**APPENDIX 1** Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) Checklist

| **SECTION** | **ITEM** | **PRISMA-ScR CHECKLIST ITEM** | **REPORTED ON PAGE #** |
| --- | --- | --- | --- |
| **TITLE** |
| Title | 1 | Identify the report as a scoping review. | 1 |
| **ABSTRACT** |
| Structured summary | 2 | Provide a structured summary that includes (as applicable): background, objectives, eligibility criteria, sources of evidence, charting methods, results, and conclusions that relate to the review questions and objectives. | 2 |
| **INTRODUCTION** |
| Rationale | 3 | Describe the rationale for the review in the context of what is already known. Explain why the review questions/objectives lend themselves to a scoping review approach. | 2-3 |
| Objectives | 4 | Provide an explicit statement of the questions and objectives being addressed with reference to their key elements (e.g., population or participants, concepts, and context) or other relevant key elements used to conceptualize the review questions and/or objectives. | 3 |
| **METHODS** |
| Protocol and registration | 5 | Indicate whether a review protocol exists; state if and where it can be accessed (e.g., a Web address); and if available, provide registration information, including the registration number. | 3 |
| Eligibility criteria | 6 | Specify characteristics of the sources of evidence used as eligibility criteria (e.g., years considered, language, and publication status), and provide a rationale. | 4-5 |
| Information sources\* | 7 | Describe all information sources in the search (e.g., databases with dates of coverage and contact with authors to identify additional sources), as well as the date the most recent search was executed. | 4 |
| Search | 8 | Present the full electronic search strategy for at least 1 database, including any limits used, such that it could be repeated. | 4 |
| Selection of sources of evidence† | 9 | State the process for selecting sources of evidence (i.e., screening and eligibility) included in the scoping review. | 4 |
| Data charting process‡ | 10 | Describe the methods of charting data from the included sources of evidence (e.g., calibrated forms or forms that have been tested by the team before their use, and whether data charting was done independently or in duplicate) and any processes for obtaining and confirming data from investigators. | 5 |
| Data items | 11 | List and define all variables for which data were sought and any assumptions and simplifications made. | 5 |
| Critical appraisal of individual sources of evidence§ | 12 | If done, provide a rationale for conducting a critical appraisal of included sources of evidence; describe the methods used and how this information was used in any data synthesis (if appropriate). | 5 |
| Synthesis of results | 13 | Describe the methods of handling and summarizing the data that were charted. | 5 |
| **RESULTS** |
| Selection of sources of evidence | 14 | Give numbers of sources of evidence screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally using a flow diagram. | 6 |
| Characteristics of sources of evidence | 15 | For each source of evidence, present characteristics for which data were charted and provide the citations. | Table 2 |
| Critical appraisal within sources of evidence | 16 | If done, present data on critical appraisal of included sources of evidence (see item 12). | Click here to enter text. |
| Results of individual sources of evidence | 17 | For each included source of evidence, present the relevant data that were charted that relate to the review questions and objectives. | Click here to enter text. |
| Synthesis of results | 18 | Summarize and/or present the charting results as they relate to the review questions and objectives. | Click here to enter text. |
| **DISCUSSION** |
| Summary of evidence | 19 | Summarize the main results (including an overview of concepts, themes, and types of evidence available), link to the review questions and objectives, and consider the relevance to key groups. | Click here to enter text. |
| Limitations | 20 | Discuss the limitations of the scoping review process. | Click here to enter text. |
| Conclusions | 21 | Provide a general interpretation of the results with respect to the review questions and objectives, as well as potential implications and/or next steps. | Click here to enter text. |
| **FUNDING** |
| Funding | 22 | Describe sources of funding for the included sources of evidence, as well as sources of funding for the scoping review. Describe the role of the funders of the scoping review. | Click here to enter text. |

JBI = Joanna Briggs Institute; PRISMA-ScR = Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews.

\* Where *sources of evidence* (see second footnote) are compiled from, such as bibliographic databases, social media platforms, and Web sites.

† A more inclusive/heterogeneous term used to account for the different types of evidence or data sources (e.g., quantitative and/or qualitative research, expert opinion, and policy documents) that may be eligible in a scoping review as opposed to only studies. This is not to be confused with *information sources* (see first footnote).

