Supplementary Information 1: PRISMA-ScR Checklist

Section and Topic	Item #	Checklist item	Location where item is reported
TITLE			
Title	1	Identify the report as a systematic review.	Title page
ABSTRACT			
Abstract	2	See the PRISMA 2020 for Abstracts checklist.	Title page
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	1-2
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	2
METHODS			
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	3
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.	3
Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	Supplementary Information 2
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.	2-3
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.	4
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.	Table 3
	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.	Table 3

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.	3-4
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.	Table 3
Synthesis methods	13a	Describe the processes used to decide which studies were eligible for each synthesis (e.g. tabulating the study intervention characteristics and comparing against the planned groups for each synthesis (item #5)).	3-4
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	n/a
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	3-4
	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.	3-5
	13e	Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression).	n/a
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesized results.	n/a
Reporting bias assessment	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).	Supplementary Information 4
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	n/a
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.	4
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	Supplementary Information 3
Study characteristics	17	Cite each included study and present its characteristics.	4, Table 3

Risk of bias in studies	18	Present assessments of risk of bias for each included study.	4, Supplementary Information 4
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.	4-8, Table 3
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.	Supplementary Information 4
	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.	n/a
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	n/a
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.	n/a
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	Supplementary Information 4
Certainty of evidence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	n/a
DISCUSSION			
Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	8-9
	23b	Discuss any limitations of the evidence included in the review.	9-10
	23c	Discuss any limitations of the review processes used.	9
	23d	Discuss implications of the results for practice, policy, and future research.	10
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.	11
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	11

	24c	Describe and explain any amendments to information provided at registration or in the protocol.	n/a
Support	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	11
Competing interests	26	Declare any competing interests of review authors.	11
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.	11

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Supplementary Information 2: Example Search Strategy for Medline via EBSCOhost

1 - “Educational toolkit*” OR “Knowledge translation*” OR Toolkit* OR Toolset* OR “Educational package*” OR “Educational module*” OR “Educational e-module*” OR “Educational emodule*” OR “Educational application*” OR “Educational app*” OR “Learning tool*” OR “Learning resource*” OR “Learning package*” OR “Learning module*” OR “Learning e-module*” OR “Learning emodule*” OR “Training tool*” OR “Teaching tool*” OR “Learning strateg*” OR “Educational programme*” OR “Educational program*” OR “Educational material*” OR “Teaching aid*” OR “KT intervention*” OR “Knowledge translation intervention*” OR “Training course*” OR “Training programme*” OR “Training program*” OR “Training skills course*” OR “Training module*” OR “Training e-module*” OR “Training emodule*” – free-text terms

2 - “Educational technology” OR “Educational model” OR Education OR “Program development” OR – MeSH headings

3 - 1 OR 2

4 - “Behaviour” OR “Avoidance behaviour” OR “Avoidance behavior” OR “Behaviour influence” OR “Behavior influence” OR “Behaviour change*” OR “Behavior change*” OR “Behaviour impact*” OR “Behavior impact*” OR “Behaviour intervention*” OR “Behavior intervention*” OR “Positive behaviour change” OR “Positive behavior change” OR “Habit change” OR “Effective behaviour” OR “Effective behavior” OR “Product change” OR “Product use change” OR “Product use influence” OR “Product purchasing behaviour” OR “Product purchasing behavior” OR “Product purchasing behaviour change” OR “Product purchasing behavior change” OR “Consumer influence” OR “Increased knowledge” OR “Health risk perception” OR “Product safety belief*” OR “Health belief*” OR “Action” OR “Cue to action”

OR “Perceived susceptibility” OR “Perceived severity” OR “Health motivation” OR “Perceived benefit*” OR “Perceived barrier*” OR “Self-efficacy” – free-text terms

5 - Behavior OR “Avoidance behavior” OR “Health behavior” OR “Health risk behaviors” – MeSH heading

