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DATA SUPPLEMENT

Prevalence of post stroke depression and post stroke anxiety in young adults: a systematic review and meta-analysis

Katrina Hannah D. Ignacio, MD¹, Ryan T. Muir, MD¹, Jose Danilo B. Diestro, MD, MSc², Nishita Singh MD, DM, MSc³, Melody Hope Lim Lee Yu⁴, Omar El Omari⁵, Rana Abdalrahman⁶, Suzanne L. Barker-Collo, PhD⁷, Maree L. Hackett, PhD^{8,9}, Sean P. Dukelow¹, MD, PhD¹, Mohammed A. Almekhlafi, MD, MSc^{1,10}

¹Department of Clinical Neurosciences, Calgary Stroke Program, Cumming School of Medicine, University of Calgary, Alberta, Canada. ²Department of Medical Imaging, Division of Diagnostic and Therapeutic Neuroradiology, St Michael's Hospital, University of Toronto, Ontario, Canada. ³Neurology division, Rady Faculty of Health Sciences, University of Manitoba, Winnipeg, Canada. ⁴Ateneo de Manila School of Medicine and Public Health, Manila, Philippines. ⁵Western University, Ontario, Canada. ⁶University of Calgary, Alberta, Canada. ⁷School of Psychology, The University of Auckland, New Zealand. ⁸University of New South Wales, Sydney, Australia. ⁹The School of Nursing and Midwifery, The University of Central Lancashire, Preston, United Kingdom ¹⁰Department of Radiology, Cumming School of Medicine, University of Calgary, Alberta, Canada

LEGEND:

Supplementary Figure 1. Pooled prevalence of PSD in young adults grouped by method of evaluation

Supplementary Figure 2. Pooled prevalence of PSD in young adults grouped by study setting

Supplementary Figure 3. Pooled prevalence of PSD in young adults grouped by study quality

Supplementary Figure 4. Pooled prevalence of PSA in young adults grouped by method of evaluation

Supplementary Figure 5. Pooled prevalence of PSA in young adults grouped by study setting

Supplementary Figure 6. Pooled prevalence of PSA in young adults grouped by study quality

Supplementary Figure 7. Funnel Plot for PSD Studies

Supplementary Figure 8. Funnel Plot for PSA Studies

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Supplementary Table 1. Detailed Search Strategy

Supplementary Table 2. Risk of Bias Assessment of Cohort Studies using the Newcastle Ottawa Scale

Supplementary Table 3. Risk of Bias Assessment of Case Control Studies using the Newcastle Ottawa Scale

Supplementary Table 4. Risk of Bias Assessment of descriptive cross-sectional studies using the AHRQ Tool