‡ The frameworks by Arksey and O’Malley (6) and Levac and colleagues (7) and the JBI guidance (4, 5) refer to the process of data extraction in a scoping review as data charting*.*

§The process of systematically examining research evidence to assess its validity, results, and relevance before using it to inform a decision. This term is used for items 12 and 19 instead of "risk of bias" (which is more applicable to systematic reviews of interventions) to include and acknowledge the various sources of evidence that may be used in a scoping review (e.g., quantitative and/or qualitative research, expert opinion, and policy document).

**APPENDIX 2** Search strategy

|  |  |  |
| --- | --- | --- |
| Database | Index and keyword terms | Results |
| *PubMed*  | (((Technology[Title/Abstract] OR internet[Title/Abstract] OR web[Title/Abstract] OR online[Title/Abstract] OR digital[Title/Abstract] OR application[Title/Abstract] OR app[Title/Abstract] OR e-health[Title/Abstract] OR m-health[Title/Abstract] OR mhealth[Title/Abstract] OR teleconferencing[Title/Abstract] OR electronic mail[Title/Abstract] OR email[Title/Abstract] OR e-mail[Title/Abstract] OR artificial intelligence[Title/Abstract] OR AI[Title/Abstract] OR videoconferencing[Title/Abstract] OR multimedia[Title/Abstract] OR phone[Title/Abstract] OR messaging[Title/Abstract] OR media[Title/Abstract] OR "virtual reality"[Title/Abstract] OR "augmented reality"[Title/Abstract] OR "mixed reality"[Title/Abstract] OR computer[Title/Abstract]) AND ("Food choice\*"[Title/Abstract] OR "food selection\*"[Title/Abstract] OR "diet choice\*"[Title/Abstract] OR "food option\*"[Title/Abstract] OR "food preference\*"[Title/Abstract] OR "diet option\*"[Title/Abstract] OR "diet selection\*"[Title/Abstract]))) AND (Randomized[Title/Abstract] OR "control group"[Title/Abstract] OR "randomly assign\*"[Title/Abstract]) | N=141 |
| *EMBASE* | (technology:ab,ti OR internet:ab,ti OR web:ab,ti OR online:ab,ti OR digital:ab,ti OR application:ab,ti OR app:ab,ti OR 'e health':ab,ti OR 'm health':ab,ti OR mhealth:ab,ti OR teleconferencing:ab,ti OR 'electronic mail':ab,ti OR email:ab,ti OR 'e mail':ab,ti OR 'artificial intelligence':ab,ti OR ai:ab,ti OR videoconferencing:ab,ti OR multimedia:ab,ti OR phone:ab,ti OR messaging:ab,ti OR media:ab,ti OR 'virtual reality':ab,ti OR 'augmented reality':ab,ti OR 'mixed reality':ab,ti OR computer:ab,ti) AND ('food choice':ab,ti OR 'food selection':ab,ti OR 'diet choice':ab,ti OR 'food option':ab,ti OR 'food preference\*':ab,ti OR 'diet option':ab,ti OR 'diet selection':ab,ti OR 'healthier food':ab,ti OR 'healthier diet':ab,ti) AND ('randomized controlled trial':ab,ti OR 'controlled clinical trial':ab,ti OR randomized:ab,ti OR placebo:ab,ti OR randomly:ab,ti OR 'control groups':ab,ti OR rct:ab,ti OR 'random allocation':ab,ti OR 'randomly allocated':ab,ti OR randomization:ab,ti OR 'double blind procedure':ab,ti OR 'single blind procedure':ab,ti) | N=177 |
| *The Cochrane Library* | (Technology OR internet OR web OR online OR digital OR application OR app OR e-health OR e-health OR m-health OR mhealth OR teleconferencing OR electronic mail OR email OR e-mail OR artificial intelligence OR AI OR videoconferencing OR multimedia OR phone OR messaging OR media OR “virtual reality” OR “augmented reality” OR “mixed reality” OR computer):ab AND ("Food choice" OR "food selection" OR "diet choice" OR "food option" OR "food preference\*" OR "diet option" OR "diet selection" OR "healthier food" OR "healthier diet"):ab AND (randomized controlled trial OR controlled clinical trial OR randomized OR placebo OR randomly OR control groups OR rct or random allocation or randomly allocated OR randomization OR double blind procedure OR single blind procedure):ab | N=473 (3 reviews not downloaded) |
| *CINAHL* | AB ( Technology OR internet OR web OR online OR digital OR application OR app OR e-health OR e-health OR m-health OR mhealth OR teleconferencing OR electronic mail OR email OR e-mail OR artificial intelligence OR AI OR videoconferencing OR multimedia OR phone OR messaging OR media OR “virtual reality” OR “augmented reality” OR “mixed reality” OR computer ) AND AB ( Food choice OR food selection OR diet choice OR food option OR food preference\* OR diet option OR diet selection OR healthier food OR healthier diet ) AND AB ( randomized controlled trial OR controlled clinical trial OR randomized OR placebo OR randomly OR control groups OR rct or random allocation or randomly allocated OR randomization OR double blind procedure OR single blind procedure ) | N=73 |
| *PsycInfo* | ((Technology or internet or web or online or digital or application or app or e-health or e-health or m-health or mhealth or teleconferencing or electronic mail or email or e-mail or artificial intelligence or AI or videoconferencing or multimedia or phone or messaging or media or virtual reality or augmented reality or mixed reality or computer) and (Food choice or food selection or diet choice or food option or food preference or diet option or diet selection) and (Randomized or control group or randomly assign)).ab. | N=19 |
| *Scopus* | ( TITLE-ABS-KEY ( technology OR internet OR web OR online OR digital OR application OR app OR e-health OR e-health OR m-health OR mhealth OR teleconferencing OR electronic AND mail OR email OR e-mail OR artificial AND intelligence OR ai OR videoconferencing OR multimedia OR phone OR messaging OR media OR "virtual reality" OR "augmented reality" OR "mixed reality" OR computer ) AND ALL ( "Food choice\*" OR "food selection\*" OR "diet choice\*" OR "food option\*" OR "food preference\*" OR "diet option\*" OR "diet selection\*" ) ) | N=167 |
| *Web of Science* | ((TS=(Technology OR internet OR web OR online OR digital OR application OR app OR e-health OR e-health OR m-health OR mhealth OR teleconferencing OR electronic mail OR email OR e-mail OR artificial intelligence OR AI OR videoconferencing OR multimedia OR phone OR messaging OR media OR “virtual reality” OR “augmented reality” OR “mixed reality” OR computer )) AND TS=(“Food choice\*” OR “food selection\*” OR “diet choice\*” OR “food option\*” OR “food preference\*” OR “diet option\*” OR “diet selection\*” )) AND TS=(Randomized OR “control group” OR “randomly assign\*”) | N=274 |

