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NIHR | National Institute for Health and Care Research

PROSPERO
International prospective register of systematic reviews

The Impact of Physical Activity on Quality of Life for individuals Living Endometriosis. A Systematic Review

Kate Day, Sharon Manship, Caroline Flurrey

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REVIEW TITLE AND BASIC DETAILS

Review title
The Impact of Physical Activity on Quality of Life for individuals Living Endometriosis. A Systematic Review

Condition or domain being studied
Endometriosis; Quality of Life; Health-Related Quality of Life; Non-Pharmacological Interventions; Physical activity; Non-Surgical Interventions; Physical Activity Level; Physical Exercises

Endometriosis is a chronic whole-body condition caused by tissue similar to endometrium cells that line the womb and can cause multiple psychological and physical disruptive symptoms such as brain fog, chronic pain and fatigue.

Rationale for the review
Endometriosis is a long-term health condition where tissue similar to the womb lining grows elsewhere in the body. This can cause physical and mental symptoms such as chronic pain, fatigue, and brain fog that can be severe and unpredictable, often disrupting everyday life activities and significantly impact quality of life.

Although NHS recommends regular physical activity (PA) for good health, people with endometriosis may find it difficult to stay active due to symptom flare-ups. Over time, this may lead to reduced wellbeing and increase health risks. Endometriosis is a condition that falls under women's health, an area of research that has historically been neglected. There is limited research on endometriosis affects physical activity engagement and it's impact generally and synthesised. Efforts to close knowledge gaps predominately focused on pharmacological and surgical interventions. However, it is still considered a lifelong and incurable condition, therefore, there is value in understanding lifestyle implications on endometriosis and overall wellbeing throughout their life course. Research needs to close gaps regarding holistic, person centered approaches to managing quality of life and wellbeing living with endometriosis co-currently with supporting protective health behaviors for health longevity.

Findings will improve understanding of how and what physical activity interventions impact the quality of life for those living with endometriosis, imperative to informing future intervention designs that are effective and appropriately adapted for those with endometriosis beyond pharmacological approaches.

Review objectives
How effective are physical activity interventions for improving quality of life for those living with endometriosis?

What physical activity interventions are most effective for improving quality of life within endometriosis populations?

What key interventions components differences between intervention types, intensity, and length differ across quality of life outcomes within endometriosis populations?

Keywords
Endometriosis; Quality of life; Physical health; Mental health; Physical activity; Physical exercise; Intervention; Movement behaviour interventions; Behaviour Intervention

Country
United Kingdom

ELIGIBILITY CRITERIA

Population

Included
Adults clinically diagnosed with endometriosis, assigned female at birth (18 years old and over)

Excluded
A healthy population, not clinically diagnosed with endometriosis, under 18 years old

Intervention(s) or exposure(s)

Included
Physical And Psychosocial Approaches; Physical Exercises; Psychoeducation; Physical activity; Exercise; Non-Pharmacological Interventions; Behavior modification

A repeated measures intervention with minimum 4 weeks of intervention application.

Interventions that have a physical activity component.

Excluded
interventions that utilise pharmacology or surgical interventions during the intervention period.

Interventions that don't have a physical activity component.

Comparator(s) or control(s)

Included
PICO tags selected: Waiting list control; Usual Care; Placebo

Study design
Both randomized and nonrandomized study types will be included.

Context
Endometriosis is a chronic, lifelong condition that is considered untreatable however NHS management pathways promote laparoscopic surgeries and pain medication. However, these are quite invasive and disruptive management approach and there is limited literature on managing endometriosis symptoms via psychosocial and non-pharmacological interventions that are more person centered, and lifestyle prioritised. Furthermore, the chronic pain, fatigue and brain fog symptoms disrupt physical activity engagement with further disruptions due to surgery and medical interventions. Physical activity is an important protective health behaviour against morbidities therefore this paper aims to understand how physical activity can be used to support quality of life for those with endometriosis as an essential starting point for future research development. Therefore, interventions conducted in non-clinical settings that are lifestyle interventions will be included. Furthermore, there might be different stages of endometriosis classified within the participants, so long as participants are medically diagnosed by MRI or surgery all stages of endometriosis will be included due to heterogeneity of symptom severity not necessarily aligning with stage.

TIMELINE OF THE REVIEW

Date of first submission to PROSPERO
16 October 2025

Review timeline
Start date: 1 June 2025. End date: 31 December 2025.

Date of registration in PROSPERO
16 October 2025

AVAILABILITY OF FULL PROTOCOL

Availability of full protocol
A full protocol has been written and uploaded to PROSPERO. The protocol may be accessed through this link https://www.crd.york.ac.uk/PROSPEROFILES/42a1684879c07f28f286e26865aabdf5.pdf.

SEARCHING AND SCREENING

Search for unpublished studies
Only published studies will be sought.

Main bibliographic databases that will be searched
The main databases to be searched are *ASSIA - Applied Social Sciences Index & Abstracts, CLIB - The Cochrane Library, Embase - Embase via Ovid, Embase.com, MEDLINE, PsycInfo, PubMed, SSCI - Social Science Citation Index* and *Scopus*.

Other important or specialist databases that will be searched
The use of searching software 'Research Rabbit AI' will help identify any additional relevant peer reviewed published papers missing from the list above.

