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Reducing Clinical Nurses' Burnout through Nurse Managers' Leadership Style: A Systematic Review and Meta-analysis

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ADMINISTRATIVE INFORMATION

Support - Personal.

Review Stage at time of this submission - Completed but not published.

Conflicts of interest - None declared.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 4 December 2025 and was last updated on 4 December 2025.

INTRODUCTION

Review question / Objective The purpose of this systematic review and meta-analysis was to examine the current literature on related studies published between 2020 and 2025, and to assess the influence of nurse managers' leadership styles on clinical nurses' burnout.

Rationale Leadership styles exhibited by nurse leaders play an essential role in alleviating burn-out among staff nurses; however, a comprehensive meta-analysis on this research subject is currently lacking.

Condition being studied The review focused on the reported relationship between nurse managers' leadership styles and perceived burnout experienced by staff nurses.

METHODS

Search strategy The search was conducted using the following keywords and MeSH search terms: "relationship" OR "association" OR "influence" OR "correlation" AND "leadership" OR "leadership style" AND "nurse manager" OR "nurse" AND "burnout". In a specific example within PubMed, the following search parameters are provided to ensure the credibility and transparency of the search process. (((("relationship"[All Fields] OR "association"[All Fields] OR "influence"[All Fields] OR "correlation"[All Fields]) AND "leadership"[All Fields]) OR "leadership style"[All Fields]) AND "nurse manager"[All Fields]) OR "nurse"[All Fields]) AND "burnout"[All Fields]) AND (y_5[Filter]), where '(y_5[Filter])' indicates that a five-year filter was applied in the search, yielding 1,835 records that displayed their titles and abstracts.

Participant or population Registered nurses.

Intervention None.

Comparator None.

Study designs to be included This review employed a systematic review and meta-analysis design.

Eligibility criteria The inclusion criteria were delineated as follows: (1) studies conducted within any hospital setting, (2) studies examining the relationship between nurse managers' leadership style and staff nurses' burnout, (3) studies where the leadership styles of nurse managers were derived from the perceptions of staff nurses, and (4) studies published within the last five years, specifically from 2020 to 2025. The final search was executed on the last day of the third quarter of the year, particularly on September 30, 2025.

The exclusion criteria were specified as follows: (1) studies not published in the English language; (2) studies conducted outside of hospital settings, including conference abstracts, oral presentations, qualitative research, review papers or non-original research; (3) studies with lacking clear description of the leadership style under investigation; (4) studies with ambiguous objectives, methodologies, data collection methods, or incomplete data; (5) studies that involved healthcare professionals from which data pertaining to nurses could not be extracted, and (6) studies not published in peer-reviewed journals or not indexed in any of the following databases: EBSCO, Web of Science, Scopus, and PubMed.

Information sources A total of six databases were searched: PubMed, Web of Science, CINAHL Plus, Scopus, Science Direct, and EBSCO through the Saudi Digital Library (SDL). Additionally, a free text search was conducted to guarantee that the systematic review was thorough and rigorous.

Main outcome(s) Out of the total 15 studies, it was indicated that nurse burnout is a global issue, with nurse leadership being a crucial factor in mitigating this problem. The primary positive leadership styles that influenced this situation are authentic leadership, effective head nurse leadership, empowering leadership, ethical leadership, inclusive leadership, paradoxical leadership, servant leadership, and transformational leadership (overall effect size = -0.19; CI = -0.37, -0.00; $p = 0.045$). On the other hand, the negative leadership styles that influenced this problem are authoritarian

leadership and destructive leadership (overall effect size = 0.29; CI = 0.02, 0.57; $p = 0.034$).

Additional outcome(s) This review also indicated that various factors, both directly and indirectly, significantly contributed to the reduction in burnout faced by clinical nurses. These factors encompass: formal support systems, organizational climate and psychological capital, job demands and job resources, workaholism and psychological hardiness, organizational cynicism, professional identity and workplace social capital, and bullying at workplace. Additional factors comprise a favorable work environment, managerial ability and support, and sufficient staffing and re-sources, along with psychological safety and trust in the nurse leader, overqualification, job satisfaction and individual performance, and positive spiritual environment.

Data management The results of the search from each database were imported into Covidence software. The two researchers independently reviewed the titles and abstracts of each study. Furthermore, both researchers also assessed the full text of the studies according to the eligibility criteria. Any conflicts were resolved by a third reviewer, who served as assistant researcher. Ultimately, 15 studies that fulfilled the inclusion criteria based on methodological quality assessment for systematic review and meta-analysis were included in the final review.

Quality assessment / Risk of bias analysis In total, 15 studies were appraised following the Joanna Briggs Institute (JBI) guidelines for evaluating the quality of full-text research pertaining to quantitative, cross-sectional studies. Each of the included studies underwent independent critical appraisal by two researchers, and none of the 15 studies were excluded based on the quality appraisal scores. The appraisal score for each of the included studies was calculated based on the critical appraisal tool of the JBI with the following highest score of 8 out of 8 for quantitative, cross-sectional studies.

Strategy of data synthesis The results from these studies were synthesized narratively, considering the inferential statistical results based on the reported correlation between the leadership styles of nurse managers and the burnout experienced by clinical nurses.

Subgroup analysis None.

Sensitivity analysis None.

Language restriction English.

Country(ies) involved Saudi Arabia and Malaysia.

Keywords burnout; nurse; leadership; meta-analysis; nurse manager; systematic review.

Dissemination plans Under review in the journal of Nursing Reports.

Contributions of each author

Author 1 - Salihah Aljohani - Authors 1 and 2 equally contributed to the review's conceptualization, methodology, software, validation, formal analysis, investigation, resources, data curation, writing—original draft preparation, and writing—review and editing.

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