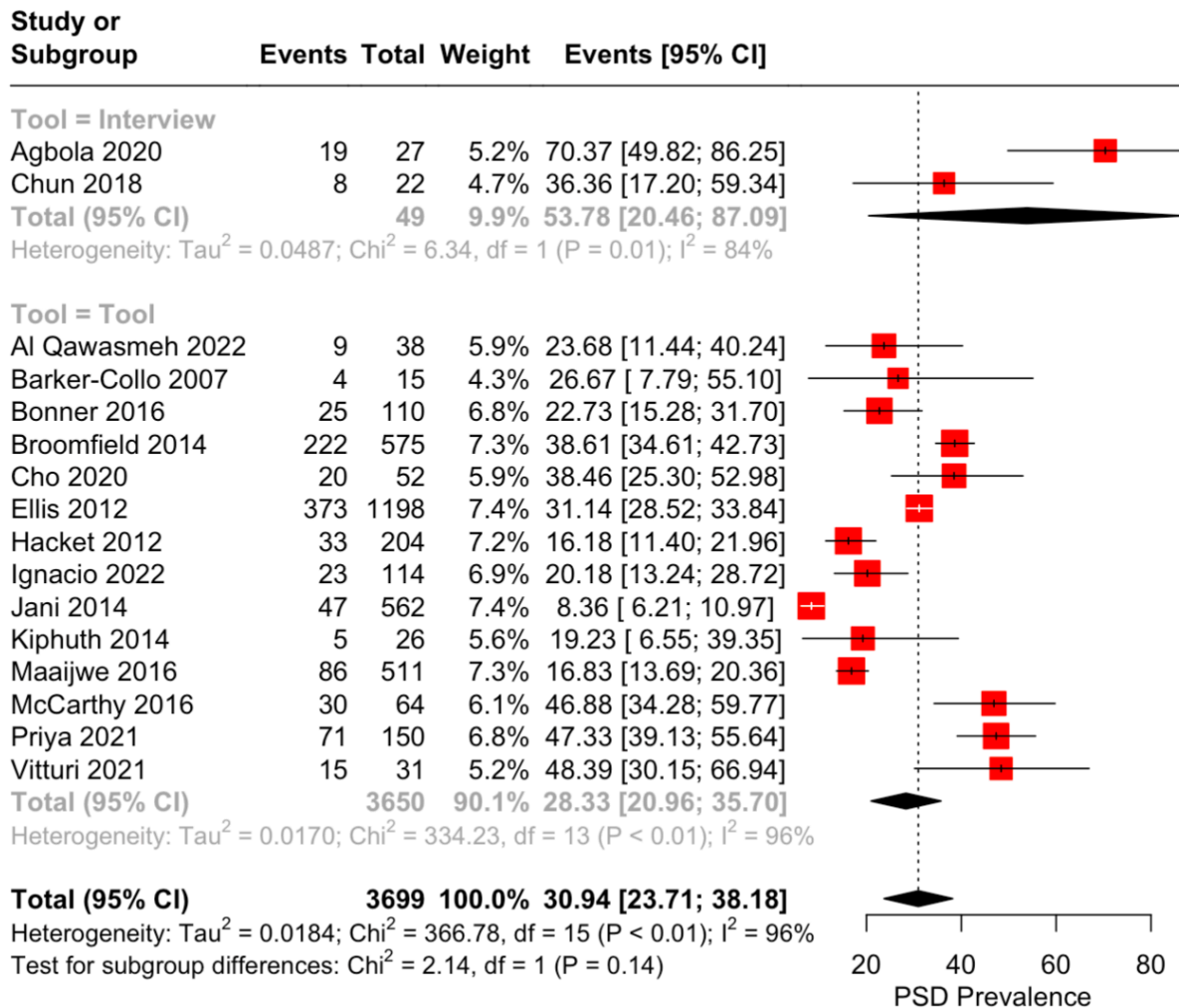
Supplementary Table 5. Data Collection Tool

Supplementary Table 6. Sensitivity and Specificity of Screening Tools in Evaluating Poststroke Depression and Poststroke Anxiety