Search language restrictions
The review will only include studies published in English.

Search date restrictions
Databases will be searched for articles published from 1 January 2020, there are no search end date restrictions.

Other methods of identifying studies
Other studies will be identified by: looking through all the articles that cite the papers included in the review ("snowballing" or forward citation searching), looking through all the articles that cite the papers included in the review ("snowballing"), reference list checking and reference list checking (backward citation searching).

Additional information about identifying studies
'Research Rabbit AI'

Link to search strategy
A full search strategy is available in the full protocol as described in the *Availability of full protocol* section

Selection process
Studies will be screened independently by at least two people (or person/machine combination) with a process to resolve differences.

Other relevant information about searching and screening
None

DATA COLLECTION PROCESS

Data extraction from published articles and reports
Data will be extracted independently by at least two people (or person/machine combination) with a process to resolve differences.

Authors will not be contacted for further information.

Study risk of bias or quality assessment
Risk of bias will be assessed using: *ROBINS-I*

The Effective Public Health Practice Project (EPHPP) will be used to assess the quantitative element of studies quality.

Data will be assessed by one person (or a machine) and checked by at least one other person (or machine).

Additional information will **not** be sought from study investigators if required information is unclear or unavailable in the study publications/reports.

Reporting bias assessment
Utilising the Risk of Bias for Missing Evidence Tool (ROB-ME) will support synthesis.

Certainty assessment
Certainty of findings will not be assessed

OUTCOMES TO BE ANALYSED

Main outcomes
Main outcomes will report quality of life score changes and significance from base line following a physical activity intervention of at least 4 weeks within an endometriosis population. Main measures will be quality of life validated scales in addition to extending to menstrual measures that capture questionnaire point extending such as the MEDI-Q and EHP-30. Data for this outcome will be synthesised using standardised mean difference and reported P value's significance.

Additional outcomes
There are no additional outcomes.

PLANNED DATA SYNTHESIS

Strategy for data synthesis
Due to the anticipated heterogeneity of the studies a Meta analysis is not proposed, a Narrative synthesis (Rai et al., 2020) will be undertaken. This method is inclusive, allows integration of qualitative and quantitative data from a wide variety of sources and can be more descriptive and interpretive than other review types, for example: to explore relationships in the data and between groups of studies pertaining to the research questions. The synthesis approach will be finalised based on suitability of the included studies and potential changes such as an interpretive thematic synthesis will be reported in the published study.

CURRENT REVIEW STAGE

Stage of the review at this submission

Review stage	Started	Completed
Pilot work	✓	✓
Formal searching/study identification	✓	
Screening search results against inclusion criteria	✓	
Data extraction or receipt of IPD		
Risk of bias/quality assessment		
Data synthesis		

Review status
The review is currently planned or ongoing.

Publication of review results
Results of the review will be published in English.

REVIEW AFFILIATION, FUNDING AND PEER REVIEW

Review team members
Miss Kate Day (review guarantor and contact) ORCID: 0009-0003-3284-446X. University of Kent. England.

No conflict of interest declared.

Ms Sharon Manship. University of Kent. England.

No conflict of interest declared.

Dr Caroline Flurrey. University of West England. England.

No conflict of interest declared.

Named contact
Miss Kate Day (k.day-398@kent.ac.uk). ORCID: 0009-0003-3284-446X. University of Kent. England.

Review affiliation
University of Kent employees within the Centre of Health Services Studies in collaboration with the University of West England.

Funding source
Review has no specific/external funding but is supported by guarantor/review team (non-commercial) institutions.

Peer review
There has been no peer review of this planned review.

ADDITIONAL INFORMATION

Additional information
Any changes from the protocol will be reported in the published paper.

Review conflict of interest
Declared individual interests are recorded under team member details.. No additional interests are recorded for this review.

Medical Subject Headings
Chronic Disease; Chronic Pain; Endometriosis; Exercise; Endometrium; Fatigue; Female; Humans; Mental Fatigue; Psychosocial Intervention; Quality of Life; Uterus

SIMILAR REVIEWS

Check for similar records already in PROSPERO
PROSPERO identified a number of existing PROSPERO records that were similar to this one (last check made on 25 August 2025). These are shown below along with the reasons given by that the review team for the reviews being different and/or proceeding.

- Effectiveness of psychosocial interventions in endometriosis: A systematic review [published 13 February 2025] [CRD42025502067]. The review was acknowledged as **similar** but the authors opted to continue because *there are differences in population, there are differences in intervention or comparator.* The authors also noted: *"Our review will only focus on physical behaviour interventions in relation to quality of life opposed to psychosocial interventions. Ours will provide more specific outcomes regarding managing physical activity and wellbeing with endometriosis."*
- The effectiveness of psychological and psychosocial interventions for the pain interference in women with endometriosis: A systematic review [published 5 May 2025] [CRD42025134112]. The review was judged **not to be similar**
- The effectiveness of multi-component interventions on sleep quality for individuals with fibromyalgia: a systematic review [published 14 June 2022] [CRD42022290247]. The review was judged **not to be similar**

PROSPERO version history

- Version 1.0, published 16 Oct 2025

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Any enquiries about the record should be referred to the named review contact