



Original Research

Coconut Oil Massage Reduces the Risk of Pressure Injury in Bedridden Patients: A Prospective Study.

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Abstract:

Pressure injuries are a significant concern in healthcare, affecting bedridden patients worldwide. This prospective study aimed to investigate the effectiveness of coconut oil massage in reducing the risk of pressure injury in bedridden patients. A quasi-experimental research approach was adopted, with 20 patients selected through purposive sampling. The Braden scale was used to assess the risk of pressure injury. Results showed a significant reduction in the risk of pressure injury in the experimental group. This study concludes that coconut oil massage is an effective and cost-efficient approach to preventing pressure injuries in bedridden patients.

Keywords: Pressure Injury, Bedridden patient, coconut oil. HAPU

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Introduction:

Pressure injuries, also known as pressure ulcers or bedsores, are a significant concern in healthcare settings, particularly among bedridden patients. These debilitating wounds can lead to prolonged hospital stays, increased healthcare costs, and diminished quality of life. Despite advancements in wound care, pressure injuries remain a persistent challenge, underscoring the need for effective preventive strategies¹.

Recent studies have highlighted the potential benefits of natural oils, such as coconut oil, in promoting skin health and preventing pressure injuries. Coconut oil, rich in medium-chain triglycerides (MCTs) and antioxidants, has been shown to possess anti-inflammatory, antimicrobial, and moisturizing properties, making it an attractive adjunctive therapy for pressure injury prevention.²

This prospective study aims to investigate the efficacy of coconut oil massage in reducing the risk of pressure injury in bedridden patients, providing valuable insights into the potential role of this natural intervention in pressure injury prevention.³

Study Aim:

1. Measure the risk of developing pressure injury among bedridden patients.
2. Examine the effect of coconut oil massage on reducing the risk of pressure injury.
3. Reduce healthcare costs by identifying preventable risk factors.

Methodology:

Research Design:

Quasi-experimental research approach with a non-equivalent time series design.

Sample Size: 20 bedridden patients (10 experimental, 10 control).

Sampling Technique: Purposive sampling.

Tool: Braden scale.

Location: Female general ward, Male general ward, HDU, ICU- Multi-speciality hospital, Kolkata.

Results:

Group	Mean	MD	SDD	SE	't'
Experimental group	4.4		1.97		
		1.87		0.68	2.71*
Control group	2.53		1.78		
't' df (18) = 2. 10, p< 0.05*					

Table 1. Mean, mean difference, , SDD, SE and unpaired “t” test between pre-test and post test score for risk of developing pressure ulcer between 1st and 6th day in experimental group and control group.⁴
n=20 (10+ 10)

The study's findings revealed a significant reduction in the risk of pressure injury in the experimental group, with a 't' value of 2.71 (df = 18). This outcome was observed in a cohort of 20 bedridden patients, with a mean age of 60.5 years, comprising 9 males and 11 females, who had been bedridden for 2-6 weeks. The research hypothesis was accepted at a 0.05 level of significance.⁵

Discussion:

The findings of this study demonstrate a significant reduction in the risk of pressure injury in the experimental group, with a 't' value of 2.71 (df = 18). This outcome is consistent with previous studies that have investigated the use of coconut oil massage in preventing pressure injuries.

A study by Khorshid et al. (2014) found that topical application of coconut oil significantly reduced the incidence of pressure ulcers in critically ill patients. Similarly, a study by Kumar et al. (2018) demonstrated that coconut oil

massage improved skin integrity and reduced the risk of pressure ulcers in bedridden patients.

The current study's findings are also in line with the recommendations of the National Pressure Injury Advisory Panel (NPIAP), which suggest that regular massage and skin care can help prevent pressure injuries (NPIAP, 2019).

The mean age of the participants in this study was 60.5 years, which is consistent with the age range of patients typically at risk for pressure injuries (Bergstrom et al., 2013)⁶. The study's sample size was small, but the significant reduction in pressure injury risk observed in the experimental group suggests that coconut oil massage may be a valuable adjunctive therapy for pressure injury prevention.

Future studies with larger sample sizes and longer follow-up periods are needed to confirm these findings and explore the potential benefits of coconut oil massage in preventing pressure injuries

This study demonstrates the effectiveness of coconut oil massage in reducing the risk of pressure injury in bedridden patients. The results suggest that coconut oil massage is a cost-efficient approach to preventing pressure injuries.⁷

Conclusion:

Coconut oil massage is an effective method for reducing the risk of pressure injury in bedridden patients. This study supports the use of coconut oil massage as a preventive measure for pressure injuries.

Limitation:

The limitations of the study included, lack of self-motivation among staff, skill mixed staff performance data received and uniformity in environment control was not possible.

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