6 - 4 OR 5

7 - “Personal care product*” OR Cosmetic* OR “Selfcare product*” OR Makeup OR Skincare OR “Skin care product*” OR Haircare OR “Hair care product*” OR Deodorant* OR Fragrance* OR Perfume* OR Bodywash OR Sunscreen OR “Hair dye*” OR “Hygiene product*” OR “Personal hygiene product*” OR “Hair removal product*” OR Paraben* OR Phthalate* OR Triclosan OR Triclocarban Sulphate* OR Sulfate* OR Talc OR “Endocrine disruptor*” OR “Endocrine-disrupting chemical*” OR “Endocrine-disrupting product*” – free-text terms

8 - Cosmetics OR “Environmental health” OR Triclosan – MeSH heading

9 - 7 OR 8

10 - 3 AND 6 AND 9

Supplementary File 3: Primary reason for exclusion of studies in full-text screening

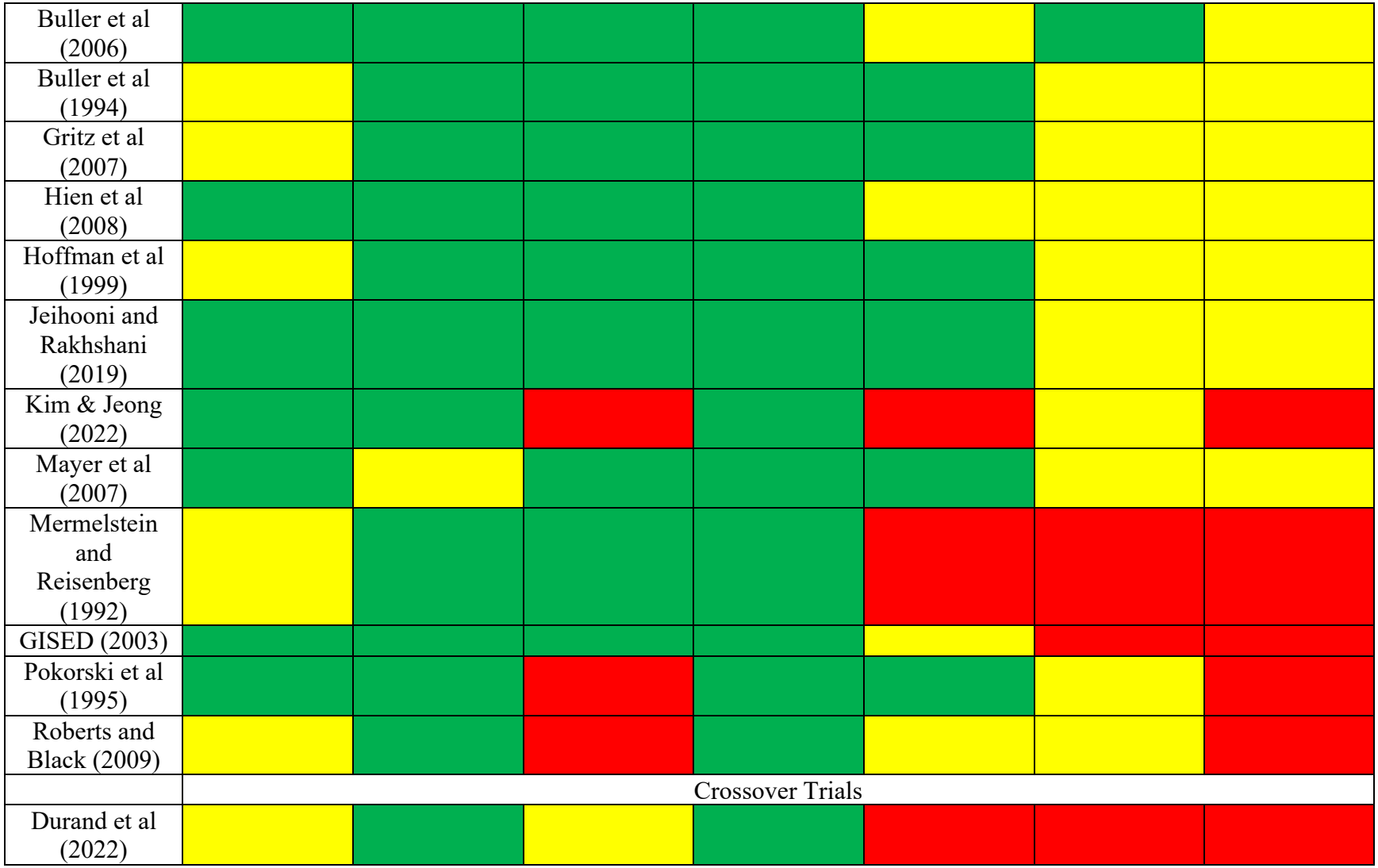
Authors (Year)	Does not test the effectiveness of environmental health-related educational toolkit using a randomized controlled trial (n = 30)	Does not include knowledge translation activity for behaviour change (n = 7)
Abiç et al. (2024)	X	
Agner & Held (2002)		X
Al-Tawfiq & Pittet (2013)	X	
Andrews (2012)	X	
Augustosky et al. (2023)	X	
Ãvila Montes et al. (2012)	X	
Aziz (2014)	X	
Balk et al. (2007)	X	
Bruce & Cowan (2020)		X
Buller et al. (2020)	X	
Burton et al. (2021)	X	
Callejo & Geer (2012)	X	
Cassel et al. (2018)	X	
Coker-Bolt et al. (2017)	X	
Cubillas-Tejeda et al. (2011)		X

