



STRENGTHENING THE EVIDENCE IN EXERCISE SCIENCES

The SEES Initiative

Journal Reports 2019

Scandinavian Journal of Medicine & Science in Sports

Systematic Reviews with Meta-Analyses



www.sees-initiative.org

About SEES Initiative

We are a group of academics, including faculty, post-doctoral fellows, graduate, and undergraduate students, highly compelled to do meta-research in publications featuring interventions of exercise and physical activity applied to several health conditions.

Our primary goal is to promote surveillance of published evidence in exercise sciences, fostering a culture of respectful and critical appraisal for the published evidence in our field. We attempt to do so as transparently and collaboratively as possible.

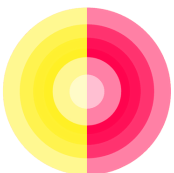
Further, we ultimately aim to increase the awareness regarding the need for transparent and informative scientific reports that should be valued by a complete reporting, carefully designed methods, and well-reasoned claims on the pursued research question.

About this collection

The present journal collection displays assessment reports generated by us as a result of continuous and systematic surveillance of published articles by the featured journal. Such publications reported either randomized clinical trials or systematic reviews with meta-analysis. All of our assessment reports were sent by email to the corresponding authors. Whenever requested by authors, we were prone to proceed required revisions and self-correction (whenever applicable), disseminating the corrected assessment reported.

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Contents



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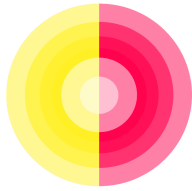
Number of systematic reviews with meta-analyses assessed by the SEES Initiative

05 articles

Information for individual publication reports

Title	Pack*	Links
The Effects of Exercise Interventions on Health and Fitness of Firefighters: A Meta-Analysis	02	SEES link: https://sees-initiative.org/andrews-30779389/
Which exercise prescriptions optimize VO2max during cancer treatment? – A systematic review and meta-analysis	04	SEES link: https://sees-initiative.org/bjorke-31034665/
Effects of plyometric training on jumping, sprint performance, and lower body muscle strength in healthy adults: A systematic review and meta-analyses	05	SEES link: https://sees-initiative.org/pmid31136014/
Cooling during exercise enhances performances, but the cooled body areas matter: A systematic review with meta-analyses	07	SEES link: https://sees-initiative.org/pmid31340407/
The ability of exercise to meaningfully improve glucose tolerance in people living with prediabetes: A meta-analysis	10	SEES link: https://sees-initiative.org/pmid31593613/

*Pack: (place where each month's articles are archived).



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

The Effects of Exercise Interventions on Health and Fitness of Firefighters: A Meta-Analysis

PMID

30779389

Journal

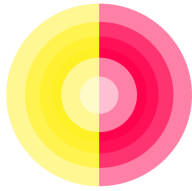
Scand J Med Sci Sports

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 2

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	No
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	Yes
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	No
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	Yes
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	No
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	Yes
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	No
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	Yes
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	The searches were carried out from the database inception (earliest date)
Methodological rigor	Methods: How many languages were considered for study eligibility?	1
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	No
Methodological rigor	Methods: Was the study selection carried out in duplicate?	No
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	No
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	No
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	Does not apply
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	No
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	No
Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	No

Completeness	Results: Is there a description of study duration (follow-up lengths)?	Yes
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	No
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	No
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Does not apply
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	Unclear
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	Yes
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	No
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, BOTH for study and review levels
Transparency	Is there a statement regarding the data availability (data sharing plan)?	No
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	No
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare non-financial COIs



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

Which exercise prescriptions optimize VO2max during cancer treatment? – A systematic review and meta-analysis

PMID

31034665

Journal

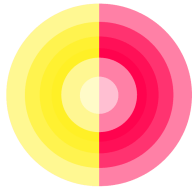
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Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 4

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	No
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	Yes
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	Yes
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	Yes
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	Yes
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	Yes
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	No
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	The searches were carried out from the database inception (earliest date)
Methodological rigor	Methods: How many languages were considered for study eligibility?	not reported
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	Yes
Methodological rigor	Methods: Was the study selection carried out in duplicate?	No
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	Yes
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	Yes
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	No
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	Yes
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes
Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	Yes

Completeness	Results: Is there a description of study duration (follow-up lengths)?	Yes
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	No
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	No
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Yes (FULL description)
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	Unclear
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	No
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	No
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, BOTH for study and review levels
Transparency	Is there a statement regarding the data availability (data sharing plan)?	No
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	No
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	No



