# PRISMA 2020 Checklist

| Section/topic | Item No | Checklist item | Reported on Page Number/Line Number | Reported on Section/Paragraph |
|---|---|---|---|---|
| **TITLE** | | | | |
| Title | 1 | Identify the report as a systematic review. | Page 1/Line 1 | Title |
| **ABSTRACT** | | | | |
| Abstract | 2 | See the PRISMA 2020 for Abstracts checklist (Table 2). | Page 3/Line 39-60 | Abstract |
| **INTRODUCTION** | | | | |
| Rationale | 3 | Describe the rationale for the review in the context of existing knowledge. | Page 5/Line 65-76 | Introduction/Paragraph 1 |
| Objectives | 4 | Provide an explicit statement of the objective(s) or question(s) the review addresses. | Page 5/Line 77-80 | Introduction/Paragraph 2 |
| **METHODS** | | | | |
| Eligibility criteria | 5 | Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses. | Page 6/Line 92-99 | Methods/Eligibility |
| Information sources | 6 | Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted. | Page 5/Line 84-86 | Methods/Literature searching |
| Search strategy | 7 | Present the full search strategies for all databases, registers and websites, including any filters and limits used. | Page 6/Line 87-90 | Methods/Literature |
| Selection process | 8 | Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process. | Page 5-6/Line 84-85, 89-90, 92-103 | Methods |
| Data collection process | 9 | Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process. | Page 6/Line 100-103 | Methods/Data extraction |
| Data items | 10a | List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (e.g. for all measures, time points, analyses), and if not, the methods used to decide which results to collect. | Page 6-7/Line 104-112 | Methods/Statistical analysis |
| | 10b | List and define all other variables for which data were sought (e.g. participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information. | Page 6, 8/Line 100-102, 135-152 | Methods/Results |

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| Study risk of bias assessment | 11 | Specify the methods used to assess risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process. | Page 6/Line 97-99 | Methods/Eligibility criteria and data screening |
| Effect measures | 12 | Specify for each outcome the effect measure(s) (e.g. risk ratio, mean difference) used in the synthesis or presentation of results. | Page 7/Line 113-114 | Methods/Statistical analysis |
| Synthesis methods | 13a | Describe the processes used to decide which studies were eligible for each synthesis. | Page 6-7/Line 97-98, | Methods |
| | 13b | Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions. | Page 7/Line 115-118 | Methods/Statistical analysis |
| | 13c | Describe any methods used to tabulate or visually display results of individual studies and syntheses. | Page 7/Line 119-120 | Methods/Statistical |
| | 13d | Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used. | Page 7-8/Line 120-131 | Methods/Statistical analysis |
| | 13e | Describe any methods used to explore possible causes of heterogeneity among study results. | Page 7/Line 120-130 | Methods/Statistical |
| | 13f | Describe any sensitivity analyses conducted to assess robustness of the synthesized results. | Page 7/Line 129-131 | Methods/Statistical |
| Reporting bias assessment | 14 | Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases). | Page 7/Line 127-129 | Methods/Statistical analysis |
| Certainty assessment | 15 | Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome. | Page 7-8/Line 129-132 | Methods/Statistical analysis |
| **RESULTS** | | | | |
| Study selection | 16a | Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram. | Page 8/Line 135-143 | Results/Literature Search |
| | 16b | Cite studies that met many but not all inclusion criteria ('near-misses') and explain why they were excluded. | Page 8/Line 140-141 | Results/Literature Search |
| Study characteristics | 17 | Cite each included study and present its characteristics. | Page 8/Line 142-152 | Results |
| Risk of bias in studies | 18 | Present assessments of risk of bias for each included study. | Page 9-11/Line 160-164, 173-175, 191-192. | Results |
| Results of individual studies | 19 | For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimate and its precision (e.g. confidence/credible interval), ideally using structured tables or plots. | Page 8-11/Line 149-199 | Results |

