining the meaningful, yet negative, connotations a pressure ulcer has on an individual's quality of life. The authors of the study state that patient quality of life is diminished as skin that is not intact can have psychological, physical, social, and spiritual significance (Hekmatpou et al., 2016). The relationship between the independent and dependent variables was clearly stated. The independent variable is the application of Aloe Vera gel on hospitalized patients while the dependent variable is the incidence of pressure ulcer occurrence in the experimental group (Hekmatpou et al., 2016). There is significance between Nursing and the purpose of the research

study. A pressure ulcer is a nursing concern that will continue to be of importance for as long as the approximately 3 million adults in the United States are affected, and for as long as skin care, mechanical loading, support surfaces, and nutrition remains lacking (Lyder & Ayello, 2007).

Method

This is a longitudinal experimental design study (multiple data collection points are achieved over an extended period of time) where patients were randomly assigned into a control group and experimental group, which was further based on the blocking sampling method (Hekmatpou et al., 2016). Appropriate comparisons were made to enhance interpretability of the findings by determining the causality between applying Aloe Vera gel on Grade I pressure ulcers and the effect it has on reductions in pressure ulcers (Polit & Beck, 2013). Furthermore, a placebo was used on patients within the control group in order to determine the significance of the Aloe Vera gel. According to Polit and Beck, there is an existing relationship (a criterion in establishing a causal relationship in an experimental design) mentioned in the study, between Aloe Vera gel and skin integrity, which the authors of the study use to further explain the causality between the two. An appropriate number of data points were obtained by collecting pretreatment data and then grouping 40 hospitalized patients in the control group, and another 40 hospitalized patients in the experimental group (Hekmatpou et al., 2016). The design minimized biases and threats to the internal and external validity of the study by following an experimental design that is triple blind, randomized, and attrition was minimized by having strict inclusion criteria, which investigated patient willingness to participate (Hekmatpou, et al., 2016).

Population and Sample

The population included was identified and described through patient willingness to be involved in the study, lack of skin disease, age over 18 and under 65 years, patients who are at

risk for skin breakdown and who have a Braden score of less than 13-14, lack of pressure ulcers on admission, and patient admission of less than 24 hours. Also, patient exclusion criteria were identified which then led to a more thorough description of the sample population (Hekmatpou et al., 2016). The researchers developed a sampling plan that specified in advance how participants will be selected and whose results will be used to generalize external populations (Polit & Beck, 2013). This was done by verifying eligibility and by specifying required characteristics, which are seen as 'desirable' and thusly, minimized sample biases (Polit & Beck, 2013). Through inclusion criteria (targeted sampling) the researchers collected data from a demographic questionnaire and selected 80 valid participants (Hekmatpou et al., 2016). The sample size within the study was adequate as its present results are consistent with those of other similar studies (Hekmatpou et al., 2016). However, there was no mention of a power analysis used to estimate the study's sample size.

References

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