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

Effects of plyometric training on jumping, sprint performance, and lower body muscle strength in healthy adults: A systematic review and meta-analyses

PMID

31136014

Journal

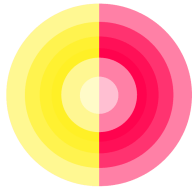
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Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 5

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	No
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	Yes
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	Yes
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	Yes
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	Yes
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	No
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	No
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	The searches were carried out from the database inception (earliest date)
Methodological rigor	Methods: How many languages were considered for study eligibility?	1
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	Yes
Methodological rigor	Methods: Was the study selection carried out in duplicate?	No
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	No
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	No
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	Yes
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes

Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	Yes
Completeness	Results: Is there a description of study duration (follow-up lengths)?	Yes
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	Yes
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	Yes
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	Yes (FULL description)
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	Unclear
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	No
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	Yes
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, BOTH for study and review levels
Transparency	Is there a statement regarding the data availability (data sharing plan)?	No
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	No
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	No



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

Cooling during exercise enhances performances, but the cooled body areas matter: A systematic review with meta-analyses

PMID

31340407

Journal

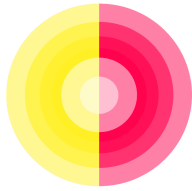
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Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 7

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	No
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	No
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	Yes
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	Yes
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	Yes
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	No
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	Yes
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	No
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	The searches were carried out from the database inception (earliest date)
Methodological rigor	Methods: How many languages were considered for study eligibility?	2
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	No
Methodological rigor	Methods: Was the study selection carried out in duplicate?	No
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	No
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	Yes
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	No
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	Yes
Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes
Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	No

Completeness	Results: Is there a description of study duration (follow-up lengths)?	Does not apply
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	No
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	No
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	No
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	Unclear
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	No
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	Yes
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, ONLY for the study and/or outcome level (review processes not mentioned)
Transparency	Is there a statement regarding the data availability (data sharing plan)?	No
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	No
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	No



Strengthening the Evidence in Exercise Sciences Initiative (SEES Initiative)

Assessment Report for Individual Study

Study title

The ability of exercise to meaningfully improve glucose tolerance in people living with prediabetes: A meta-analysis.

PMID

31593613

Journal

Scand J Med Sci Sports

Type of Publication and Period of assessment

Systematic Review with Meta-Analysis, SEES Pack 10

Note: The COVID-19 pandemics we are going through is very challenging and totally unprecedented. However, through it we can see that science conducted in an open, transparent and reproducible way is more than an ideal, it is a necessity. In this sense, we decided to keep our activities. However, we emphasize this evaluation was possibly not reviewed/questioned by the article authors due to the moment we are all going through. Thank you for your time and consideration.
SEES Initiative team.

Component	Item	SEES assessment
Transparency	Registration: Is the review registered in a public database?	No
Transparency	Protocol: Is there referral of a publicly available methodological protocol? (Note: if so, you must also use the protocol to consult information about the review)	No
Completeness	Title: Is the study identified as a systematic review, meta-analysis, or both?	Yes
Completeness	Abstract: Does the abstract list the data sources used in the review? (Note: if more than five databases were used, simplified or partial referral should be considered as "Yes")	Yes
Completeness	Abstract: Does the abstract inform key eligibility criteria for study selection?	No
Participants	Abstract: Is there a description regarding the population (participants) or main condition(s) addressed in the review?	Yes
Intervention / Exposure	Abstract: Is there a description regarding the interventions/exposures (or, broadly, independent variables) addressed in the review?	No
Completeness	Abstract: Is there a description of the number of included studies?	Yes
Outcome	Abstract: Is there a result description for the main outcome of interest?	Yes
Completeness	Introduction: Is there a description for the research question (with PICOS elements) or precisely stated objectives (with PICOS) ?	Yes
Transparency	Methods: Is there at least one search query fully available? (Note: a full search query should allow complete replication)	Yes
Methodological rigor	Methods: Did the search strategy include non-published evidence? ("grey literature")	No
Methodological rigor	Methods: If the search is restricted for evidence generated after 1980, is there an indirect or direct justification related to the time range?	The searches were carried out from the database inception (earliest date)
Methodological rigor	Methods: How many languages were considered for study eligibility?	No restriction
Completeness	Methods: Is there a detailed explanation of eligibility criteria for PICOS elements? (Note: detailed explanation should allow complete replication)	Yes
Methodological rigor	Methods: Was the study selection carried out in duplicate?	Yes
Methodological rigor	Methods: Was the data extraction carried out in duplicate?	No
Methodological rigor	Methods: Is there a description of the assessment of risk of biases?	No
Methodological rigor	Methods: Was the assessment of risk of biases carried out in duplicate?	No
Outcome	Methods: Is there a description of the statistical combination (meta-analysis) regarding the effect measure (e.g., relative risk or mean difference), statistical method (e.g., inverse variance), and effects approach (fixed or random)?	Yes
Outcome	Methods: Is there a description regarding the assessment of statistical heterogeneity?	No

