

Systematic review of physical activity, suicidal ideation, suicide attempt and death

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Review question

To explore and synthesise available evidence to gain insight into the association between physical activity and suicidal ideation, suicidal behaviour and death by suicide.

Searches [1 change]

Databases searched: CINAHL, PsycARTICLES, MEDLINE, PsycINFO, Web of Science, Embase.

Studies limited to English and Polish language only. Research limited to prospective, quantitative, and human studies only. No limitations regarding publication date.

Types of study to be included

Prospective cohort studies.

Quantitative.

Original peer-reviewed research.

Condition or domain being studied

Lifetime suicidal ideation and behaviour.

Participants/population

Inclusion: individuals of any age.

Intervention(s), exposure(s)

Physical activity (defined as any intervention that use bodily movement produced by skeletal muscles and which requires energy expenditure, Caspersen et al., 1985).

Comparator(s)/control

Those with no history of suicidal ideation or behaviour.

Context

No restrictions.

Main outcome(s)

Suicidal ideation, suicidal behaviour and death by suicide. To narratively identify whether there is an association between physical activity and later suicidality.

Additional outcome(s)

The association between Physical Activity and suicidal ideation and behaviour as a function of sociodemographic, geography, health.

Data extraction (selection and coding)

Suicidal ideation/suicidal behaviour/death by suicide have to be the outcome.

Physical activity has to be the predictor/moderator/mediator.

Prospective cohort studies.

Quantitative.

Original peer-reviewed research.

In English/Polish.

Titles and abstracts will be screened for meeting eligibility in full by main reviewer and 20% will be screened blindly by second reviewer.

The main reviewer will screen full texts for eligibility in full, and the second reviewer will screen 20% blindly.

Queries will be discussed with the supervisor, and a consensus will be reached to resolve the issues.

An author-developed data extraction table will be created to record data. Data to be extracted and documented will include: authors, year, location, study aim, study design, methodology, sample characteristics, exposure measure, outcome domain and measure, and key findings including the effect size and relevant statistics. Main reviewer will extract the data and they will check a proportion of the extracted data for accuracy.

Missing data will be handled by contacting investigators for unreported data or additional details as needed.

Risk of bias (quality) assessment

The main reviewer will use the CASP Cohort Study Checklist for the critical appraisal of the studies. The main reviewer will appraise all studies. Any difficulties will be discussed and resolved with supervisor.

Strategy for data synthesis

Studies included in this review will be collated and summarised using a systematic, narrative approach. This will include overall association, well as exploration as a function of demographics (age, gender etc.) and outcome variable (e.g., suicidal ideation versus suicide attempt). There will be no restriction on the minimum number of studies required for narrative synthesis, as we believe an accurate account of the existing literature (or lack thereof) will help inform readers of any literature which may be beneficial to advance the research landscape efficiently. Regardless of number of studies included in the analysis or sub-analysis of the narrative summaries, inconsistencies between the study findings will be explored to account for the observed variations (e.g., sample size, duration of follow-up).

Analysis of subgroups or subsets

If numbers allow, we will run the analysis separately for the three outcomes: suicidal ideation, suicidal behaviour and death by suicide.

Contact details for further information

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Organisational affiliation of the review

University of Glasgow

Review team members and their organisational affiliations

Ms Maja Wieladek. University of Glasgow

Dr Heather McClelland. School of Health & Wellbeing, University of Glasgow

Type and method of review

Systematic review

Anticipated or actual start date

26 February 2024

Anticipated completion date [1 change]

30 April 2025

Funding sources/sponsors

None. Main reviewer completes a doctorate in clinical psychology

Conflicts of interest

Language

English

Country

Scotland

Stage of review

Review Ongoing

Subject index terms status

Subject indexing assigned by CRD

Subject index terms

Humans; Mental Processes; Risk Factors; Suicidal Ideation; Suicide, Attempted

Date of registration in PROSPERO

02 July 2024

Date of first submission

26 June 2024

Stage of review at time of this submission [1 change]

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

Revision note

I have updated the completion date to a later time - 30/04/25. I also updated you on the progress of the review. I had to update the completion date as I wish to edit one question of the Prospero application - namely, I want to make updates in Q27. I will be using the JBI rather than the CASP Cohort tool for critical appraisal of studies, as the JBI tool is more relevant to psychological research.

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

02 July 2024

04 February 2025

PROSPERO

This information has been provided by the named contact for this review. CRD has accepted this information in good faith and registered the review in PROSPERO. The registrant confirms that the information supplied for this submission is accurate and complete. CRD bears no responsibility or liability for the content of this registration record, any associated files or external websites.