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| Results of syntheses | 20a | For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies. | Page 8-11/Line 155-199 | Results |
| | 20b | Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g. confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect. | Page 8-10/Line 156-176 | Results |
| | 20c | Present results of all investigations of possible causes of heterogeneity among study results. | Page 8-11/Line 155-199 | Results |
| | 20d | Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results. | Page 8-11/Line 164-201 | Results |
| Reporting biases | 21 | Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed. | Page 8-11/Line 155-199 | Results |
| Certainty of evidence | 22 | Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed. | Page 8-11/Line 155-201 | Results |
| **DISCUSSION** | | | | |
| Discussion | 23a | Provide a general interpretation of the results in the context of other evidence. | Page 11/Line 204-297 | Discussion |
| | 23b | Discuss any limitations of the evidence included in the review. | Page 14/Line 263-267 | Discussion |
| | 23c | Discuss any limitations of the review processes used. | Page 14/Line 263-267 | Discussion |
| | 23d | Discuss implications of the results for practice, policy, and future research. | Page 14/Line 272-277 | Discussion |
| **OTHER INFORMATION** | | | | |
| Registration and protocol | 24a | Provide registration information for the review, including register name and registration number, or state that the review was not registered. | Page 15/Line 293-294 | Footnotes |
| | 24b | Indicate where the review protocol can be accessed, or state that a protocol was not prepared. | Page 5/Line 83-84, 92 | Methods |
| | 24c | Describe and explain any amendments to information provided at registration or in the protocol. | Page 6/Line 89-90 | Methods |
| Support | 25 | Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review. | Page 15/Line 286-287 | Funding |
| Competing interests | 26 | Declare any competing interests of review authors. | Page 15/Line 290-291 | Conflicts of Interest |
| Availability of data, code and other materials | 27 | Report which of the following are publicly available and where they can be found: template data collection forms; data extracted from included studies; data used for all analyses; analytic code; any other materials used in the review. | Page 8/Line 143, 147-149 | Characteristics of the included studies |

## Table 2 PRISMA 2020 for Abstracts checklist

| Section/topic | Item No | Checklist item | Reported on Page Number/Line Number | Reported on Section/Paragraph |
|---|---|---|---|---|
| **TITLE** | | | | |
| Title | 1 | Identify the report as a systematic review. | Page 1/Line 1 | Title |
| **BACKGROUND** | | | | |
| Objectives | 2 | Provide an explicit statement of the main objective(s) or question(s) the review addresses. | Page 3/Line 40-42 | Abstract/Background |
| **METHODS** | | | | |
| Eligibility criteria | 3 | Specify the inclusion and exclusion criteria for the review. | Page 3/Line 43 | Abstract/Methods |
| Information sources | 4 | Specify the information sources (e.g. databases, registers) used to identify studies and the date when each was last searched. | Page 3/Line 43 | Abstract/Methods |
| Risk of bias | 5 | Specify the methods used to assess risk of bias in the included studies. | Page 3/Line 46 | Abstract/Methods |
| Synthesis of results | 6 | Specify the methods used to present and synthesize results. | Page 3/Line 44-46 | Abstract/Methods |
| **RESULTS** | | | | |
| Included studies | 7 | Give the total number of included studies and participants and summarise relevant characteristics of studies. | Page 3/Line 48-50 | Abstract/Results |
| Synthesis of results | 8 | Present results for main outcomes, preferably indicating the number of included studies and participants for each. If meta-analysis was done, report the summary estimate and confidence/credible interval. If comparing groups, indicate the direction of the effect (i.e. which group is favoured). | Page 3/Line 51-57 | Abstract/Results |
| **DISCUSSION** | | | | |
| Limitations of evidence | 9 | Provide a brief summary of the limitations of the evidence included in the review (e.g. study risk of bias, inconsistency and imprecision). | Page 3/Line 60 | Abstract/Conclusions |
| Interpretation | 10 | Provide a general interpretation of the results and important implications. | Page 3/Line 59 | Abstract/Conclusions |
| **OTHER** | | | | |
| Funding | 11 | Specify the primary source of funding for the review. | Page 15/Line 286-287 | Funding |
| Registration | 12 | Provide the register name and registration number. | Page 15/Line 293-294 | Footnotes |

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*As the checklist was provided upon initial submission, the page number/line number reported may be changed due to copyediting and may not be referable in the published version. In this case, the section/paragraph may be used as an alternative reference.