

Supplementary Material S4

Supplementary Material S4a. QUIPS Six Potential Sources of Bias and assessment criteria

QUIPS Six Potential Sources of Bias	Assessment Criteria
1. Study Design	1. Was the research question or objective in this paper clearly stated?
	10. Was the exposure(s) assessed more than once over time?
	12. Were the outcome assessors blinded to the exposure status of participants?
2. Study Participation	2. Was the study population clearly specified and defined? <i>Authors reported at least 2/3 of the following: age, substance intake, study setting.</i>
	3. Was the participation rate of eligible persons at least 50%?
	4. Were all the subjects selected or recruited from the same or similar populations (including the same time period)? Were inclusion and exclusion criteria for being in the study prespecified and applied uniformly to all participants?
3. Study Attrition	13. Was loss to follow-up after baseline 20% or less?
4. Associated Factors	9. Were the exposure measures (independent variables) clearly defined, valid, reliable, and implemented consistently across all study participants?
5. Outcome Measures/ Confounding Account	11. Were the outcome measures (dependent variables) clearly defined, valid, reliable, and implemented consistently across all study participants?
	14. Were key potential confounding variables measured and adjusted statistically for their impact on the relationship between exposure(s) and outcome(s)? <i>Authors considered (at least) key potential confounding variable age.</i>
6. Analysis	5. Was a sample size justification, power description, or variance and effect estimates provided?
	6. For the analyses in this paper, were the exposure(s) of interest measured prior to the outcome(s) being measured?
	7. Was the timeframe sufficient so that one could reasonably expect to see an association between exposure and outcome if it existed?
	8. For exposures that can vary in amount or level, did the study examine different levels of the exposure as related to the outcome (e.g., categories of exposure, or exposure measured as continuous variable)?

Supplementary Material S4b. Summary of scoring

1. Crude Score	Each Assessment Criteria was rated as yes (Y), no (N), cannot determine (CD), not reported (NR), or not applicable (NA). The crude score was calculated by dividing the number of 'yes' (Y) responses by the total number of applicable criteria. Criteria rated as not applicable (NA) were excluded from the total.
2. Source of Bias Rating	Each Source of Bias was rated as “+”, “-”, or not applicable (NA): • “+” when most Assessment Criteria were rated as yes (Y) in that Source of Bias category. • “-” when one or more Assessment Criteria were rated as no (N) in that Source of Bias category. • Not applicable (NA) when all Assessment Criteria in that Source of Bias category were rated as NA.
3. Overall Rating	Finally, each study quality was summarized qualitatively into three groups: • Excellent (“++”) when all or most of the Sources of Bias were rated as “+”. Studies that had more than one Assessment Criteria rated as not reported (NR) or cannot determine (CD) cannot be as rated “++”. • Good (“+”) when more than 50% of the Sources of Bias were rated as “+”. • Fair (“-”) when 50% or more of the Sources of Bias were rated as “-”.

Supplementary Material S4c. Quality assessment of included studies using the QUIPS Six Potential Sources of Bias

Study	Assessment Criteria														Crude Score	Source of Bias Rating						Overall Rating
	1	2	3	4	5	6	7	8	9	10	11	12	13	14		1	2	3	4	5	6	
Armitage et al 1995	Y	Y	NR	CD (CD/Y)	N	Y	NA	NA	Y	NA	Y	NA	NA	N	5/9	+	-	NA	+	-	-	- Fair
Armitage et al 2000	Y	Y	NR	CD (CD/Y)	Y	Y	Y	NA	Y	NA	Y	NA	Y	Y	9/11	+	-	+	+	+	+	+ Good
Baker et al 2012	Y	Y	NR	Y (Y/Y)	N	Y	Y	NA	Y	NA	Y	NA	Y	Y	9/11	+	+	+	+	+	+	++ Excellent
Campbell et al 2005	Y	Y	NR	CD (CD/CD)	Y	Y	Y	NA	Y	NA	Y	NA	Y	Y	9/11	+	-	+	+	+	+	+ Good
Campbell et al 2012	Y	Y	NR	CD (Y/CD)	Y	Y	Y	NA	Y	NA	Y	NA	Y	Y	9/11	+	-	+	+	+	+	+ Good
Carrier et al 2001	Y	Y	NR	CD (CD/Y)	Y	Y	Y	NA	Y	NA	Y	NA	Y	Y	9/11	+	-	+	+	+	+	+ Good
Carrier et al 2011	Y	Y	NR	CD (CD/Y)	Y	Y	NA	NA	Y	NA	Y	NA	NA	Y	7/9	+	-	NA	+	+	+	+ Good
Dijk et al 1989	Y	Y	NR	CD (CD/Y)	Y	Y	NA	NA	Y	NA	Y	NA	NA	N	6/9	+	-	NA	+	-	+	+ Good
Feinberg et al 2006	Y	Y	NR	Y (Y/Y)	Y	Y	Y	NA	Y	NA	Y	NA	NR	Y	9/11	+	+	-	+	+	+	+ Good
Fukuda et al 1999	Y	Y	NR	CD (CD/Y)	N	Y	Y	NA	Y	NA	Y	NA	Y	N	8/11	+	-	+	+	-	-	- Fair
Kluge et al 2010	Y	Y	NR	CD (CD/Y)	Y	Y	Y	NA	Y	NA	Y	NA	Y	N	8/11	+	-	+	+	-	+	+ Good
Latta et al 2005	Y	Y	NR	Y (Y/Y)	Y	Y	Y	NA	Y	NA	Y	NA	Y	N	9/11	+	+	+	+	-	+	++ Excellent
Ma et al 2011	Y	N	NR	N (Y/N)	N	Y	NA	NA	Y	NA	Y	NA	NA	N	5/9	+	-	NA	+	-	-	- Fair
Markovic et al 2020	Y	Y	NR	CD (CD/Y)	N	Y	NA	NA	Y	NA	Y	NA	NA	Y	6/9	+	-	NA	+	+	-	+ Good

Mongrain et al 2005	Y	Y	NR	CD (CD/Y)	Y	Y	Y	NA	Y	NA	Y	NA	Y	N	8/11	+	-	+	+	-	+	+	Good
Ricci et al 2021	Y	Y	NR	Y (Y/Y)	Y	Y	Y	NA	Y	NA	Y	NA	Y	Y	10/11	+	+	+	+	+	+	++	Excellent
Ringli et al 2013	Y	Y	NR	CD (CD/Y)	N	Y	NA	NA	Y	NA	Y	NA	NA	Y	6/9	+	-	NA	+	+	-	+	Good
Ujma et al 2019	Y	Y	NR	N (N/Y)	Y	Y	NA	NA	Y	NA	Y	NA	NA	Y	7/9	+	-	NA	+	+	+	+	Good
Yoon et al 2021	Y	Y	Y	Y (Y/Y)	Y	Y	NA	NA	Y	NA	Y	NA	NA	Y	9/9	+	+	NA	+	+	+	++	Excellent

Abbreviations: **CD**, cannot determine; **N**, no; **NA**, not applicable; **NR**, not reported; **Y**, yes