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Feasibility and acceptability of exercise interventions for adults with tendinopathy: a mixed methods review.

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Review question [2 changes]

This review aims to explore the feasibility and acceptability of any exercise intervention for the treatment of any tendinopathy. The specific review questions are:

1: What is the current knowledge about the feasibility of delivering exercise interventions for tendinopathy from the perspective of those delivering and receiving interventions?

Specifically:

a) How feasible is the delivery of exercise therapy for tendinopathy in terms of rates (e.g., of adherence, attendance, fidelity)?

and

b) What are patients' and healthcare professionals' perceptions of the feasibility of exercise therapy for tendinopathy?

2: What is the current knowledge about acceptability of receiving exercise therapy for tendinopathy from the perspective of people with tendinopathy?

Specifically:

a) How acceptable is exercise therapy in terms of tolerability

and

b) What are patients' and healthcare professionals' perceptions of the acceptability of exercise therapy for tendinopathy

Searches

The search will initially be conducted for a scoping review of exercise interventions for tendinopathies, and will be updated on commencement of this mixed-methods review. A 3-step search strategy will be employed for the scoping review as follows:

i) Search of MEDLINE and CINAHL using initial keywords (mh tendinopathy OR tx tendin* or tx tendon*)

AND (mh exercise OR tx exercis* followed by analysis of text words in title/abstract and those used to describe articles in order to create full search strategy;

ii) Full search strategy will be adopted for each database and applied systematically to: MEDLINE, CINAHL,

AMED, EMBase, SPORTDiscus, Cochrane Library, JBI Evidence Synthesis, PEDRo, Epistemionikos. The following trial registries will be searched: Clinical trials.gov, ISRCTN, The Research Registry, EU-CTR,

ANZCTR. We will also search for unpublished studies via OpenGrey, MedNar, The New York Academy Grey Literature Report, Ethos, CORE and Google Scholar;

iii) For each article located in steps 1 & 2 we will conduct a search of cited and citing articles using Scopus and hand-searching where necessary.

We will not place a language limit on searching; rather, we will include any literature where a translation is accessible. Searching will start from 1998.

Types of study to be included

Any quantitative, qualitative or mixed methods design that potentially contains data relevant to the review question will be considered for inclusion in the review. It is anticipated that relevant designs will include pilot and/or feasibility studies, cross-sectional studies, and qualitative studies (stand-alone, part of mixed methods studies or embedded in trials). Trials and quasi-experimental studies that include a process evaluation may also be eligible for inclusion.

Condition or domain being studied

Any type or location of tendinopathy defined as tendon degeneration characterized by a combination of pain, swelling and impaired performance.

Participants/population [1 change]

Inclusion:

Adults aged 18+

Any gender

Tendinopathy of any severity or duration at any anatomical location

Exclusion:

Plantar heel pain

Large, full-thickness or massive tears, or where tear size is undetermined

Intervention(s), exposure(s) [1 change]

The phenomenon of interest is the feasibility of delivering and acceptability of participating in exercise therapy for any tendinopathy. Feasibility refers to whether the exercise intervention "can" be delivered and will therefore include, but not be limited to, information such as attendance, intervention fidelity and adherence. The review will not include trial-related feasibility outcomes such as recruitment and retention rates, or completion and return of outcome measures, as the focus of the review is on the feasibility of delivering exercise and not the feasibility of trial processes.

Acceptability refers to the acceptability to patients/carers of receiving exercise therapy for tendinopathy. As such, it will include, but not be limited to, information such as perceptions, experiences, enjoyment, barriers and facilitators to exercise therapies. The review will not include acceptability of trial-related processes such as randomisation and outcome measurement, as the focus of the review is on the acceptability of exercise interventions and not trial processes.

The exercise therapy may be a first or second-line intervention and may be delivered in isolation or with other adjunct interventions.

Comparator(s)/control

Not relevant in this mixed-methods review.

Context [1 change]

Primary or secondary care, or community locations in any developed nation (top 62 countries in human development index)

Main outcome(s) [1 change]

Any measure or reporting of feasibility or acceptability, including but not limited to compliance, adherence, attendance, exercise fidelity, tolerability.

Measures of effect

Not applicable.

Additional outcome(s)

None.

Measures of effect

Not applicable.

Data extraction (selection and coding) [1 change]

JBI methodology for convergent segregated mixed-methods reviews will be adhered to.

For the quantitative component, data will be extracted from quantitative and mixed methods (quantitative component only) studies included in the review will be extracted onto an Excel spreadsheet designed for the review. Data extraction will be piloted by the review team on a sample of studies and the spreadsheet amended as required. Data extraction will be completed by one review and checked by a second. The data extracted will include specific details about the populations, study methods, interventions, and outcomes of significance to the review objective.