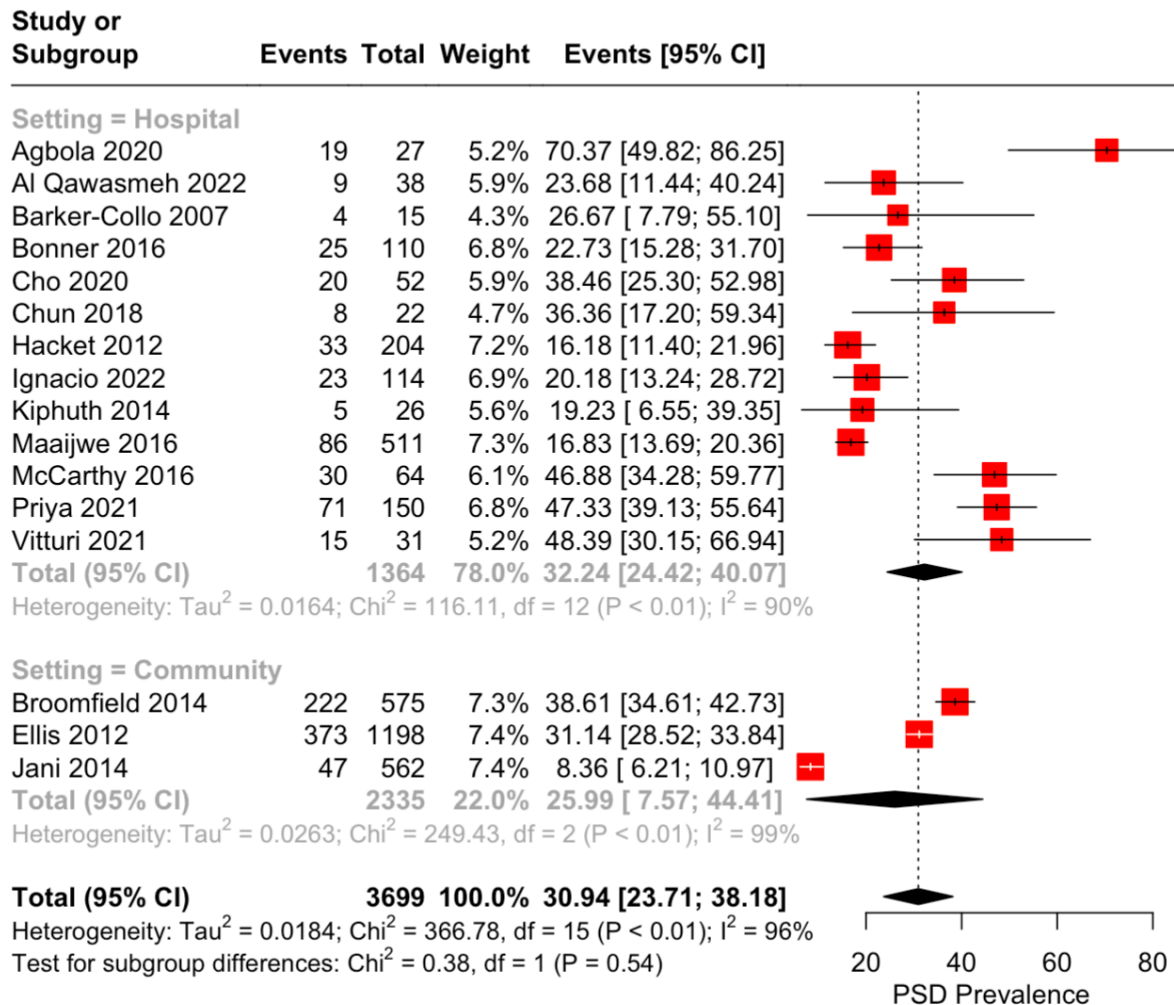
Supplementary Table 7. PRISMA Main Checklist

