

Pregnancy pillow interventions to support the pelvis, lower back, gravid uterus and a left lateral recumbent maternal sleeping position: A rapid systematic review protocol

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Abstract

Objective:

The objective of this rapid review is to provide a systematic overview of the literature on the use of pregnancy pillow interventions during pregnancy to support the pelvis, lower back, gravid uterus and left lateral recumbent maternal sleeping position.

Introduction:

Symptoms and complications experienced during pregnancy are often individualised. They can vary over time and in intensity during the antenatal period. The prevalence rates of physiological pregnancy symptoms or complications highlights the need for interventions that ideally address multiple issues. It is unclear whether pregnancy pillow interventions offer support for pregnancy-related pelvic girdle pain; pregnancy-related lower back pain; abdominal ligament/muscle weakness; and/or facilitate a left lateral recumbent maternal sleeping position.

Inclusion criteria:

This review will consider cross-sectional, longitudinal, prospective or retrospective studies; reviews of any type; and syntheses featured in peer reviewed journals or developed by highly regarded organisations. Outcomes will include supporting the pelvis; supporting the lower back; supporting the gravid uterus; and/or supporting a left lateral recumbent maternal sleeping position.

Methods:

The review aims to find published research studies, reviews of any type and syntheses (practice or evidence-based recommendations or practitioner guidelines). The key information sources to be searched are the Cochrane Central Register of Controlled Trials (CENTRAL); EBSCO; and EMBASE (Ovid). Two reviewers will screen the titles and abstracts for inclusion. The full text of publications meeting the inclusion criteria will then be examined for eligibility. Meta-data will be extracted using a standard template.

Eligible publications will be critically appraised using the relevant JBI Critical Appraisal Tool as appropriate to the publication type. Reviewer two will evaluate the assessment made by reviewer one in line with rapid review practice. The results will be synthesised as a narrative synthesis of the publications.

Keywords: Rapid Systematic Review; Pregnancy Pillow Interventions; Pelvis; Lower Back; Gravid Uterus; Maternal Going-To-Sleep Position; Left Lateral Recumbent Sleep.

PRISMA-P (Preferred Reporting Items for Systematic review and Meta-Analysis Protocols)

ADMINISTRATIVE INFORMATION

Title:

Identification	1a	Pregnancy pillow interventions to support the pelvis, lower back, gravid uterus and a left lateral recumbent maternal sleeping position: A rapid systematic review protocol.
Update	1b	New protocol for a rapid systematic review on this topic.
Registration	2	Protocol registered with protocols.io in August 2023.

Authors:

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Contributions	3b	DW participated in the planning, review, original manuscript and approval of the final version; GW-J participated in the planning, review, and approval of the final version. DW is the guarantor of the review.
Amendments	4	Important protocol amendments post-registration will be recorded and included in dissemination.

Support:

Sources	5a	Financial support has been secured for the review.
Sponsor	5b	Business Bridge programme (32R18P02530, Medical Research and Development Centre Phase Two).
Role of sponsor or funder	5c	The funder and business beneficiary approved the review topic and scope.

INTRODUCTION

Rationale	6	No reviews or evidence syntheses have been identified that focus on reviewing evidence on the use of or the effectiveness of pregnancy pillow interventions. No current reviews summarise the evidence on interventions for combined support for the pelvis, lower back, gravid uterus and a left lateral recumbent maternal sleeping position.
Objectives	7	▪ Answer the review question: <i>How do pregnancy pillow interventions compare with no support for the pelvis, lower back,</i>

gravid uterus and a left lateral recumbent maternal sleeping position during pregnancy?

- Synthesise the evidence as a narrative synthesis with meta-analyses if sufficient homogeneity.

