

1 **Supplementary material A: PRISMA-ScR checklist**

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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.	3-4
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.	4
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.	4
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.	5
Search	8	Present the full electronic search strategy for at least 1 database, including any limits used, such that it could be repeated.	5 and supplementary material B
Selection of sources of evidence†	9	State the process for selecting sources of evidence (i.e., screening and eligibility) included in the scoping review.	5
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.	5-6
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).	N/A

SECTION	ITEM	PRISMA-ScR CHECKLIST ITEM	REPORTED ON PAGE #
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 and Figure 1
Characteristics of sources of evidence	15	For each source of evidence, present characteristics for which data were charted and provide the citations.	6-7 and Table 1
Critical appraisal within sources of evidence	16	If done, present data on critical appraisal of included sources of evidence (see item 12).	N/A
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.	24-32 (Table 1), 33-42 (Table 2), 43-50 (Table 3) and supplementary material C,
Synthesis of results	18	Summarize and/or present the charting results as they relate to the review questions and objectives.	6-11
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.	11-15
Limitations	20	Discuss the limitations of the scoping review process.	5
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.	16
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.	17

- 3 JBI = Joanna Briggs Institute; PRISMA-ScR = Preferred Reporting Items for Systematic reviews and Meta-
4 Analyses extension for Scoping Reviews.
5 * Where *sources of evidence* (see second footnote) are compiled from, such as bibliographic databases,
6 social media platforms, and Web sites.
7 † A more inclusive/heterogeneous term used to account for the different types of evidence or data sources
8 (e.g., quantitative and/or qualitative research, expert opinion, and policy documents) that may be eligible in a
9 scoping review as opposed to only studies. This is not to be confused with *information sources* (see first
10 footnote).
11 ‡ The frameworks by Arksey and O'Malley (6) and Levac and colleagues (7) and the JBI guidance (4, 5)
12 refer to the process of data extraction in a scoping review as data charting.
13 § The process of systematically examining research evidence to assess its validity, results, and relevance
14 before using it to inform a decision. This term is used for items 12 and 19 instead of "risk of bias" (which is
15 more applicable to systematic reviews of interventions) to include and acknowledge the various sources of
16 evidence that may be used in a scoping review (e.g., quantitative and/or qualitative research, expert opinion,
17 and policy document).

18 **Supplementary material B: Scoping review search strategy**

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20 Search strategy from MEDLINE showing the initial results from a search conducted on the 12th of April 2021

Search	Query	Records retrieved
#1	Subject headings (MESH): nuts/ or prunus dulcis/ or pistacia/ or corylus/ or juglans/ or anacardium/ or macadamia/ or carya/ or peanut agglutinin/ or arachis/ or bertholletia/ or pinus/	17,745
#2	Keywords: (Nut or nuts or almond* or pistachio* or hazelnut* or walnut* or cashew* or macadamia* or pecan* or peanut* or corylus avellana or prunus dulcis or prunus amygdalus or pistacia vera or pistacia or juglans or anacardium occidentale or carya illinoensis or arachis hypogaea or groundnut* or hickory* or goober* or filbert* or brazil nut or pine nut* or tree nut).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	33,998
#3	#1 or #2	369,243
#4	Subject headings (MESH): caloric restriction/ or energy intake/ or diet, reducing/	56,435
#5	Keywords: (energy restrict* or calorie restrict* or hypocaloric or low calorie or reduced calorie or low energy diet* or low calori* diet or low kilojoule* diet*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	11,731

Search	Query	Records retrieved
#6	#4 or #5	61,778
#7	Subject headings (MESH): body weight/ or body mass index/ or body composition/ or weight loss/ or waist circumference/ or weight gain/ or body weight changes/ or body weight maintenance/	384,804
#8	Keywords: (body weight or body mass or percent body fat or weight loss or weight gain or body weight change* or body weight maintenance or body mass index or BMI or waist circumference).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	748,131
#9	#7 or #8	763,692
#10	#3 and #6 and #9	236

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30 Search strategy from EMBASE showing the initial results from a search conducted on the 12th of April 2021

Search	Query	Records retrieved
#1	Subject headings (Emtree): nuts/ or almond/ or pistachio/ or pistachio nut/ or pistacia/ or hazelnut/ or walnut/ or cashew nut/ or anacardium/ or macadamia/ or pecan/ or peanut/ or corylus avellana/ or carya/ or brazil nut/	25,873
#2	Keywords: (Nut or nuts or almond* or pistachio* or hazelnut* or walnut* or cashew* or macadamia* or pecan* or peanut* or corylus avellana or prunus dulcis or prunus amygdalus or pistacia vera or pistacia or juglans or anacardium occidentale or carya illinoensis or arachis hypogaea or groundnut* or hickory* or goober* or filbert* or brazil nut or pine nut* or tree nut).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]	52,670
#3	#1 or #2	52,727
#4	Subject headings (Emtree): caloric restriction/ or caloric intake/ or low calory diet/ or low-calorie diet/	75,097
#5	Keywords: (energy restrict* or calorie restrict* or hypocaloric or low calorie or reduced calorie or low energy diet* or low calori* diet or low kilojoule* diet*).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]	16,712
#6	#4 or #5	84,887

