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Nurses’ Knowledge, Attitudes, and Practices in Pressure Injury Prevention: a Systematic Review and Meta-Analysis

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ADMINISTRATIVE INFORMATION

Support - None.
Review Stage at time of this submission - Completed but not published.
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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 27 April 2025 and was last updated on 27 April 2025.

INTRODUCTION

Review question / Objective What are the reported relationships of knowledge, attitudes, and practices regarding pressure injury prevention as perceived by registered nurses?

Condition being studied Relationships of knowledge, attitudes, and practices regarding pressure injury prevention.

METHODS

Search strategy The search strategy employed a combination of Boolean operators and medical subject headings to identify relevant literature. The terms utilized included “association” OR “relationship” OR “correlation” AND “nurse” OR “registered nurse” OR “nursing staff” OR “nursing personnel” OR “nursing professional” AND “perception” OR “re-port,” AND “attitude” AND “knowledge” AND “practice” AND “prevention” AND “bedsore” OR “pressure injury” OR “pressure

ulcer”. The terms “pressure injury” and “pressure ulcer” are used interchangeably in this review.

Participant or population Registered nurses.

Intervention Pressure injury prevention.

Comparator Not applicable.

Study designs to be included Quantitative, cross-sectional, and correlational studies.

Eligibility criteria Studies published in a peer-reviewed journal, written in English, and released within the last five years, specifically from 2019 to 2025, were included. This systematic review and meta-analysis, which focuses on the pressure injury prevention, appropriately establishes a five-year timeframe to ensure the inclusion of adequate re-search evidence that is both high-quality and current within the last five years. The focus of these studies was registered nurses’ KAP regarding the prevention of pressure injuries. After a systematic search, quantitative studies were

selected for inclusion, which were meta-analyses. Meanwhile, studies not published in English, commentaries, discussion papers, dissertations, narrative reviews, opinion pieces, editorials, secondary analyses of existing data, qualitative studies, and any research that did not address nurses' perceptions of their KAP related to pressure injury prevention were excluded.

Information sources CINAHL, ProQuest, PubMed, ScienceDirect, and Web of Science.

Main outcome(s) Out of the 1986 records that were initially examined, a total of 10 quantitative, cross-sectional, and correlational studies were included in the final systematic review and meta-analysis. In the context of the meta-analysis, 10 studies were included for the association between knowledge and attitudes, whereas only three studies were available for the association between knowledge and practice, and similarly, only three studies addressed the association between attitudes and practice of pressure injury prevention. Collectively, 2457 registered nurses were involved in these studies, mostly worked in intensive care units. The studies were conducted in various countries across Asia and the Middle East, mostly in Turkiye, within the last five years. The registered nurses in the 10 studies reported associations among knowledge, attitudes, and practices toward pressure injury prevention that ranged from insignificant to weak, indirect, and strong direct.

Quality assessment / Risk of bias analysis Ten studies were ultimately incorporated into this systematic and meta-analytic review, following the quality assessment guidelines established by the JBI for full-text studies. Data evaluation involves two or three independent researchers, and a set of articles distinct from those previously analyzed are assigned to each researcher. The selected studies underwent independent and rigorous appraisal by two researchers utilizing the JBI critical appraisal tools. Based on the JBI critical appraisal tool for cross-sectional studies, a total of eight questions were employed to appraise each article, with four possible responses for each question: Y (Yes), N (No), U (Unclear) and NA (Not Applicable). The overall appraisal outcome was either to include or exclude the study from the final systematic review and meta-analysis. An article received an excellent appraisal if it achieves a quality assessment of 75% or higher.

Strategy of data synthesis The statistical analyses were executed using Comprehensive Meta-Analysis software version 4.0. In this meta-

analytic review, the results were assessed with respect to the statistical value of the test of association and p-values. Additionally, cumulative analyses, meta-regression, sensitivity analyses, and subgroup evaluations were effectively used in determining the consistency of the findings, exploring the influence of potential confounding variables on the outcomes of the study, and identifying the most important predictors. Consequently, this methodology was instrumental in investigating nurses' perceptions regarding their KAP related to the prevention of pressure injury.

Subgroup analysis Not applicable.

Sensitivity analysis Not applicable.

Language restriction English.

Country(ies) involved Saudi Arabia.

Keywords attitude, knowledge, meta-analysis, nurse; practice, pressure injury, prevention, systematic review.

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