Completeness	Results: Is there a full description regarding the numbers of references (retrieval, eligibility, synthesis)?	Yes
Completeness	Results: Is there a description about the sample sizes of individual studies?	Yes
Participants, Intervention / Exposure	Results: Is there a full description of characteristics? (Note: the available PICOS elements should be considered)	No
Completeness	Results: Is there a description of study duration (follow-up lengths)?	Yes
Outcome	Results: Is there a minimally recommended description of meta-analytic summary estimates? (Note: binary outcomes as frequencies with and without the event (or as proportions such as 12/45); continuous outcomes as the mean, standard deviation, and sample size for each group)	No
Outcome	Results: Is there a full description of individual results for studies composing the meta-analysis? (Note: effects size, imprecision measure and percentage weight should be considered)	No
Critical appraisal	Results: Is there a description of risk of bias within studies? (Note: your assessment should be based on the characteristic of the RoB tool)	No
Critical appraisal	Results: Is there a description for non-planned modifications to the synthesis during the course of the review? (e.g.: change in eligibility criteria or RoB tools; please, what was changed and its justification [why] should be considered).	Yes
Critical appraisal	Discussion: Is there a potential spin bias based on a specific reporting strategy to highlight that the experimental treatment (or condition of interest) leads to the hypothesized result?	No
Critical appraisal	Discussion: Are the results discussed in light of the risk of biases in individual studies?	No
Critical appraisal	Discussion: Are limitations discussed at the study/outcome and/or at the review level?	Yes, BOTH for study and review levels
Transparency	Is there a statement regarding the data availability (data sharing plan)?	No
Completeness	Is there a statement regarding the sources of funding? (Note: funding for the review itself)	No
Completeness	Did the review authors declare whether they had any conflicts of interest (COI)?	Yes, authors declare non-financial COIs

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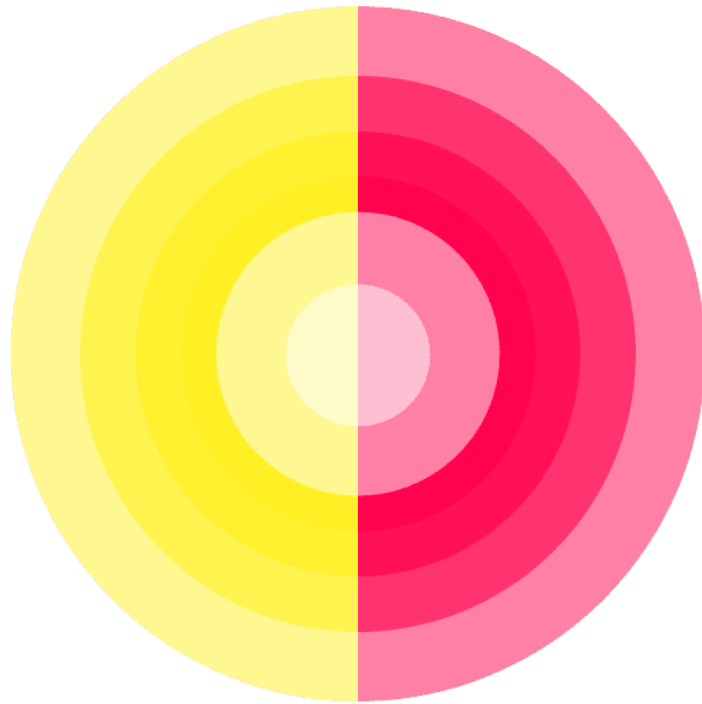
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STRENGTHENING THE EVIDENCE IN EXERCISE SCIENCES
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