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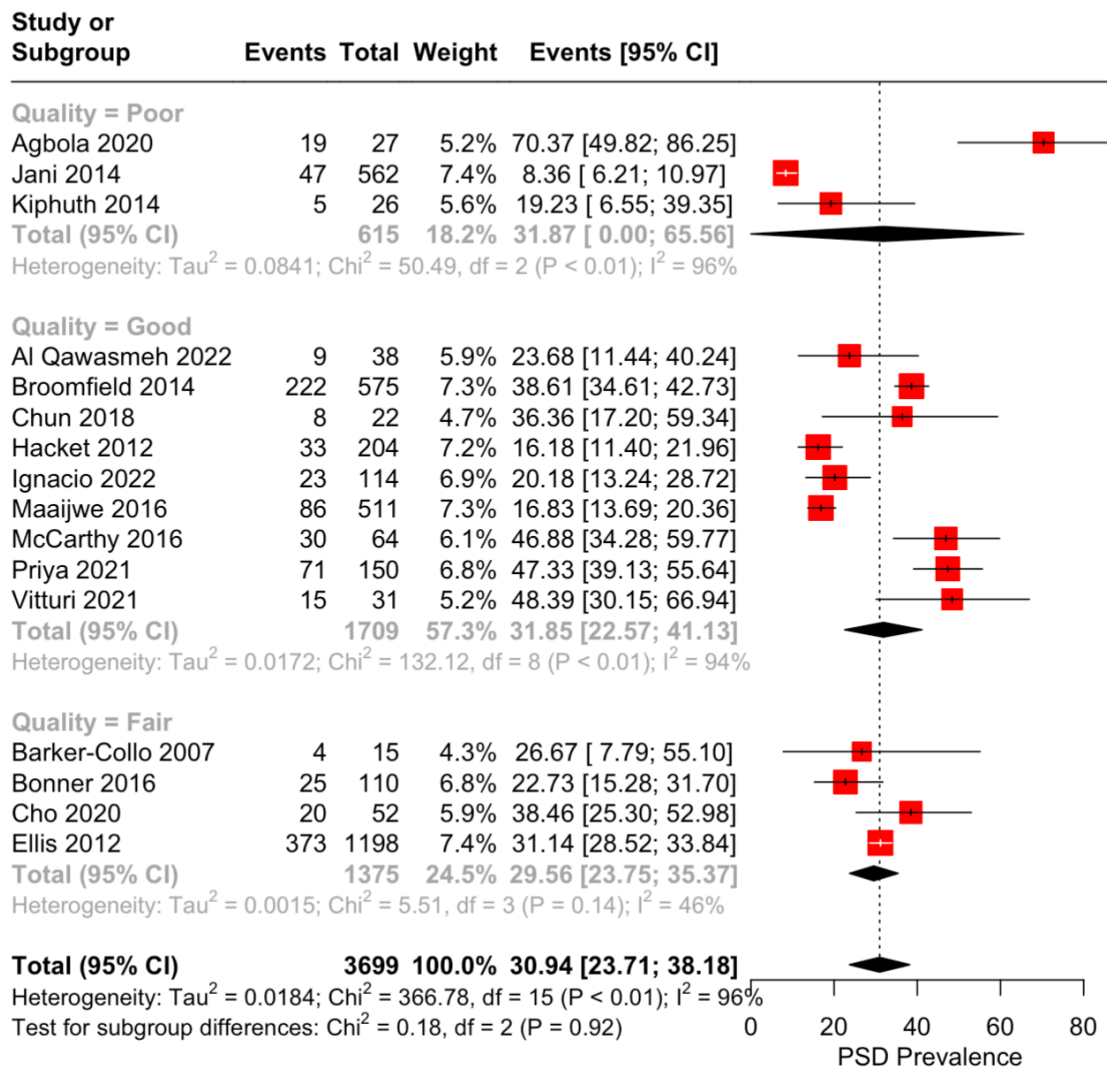
Supplementary Figures



