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A systematic review of the measurement properties of physical activity outcome measures

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Review question(s)

The aim of this systematic review is to evaluate the measurement properties of existing self-reported physical activity outcome measures to ascertain whether appropriate tools are available.

Searches

Medline (OVID), CINAHL plus (EBSCO), PEDro, PubMed, and the Birmingham University site that searches using Cochrane Library (Wiley), EMBASE, PsychINFO, Sport Discuss Abstract, and Web of Science (ISI).

Types of study to be included

Validity and reliability studies for separate self-reported physical activity outcome measures.

Condition or domain being studied

Musculoskeletal self-reported outcome measures focussing on physical activity.

Participants/ population

Adult population.

Intervention(s), exposure(s)

Inclusion criteria:

Written in English.

Published between 1st May 2001 - 31st July 2012.

Completed on adult human population (>16 years old).

Reports assessment of >1 measurement property (content, construct or criterion validity, internal consistency, interpretability, responsiveness, reliability, or absolute measurement error).

Reports assessment of >1 self-reported and standardised original or modified outcome that focuses on physical activity.

Exclusion criteria for this study will be for articles that:

Are completed on patients where reduced physical activity is due to neurological conditions (such as stroke, Multiple Sclerosis or Dementia) or due to psychological factors (including depression, anxiety or fear);

Examine outcome measures focusing on pain as the causative factor for modifying activity.

Comparator(s)/ control

Each outcome measure will be compared against each other with relation to the measurement properties found.

Context

Outcome measures used in Musculoskeletal physiotherapy or by healthcare professionals in the assessment of physical activity.

Outcome(s)

Primary outcomes

The data corresponding to each outcome measure will be collated and the strength of the conclusions made regarding the measurement property evaluated. Therefore the reviewer can make comment on the appropriate use of the outcome measure in assessing physical activity.

Secondary outcomes

None

Data extraction, (selection and coding)

The two reviewers will extract the data from the included studies including study design, study aim, gender distribution, and outcome measure investigated. The aim of the outcome measure will also be classified as: “Evaluative” (detection of changes over time), “Discriminative” (detection of differences between patients), “Predictive” (prediction of future health outcomes) and “Planning” (planning of treatment).

Discrepancies in the information extracted from the studies will be mediated by the third reviewer to ensure consistency. Agreement between reviewers will be evaluated by Cohen’s kappa for each individual study.

Risk of bias (quality) assessment

Investigations relating to the same outcome measure will be collated and COSMIN will dictate the inferences that can be made from the data extracted.

Strategy for data synthesis

A narrative synthesis on the appropriate use of the outcome measure in assessing physical activity will be performed by the primary reviewer.

Analysis of subgroups or subsets

None planned

Dissemination plans

I intend to publish the review on completion.

Contact details for further information

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Anticipated or actual start date

11 June 2012

Anticipated completion date

18 February 2013

Funding sources/sponsors

None.

Conflicts of interest

None known

Language

English

Country

Wales

Subject index terms status

Subject indexing assigned by CRD

Subject index terms

Exercise; Humans; Outcome Assessment (Health Care);

Date of registration in PROSPERO

11 June 2012

Date of publication of this revision

27 November 2013

Stage of review at time of this submission

Preliminary searches

Started

Yes

Completed

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

Yes

Yes

Data analysis

Yes

Yes

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