Search	Query	Records retrieved
#7	Subject headings (Emtree): body weight/ or body mass/ or body fat/ or body composition/ or body weight loss/ or body weight gain/, body weight change/, weight change/, body weight maintenance, waist circumference/	896,365
#8	Keywords: (body weight or body mass or percent body fat or weight loss or weight gain or body weight change* or body weight maintenance or body mass index or BMI or waist circumference).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]	1,263,450
#9	#7 or #8	1,297,274
#10	#3 and #6 and #9	580

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40 Search strategy from Scopus showing the initial results from a search conducted on the 12th of April 2021

Search	Query	Records retrieved
#1	Keywords: TITLE-ABS-KEY (nut OR nuts OR almond* OR pistachio* OR hazelnut* OR walnut* OR cashew* OR macadamia* OR pecan* OR peanut* OR "corylus avellana" OR "prunus dulcis" OR "prunus amygdalus" OR "pistacia vera" OR pistacia OR juglans OR "anacardium occidentale" OR "carya illinoensis" OR "arachis hypogaea" OR groundnut* OR hickory* OR goober* OR filbert* OR "brazil nut" OR "pine nut*" OR "tree nut")	103,302
#2	Keywords: TITLE-ABS-KEY ("energy restrict*" OR "calorie restrict*" OR hypocaloric OR "low calorie" OR "reduced calorie" OR "low energy diet*" OR "low calori* diet" OR "low kilojoule* diet*")	15,946
#3	Keywords: TITLE-ABS-KEY ("body weight" OR "body mass" OR "percent body fat" OR "weight loss" OR "weight gain" OR "body weight change*" OR "body weight maintenance" OR "body mass index" OR bmi OR "waist circumference")	1,136,494
#4	#1 and #2 and #3	43

41 Scopus does not use MESH or Emtree subject headings

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Supplementary material C: Summary table displaying the additional benefit of including nuts in an energy restricted diet

		Weight	BMI	Fat mass (kg)	Fat mass (%)	Lean mass (kg)	Lean mass (%)	Fat-free mass (kg)	Fat-free mass (%)	Glucose	Insulin	HOMA-IR	HOMA-β
Abazarfard et al. ⁽³⁹⁾		↓*	↓*	-	-	-	-	-	-	↓*	-	-	-
Alves et al. ⁽³⁴⁾ and Moreira	CVP	X	X	X	X	X	X	-	-	X	X	X	-
Alves et al. ⁽³⁵⁾	HOP	X	X	X	X	X	X	-	-	X	X	X	-
de Oliveira Fialho et al. ⁽⁴¹⁾	SP	↓*	X	-	↓	-	↑	-	-	X	X	X	-
	WP	X	↓*	-	X	-	X	-	-	X	X	X	-
Dhillon et al. ⁽³⁶⁾		X	-	X	↓*	-	-	X	↑*	X	X	-	-
Li et al. ⁽⁴⁰⁾		X	↓*	-	-	-	-	-	-	X	X	-	-
Rock et al. ⁽³⁷⁾	IS WR	↓*	-	-	-	-	-	-	-	X	X	X	X
	IR WR	X	-	-	-	-	-	-	-	X	X	X	X

		Weight	BMI	Fat mass (kg)	Fat mass (%)	Lean mass (kg)	Lean mass (%)	Fat-free mass (kg)	Fat-free mass (%)	Glucose	Insulin	HOMA-IR	HOMA-β
	IS LF	x	-	-	-	-	-	-	-	x	x	x	x
	IR LF	x	-	-	-	-	-	-	-	x	x	x	x
	IS LC	x	-	-	-	-	-	-	-	x	x	x	x
	IR LC	x	-	-	-	-	-	-	-	x	x	x	x
Wein et al. (38)		↓*	↓*	↓*	-	-	-	x	-	x	x	x	-

BMI, body mass index; HOMA-IR, homeostatic model of assessment for insulin resistance; HOMA-β, homeostatic model of assessment of β cell function; ↓*, significantly greater reduction after the nut-enriched diet compared to the nut-free diet; -, outcome was not reported; CVP, conventional peanut diet; x, no significant difference between groups; HOP, high oleic peanut diet; SP, skinned peanut diet; ↓, significantly greater reduction after the nut free diet compared to the nut enriched diet (NB: different at baseline); ↑, significantly greater increase after the nut free diet compared to the nut enriched diet (NB: different at baseline); ↑*, significantly greater increase after the nut-enriched diet compared to the nut free diet; IS WR, insulin-sensitive walnut rich diet; IR WR, insulin-resistant walnut rich diet; IS LF, insulin-sensitive low fat/ high carbohydrate diet; IR LF, insulin-resistant low fat/ high carbohydrate diet; IS LC, insulin-sensitive low carbohydrate/high fat diet; IR LC, insulin-resistant low carbohydrate/high fat diet.