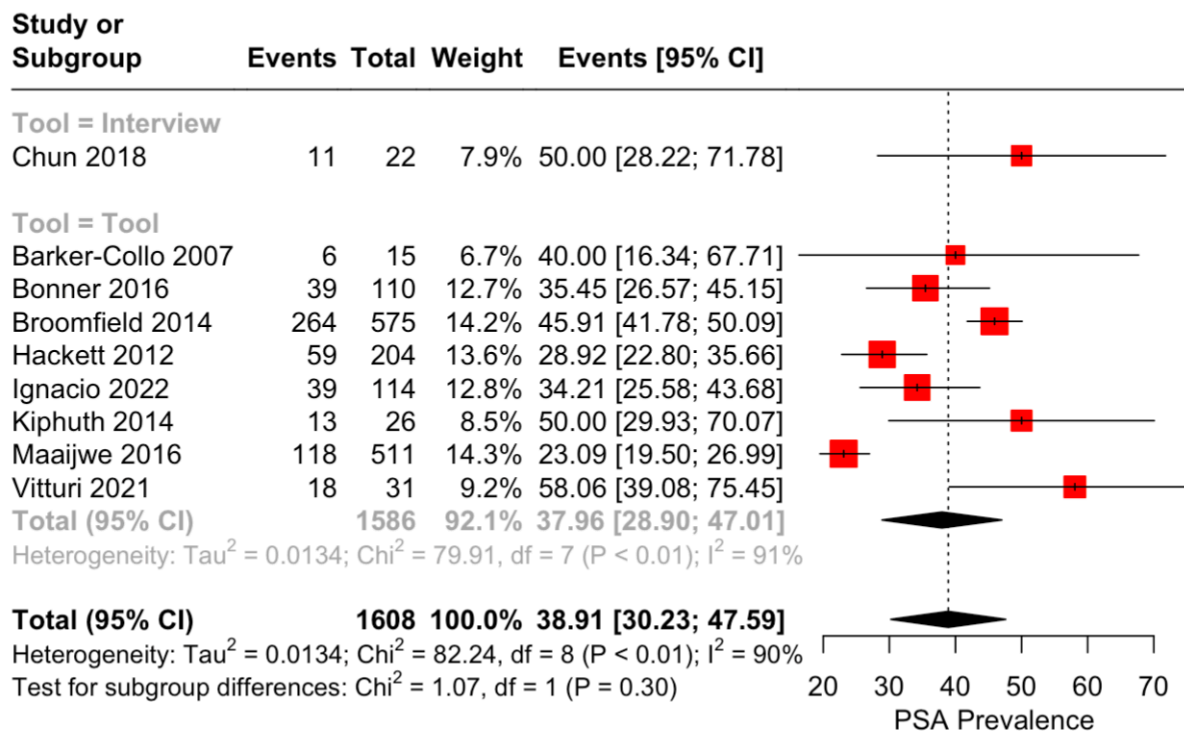
Supplementary Figure 1. Pooled prevalence of PSD in young adults grouped by method of evaluation



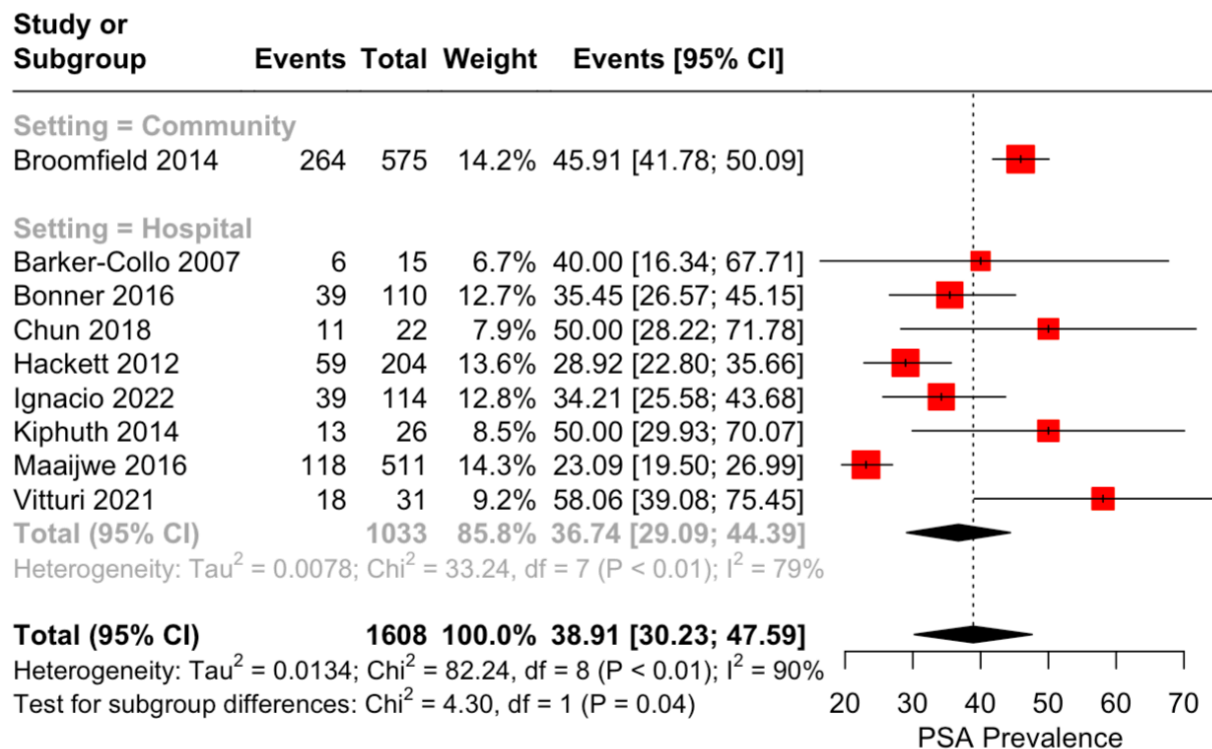
Supplementary Figure 2. Pooled prevalence of PSD in young adults grouped by study setting