**APPENDIX 2** Risk of bias assessment of the 17 included articles.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Study ID  | Selection bias: Random sequence generation  | Selection bias: Allocation concealment  | Performance bias  | Detection bias  | Attrition bias  | Reporting Bias  | Overall  |
| Allman-Farinelli et al., 2016  | L   | L  | L  | L  | L  | L  | L  |
| Blackburne et al., 2016  | L  | L  | H  | H  | L  | L   | H |
| Coffino et al., 2020  | L   | U     | U   | L  | L  | L  | U  |
| Eisenhauer et al., 2021  | L    | H  | H  | U  | L   | L   | H  |
| Duncan et al., 2020  | L  | H  | H  | H  | L  | L  | H  |
| Hutchesson et al., 2018  | L  | L  | L  | U   | L   | L  | U  |
| Irvine, et al. 2004  | L  | L  | U  | U   | L   | L  | U  |
| Kakoschke et al., 2018  | L  | U  | L  | U   | L   | L  | U  |
| Kaur et al., 2020  | L  | L  | U  | L  | L  | L  | U  |
| Lawrence, et al. 2015  | L  | L  | L   | L  | L  | L   | L  |
| Lugones-Sánchez et al., 2022  | L  | L   | H   | H  | L  | L  | H  |
| Mummah, et al. 2017  | L  | L  | L  | L  | L  | L  | L  |
| O'Brien et al., 2016  | U    | U  | U  | U  | L  | L   | U  |
| Palacios et al., 2018  | L  | L  | U  | U   | L  | L   | U  |
| Partridge et al., 2015  | L  | L  | L  | L  | L  | L  | L  |
| Plaete et al., 2015  | U  | U   | U   | U   | L   | L   | U  |
| Spring et al., 2018  | L  | L  | L  | L  | L  | L   | L  |

Notes: L=low risk of bias; U=unclear risk of bias; H=high risk of bias