METHODS

Eligibility criteria	8	<p>The review will consider cross-sectional, longitudinal, prospective or retrospective studies; reviews of any type; and syntheses featured in peer reviewed journals or developed by highly regarded organisations. Only English language publications will be included.</p> <p><i>Population:</i> People who are pregnant <i>Intervention:</i> Pregnancy pillow <i>Comparison:</i> No support pillow <i>Outcomes:</i> Supporting the pelvis; Supporting the lower back; Supporting the gravid uterus; and/or Supporting a left lateral recumbent maternal sleeping position <i>Timeframe:</i> During the nine months of pregnancy</p>
Information sources	9	<p>The search will employ topic-based strategies designed for each database from inception to August 2023:</p> <ul style="list-style-type: none">▪ Cochrane Central Register of Controlled Trials (CENTRAL)▪ EBSCO [AMED, MEDLINE, APA PsycInfo, CINAHL Plus with Full Text, APA Psyc Articles]▪ EMBASE <p>Hand searches will supplement the database searching. There will be no geographical restrictions.</p>
Search strategy	10	<p>The search strategy will include terms and keywords derived from a scoping search: pregnancy (or related terms) AND pillow (or related terms) AND pelvis (or related terms) OR lower back (or related terms) OR gravid uterus (or related terms) OR left lateral recumbent (or related terms).</p> <p>Draft EBSCO search: (Filters: English language. Expanders: Apply equivalent subjects)</p> <p>((AB (pregnan* OR matern* OR expectant mother* OR expectant wom*)) AND (TX (pillow* OR "sleep* aid" OR "sleep* support"))) AND (AB (pelvi* OR girdle OR lumbopelvi* OR symphysis pubi*)) OR ((AB (pregnan* OR matern* OR expectant mother* OR expectant wom*)) AND (TX (pillow* OR "sleep* aid" OR "sleep* support"))) AND (AB (low* back* OR lumbopelvi* OR lumb* OR spin* OR sciatic* OR musculoskeletal))) OR ((AB (pregnan* OR matern* OR expectant mother* OR expectant wom*)) AND (TX (pillow* OR "sleep* aid" OR "sleep* support"))) AND (AB ("gravid uterus" OR abdominal OR ligament))) OR ((AB ((pregnan* OR matern* OR expectant mother* OR expectant wom*)) AND (TX ((pillow* OR "sleep* aid" OR "sleep* support")))) AND (AB ((matern* sleep* OR "left-side sleep*" OR "left lateral recumbent")))) NOT (AB ("infan* death" OR "cot death" OR SIDS)))</p>
Study records:		

Data management	11a	Records will be managed using Excel and Mendeley.
Selection process	11b	Two reviewers will screen the titles and abstracts for inclusion. The full text of publications meeting the inclusion criteria will then be examined for eligibility. Reviewer two will evaluate the assessment made by reviewer one.
Data collection process	11c	Meta-data will be extracted using a standard template. Reviewer two will confirm the extraction by reviewer one.
Data items	12	Data extracted will include the following meta-data: author(s); year; title; outcome(s) featured; population and sample detail; study design; research method(s); results/findings; and limitations.
Outcomes and prioritization	13	List and define all outcomes for which data will be sought, including prioritization of main and additional outcomes, with rationale.
Risk of bias in individual studies	14	Risk of bias for each included publication will be assessed by reviewer one. The eligible publications will be critically appraised using the relevant JBI Critical Appraisal Tool as appropriate to the publication type. Reviewer two will evaluate the assessment made by reviewer one. The assessment will be incorporated into the narrative synthesis.
Data synthesis	15a	Study data will be not quantitatively synthesised as a meta-analysis as the review is a rapid review.
	15b	Details of summary measures and data management methods not applicable for a rapid review.
	15c	No additional analyses are proposed.
	15d	For a rapid review, a narrative synthesis is planned.
Meta-bias(es)	16	Meta-biases will be appraised during critical review process (JBI Critical Appraisal Tool as appropriate to the publication type).
Confidence in cumulative evidence	17	The strength of the overall body of evidence will be assessed using the information recorded during the critical review process.

Derived from: Shamseer, L., Moher, D., Clarke, M., Ghersi, D., Liberati, A., Petticrew, M., Shekelle, P., & Stewart, L. A. (2015). Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015: Elaboration and explanation. *BMJ*, 349(jan02 1), g7647–g7647. <https://doi.org/10.1136/bmj.g7647>