For the qualitative component, data will be extracted from qualitative and mixed methods (qualitative component only) studies included in the review by two independent reviewers using the standardized JBI data extraction tool in JBI SUMARI. The data extracted will include specific details about the population, context, culture, geographical location, study methods and the phenomena of interest relevant to the review objective. Findings, and their illustrations will be extracted and assigned a level of credibility.

Any disagreements that arise between the reviewers will be resolved through discussion, or with a third reviewer.

Risk of bias (quality) assessment [1 change]

Studies will be assessed for methodological quality by 2 independent reviewers using standardized critical appraisal tools in JBI:SUMARI software.

Conflicts will be resolved by discussion or by a 3rd reviewer.

No studies will be excluded on the basis of methodological quality.

Strategy for data synthesis [1 change]

This review will follow a convergent segregated approach to synthesis and integration according to the JBI methodology for mixed methods systematic reviews (<https://jbi-global-wiki.refined.site/space/MANUAL/3283910764/Chapter+8%3A+Mixed+methods+systematic+reviews>)

This will involve separate quantitative and qualitative synthesis followed by integration of the resultant

quantitative evidence and qualitative evidence.

Quantitative synthesis

Data will, where possible, be pooled with statistical meta-analysis. Univariate models (e.g. adherence, fidelity, tolerance) will be conducted with proportion data analysed using logit transformation and random effects models used where multiple values are presented from a single study. Where sufficient data is available, sub-analyses or meta-regressions will be used to explore relationships between effect sizes and potential moderator variables including tendinopathy type, exercise type, and assessment duration.

Qualitative synthesis

Qualitative research findings will, where possible be pooled using JBI SUMARI with the meta-aggregation approach. . This will involve the aggregation or synthesis of findings to generate a set of statements that represent that aggregation, through assembling the findings and categorizing these findings based on similarity in meaning. These categories are then subjected to a synthesis to produce a comprehensive set of synthesized findings that can be used as a basis for evidence-based practice. Where textual pooling is not possible the findings will be presented in narrative form.

Integration of quantitative evidence and qualitative evidence

The findings of each single method synthesis included in this review will then be configured according to the JBI methodology for mixed methods systematic reviews. This will involve quantitative evidence and qualitative evidence being juxtaposed and organized/linked into a line of argument to produce an overall configured analysis. Where configuration is not possible the findings will be presented in narrative form.

Analysis of subgroups or subsets [1 change]

For the quantitative analysis we will analyse by body segment (e.g., upper/lower limb), tendinopathy type (e.g., Achilles, lateral elbow), and exercise type (e.g., eccentric, heavy slow resistance), where there is sufficient data.

Contact details for further information

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Organisational affiliation of the review [1 change]

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Type and method of review [1 change]

Meta-analysis, Systematic review, Other

Anticipated or actual start date [1 change]

01 January 2021

Anticipated completion date [1 change]

31 December 2021

Funding sources/sponsors [1 change]

NIHR HTA (project no 129388)

Grant number(s)

State the funder, grant or award number and the date of award

NIHR 129388 awarded March 2020

Conflicts of interest

Language

English

Country

Scotland

Stage of review

Review Ongoing

Subject index terms status

Subject indexing assigned by CRD

Subject index terms

Exercise Therapy; Feasibility Studies; Health Services; Humans; Musculoskeletal Diseases; Tendinopathy

Date of registration in PROSPERO

07 February 2020

Date of first submission

07 February 2020

Details of any existing review of the same topic by the same authors

Stage of review at time of this submission [2 changes]

Stage	Started	Completed
Preliminary searches	Yes	Yes
Piloting of the study selection process	Yes	Yes
Formal screening of search results against eligibility criteria	Yes	Yes
Data extraction	Yes	Yes
Risk of bias (quality) assessment	No	No
Data analysis	No	No

Revision note

Revisions made to the review questions informed by a systematic scoping review of the evidence-base. Questions now clearly split into relevant sub-questions that can be answered with quant/qual data respectively. Due to the above change, the data analysis method has been updated to reflect that a

convergent segregated approach to data analysis will be undertaken, with details of the planned quantitative analyses.

The record owner confirms that the information they have supplied for this submission is accurate and complete and they understand that deliberate provision of inaccurate information or omission of data may be construed as scientific misconduct.

The record owner confirms that they will update the status of the review when it is completed and will add publication details in due course.

Versions

07 February 2020

23 March 2021

19 November 2021