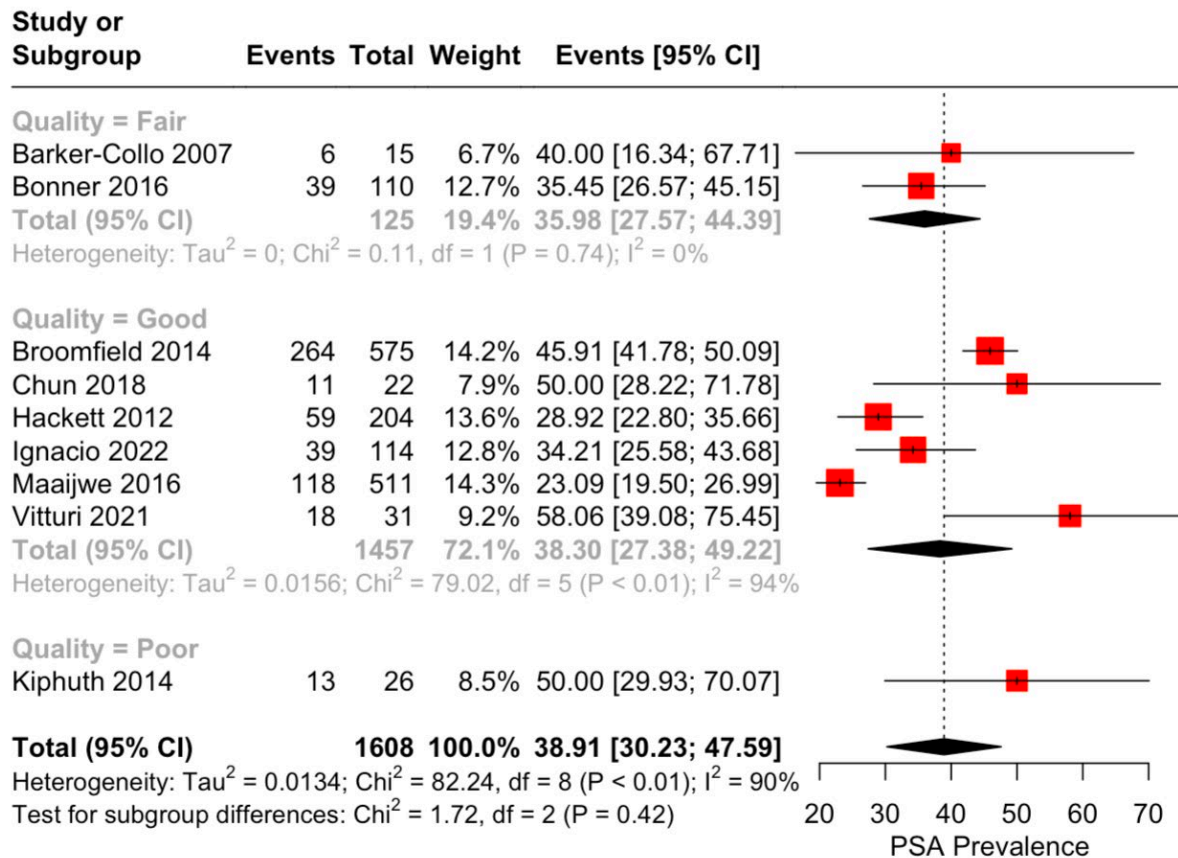
Supplementary Figure 3. Pooled prevalence of PSD in young adults grouped by study quality



