

Section and Topic	Item #	Checklist item	Location where item is reported
TITLE			
Title	1	Systematic review and meta-analysis; Title clearly identifies review.	1
ABSTRACT			
Abstract	2	Structured abstract provided: Background, Methods, Results, Conclusion.	1
INTRODUCTION			
Rationale	3	Rationale: knowledge gap in Sub-Saharan Africa, moral distress impact on nurses.	1-2
Objectives	4	Objective: To synthesise and quantify prevalence and mean score of moral distress among SSA nurses.	2
METHODS			
Eligibility criteria	5	Eligibility: Licensed nurses in SSA; observational quantitative data; 2005–2025; exclusions: qualitative-only, non-nurses, outside SSA.	2
Information sources	6	Sources: PubMed, AJOL, Google Scholar, reference lists; last searched May 2025.	2; Supplementary File 3
Search strategy	7	Search strategy: PECO-S framework, keywords/MESH, Boolean operators; Supplementary S3.	2; Supplementary File 3
Selection process	8	Selection: Rayyan software; 2+ reviewers independently screened titles/abstracts/full text.	2
Data collection process	9	Data collection: Pre-designed Excel; ≥2 reviewers independently extracted; consensus.	3
Data items	10a	List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (e.g. for all measures, time points, analyses), and if not, the methods used to decide which results to collect.	2-3
	10b	List and define all other variables for which data were sought (e.g. participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information.	3
Study risk of bias assessment	11	Risk of bias: JBI Critical Appraisal checklists; 2 reviewers; consensus.	2-3; Supplementary File 4
Effect measures	12	Effect measure: Pooled mean score (standardised 1–10), prevalence, 95% CI.	3
Synthesis methods	13a	Describe the processes used to decide which studies were eligible for each synthesis (e.g. tabulating the study intervention characteristics and comparing against the planned groups for each synthesis (item #5)).	2-3
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	3
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	3
	13d	Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used.	3
	13e	Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression).	3
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesized results.	3
Reporting bias	14	Publication bias: Funnel plots, Egger's test, trim-and-fill.	3

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assessment			
Certainty assessment	15	Certainty: JBI appraisal (low/moderate risk); no GRADE used.	Not assessed*
RESULTS			
Study selection	16a	Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram.	3 (Figure 1)
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	3 (Figure 1; counts by reason)
Study characteristics	17	Study characteristics: Table 1 with design, country, sample, JBI score.	3-4 (Table 1)
Risk of bias in studies	18	Risk of bias: JBI checklist scores 4–5, mostly low risk.	4 (Table 1); Supplementary File 4
Results of individual studies	19	Results: Individual study results in Table 1 and forest plots.	4-5 (Table 1, Figure 2)
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.	3-4 (Table 1)
	20b	Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g. confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect.	4-5 (Figure 2)
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	4-5 (Table 2)
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.	4
Reporting biases	21	Reporting bias: Funnel plot, Egger's test, trim-and-fill (minimal bias).	5-6 (Figure 3, Table 3)
Certainty of evidence	22	Certainty: Based on JBI appraisals; no GRADE.	Not assessed*
DISCUSSION			
Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	6-7
	23b	Discuss any limitations of the evidence included in the review.	7
	23c	Discuss any limitations of the review processes used.	7
	23d	Discuss implications of the results for practice, policy, and future research.	7
OTHER INFORMATION			
Registration and protocol	24a	Provide registration information for the review, including register name and registration number, or state that the review was not registered.	2
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	2; Supplementary File 2
	24c	Describe and explain any amendments to information provided at registration or in the protocol.	NA
Support	25	Support: No funding.	8

PRISMA 2020 Checklist

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Competing interests	26	Competing interests: None declared.	8
Availability of data, code and other materials	27	Data availability: On request from first author.	8