Authors (Year)	Does not test the effectiveness of environmental health-related educational toolkit using a randomized controlled trial (n = 30)	Does not include knowledge translation activity for behaviour change (n = 7)
Duarte et al. (2018)	**X**	
Duffy et al. (2013)	**X**	
Erfe et al (2016)	**X**	
Forster-Cox et al. (2010)	**X**	
Forward (2014)	**X**	
Geller et al. (2003)	**X**	
Glanz et al. (2001)		**X**
Hays et al. (2006)	**X**	
Huh et al. (2021)	**X**	
Kaminski (2020)	**X**	
Kim et al. (2022)	**X**	
Kim & Jun (2018)	**X**	
Lombard et al. (1991)	**X**	
Milne et al. (2000)	**X**	
Nicholson (2018)		**X**
Oerther & Oerther (2022)	**X**	

Authors (Year)	Does not test the effectiveness of environmental health-related educational toolkit using a randomized controlled trial (n = 30)	Does not include knowledge translation activity for behaviour change (n = 7)
Robinson (1990)	**X**	
Shendell et al. (2007)	**X**	
Tripathi et al. (2022)	**X**	
Tuong & Armstrong (2015)	**X**	
Urizar et al. (2021).		**X**
Yeasmin et al. (2017)		**X**

Supplemental File 4: Risk of bias table

Author (Year)	D1	D1b or S	D2	D3	D4	D5	Overall
	Parallel Individually Randomized Trials						
Armstrong et al (2011)							
Campbell et al (2011)							
El Ouazzani et al (2021)							
Eshtiaghi et al (2022)							
Glanz et al (2010)							
Glasser et al (2010)							
Mays et al (2011)							
Norman et al (2007)							
Öncü et al (2019)							
Reynolds et al (2008)							
Shin et al (2020)							
Tuong et al (2014)							
Walkosz et al (2007)							
	Cluster Randomized Trials (CRT)						
Aygun & Muslu (2021)							

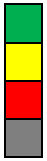


Domains:

D1: Bias arising from the randomization process

D1b or S: Bias due to timing of identification or recruitment of participants (CRT, D1b) or Bias arising from period and carryover effects (crossover trials, DS)

D2: Bias due to deviations from intended intervention
D3: Bias due to missing outcome data
D4: Bias in measurement of the outcome
D5: Bias in selection of the reported result
Colour legend for risk of bias ratings:



Low risk of bias
Moderate risk of bias
High risk of bias
Not applicable

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