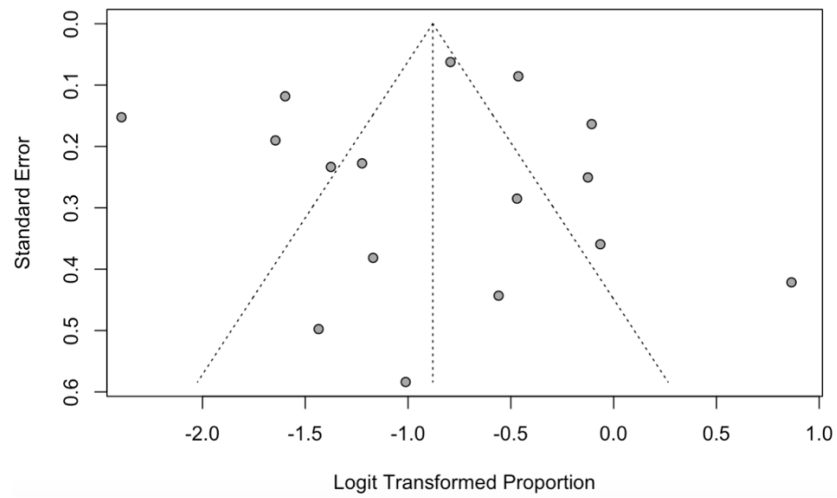
Supplementary Figure 4. Pooled prevalence of PSA in young adults grouped by method of evaluation



Supplementary Figure 5. Pooled prevalence of PSA in young adults grouped by study setting

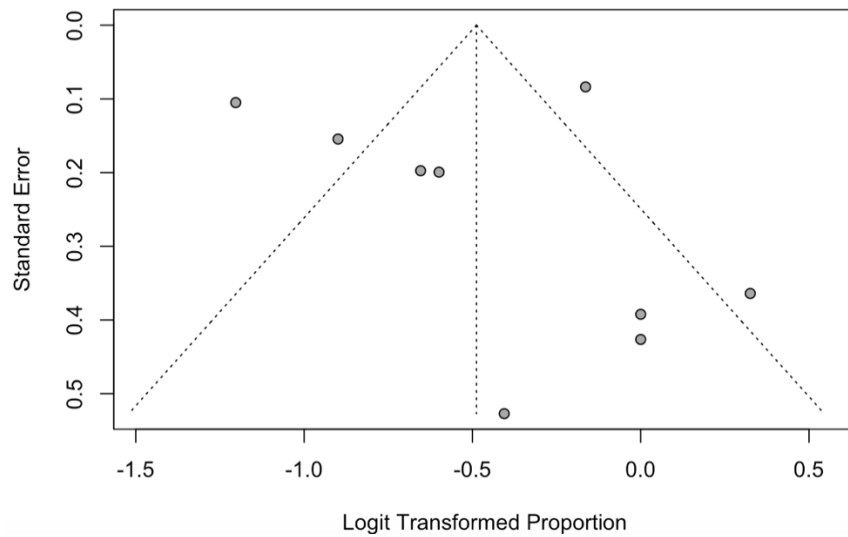


Supplementary Figure 6. Pooled prevalence of PSA in young adults grouped by study quality



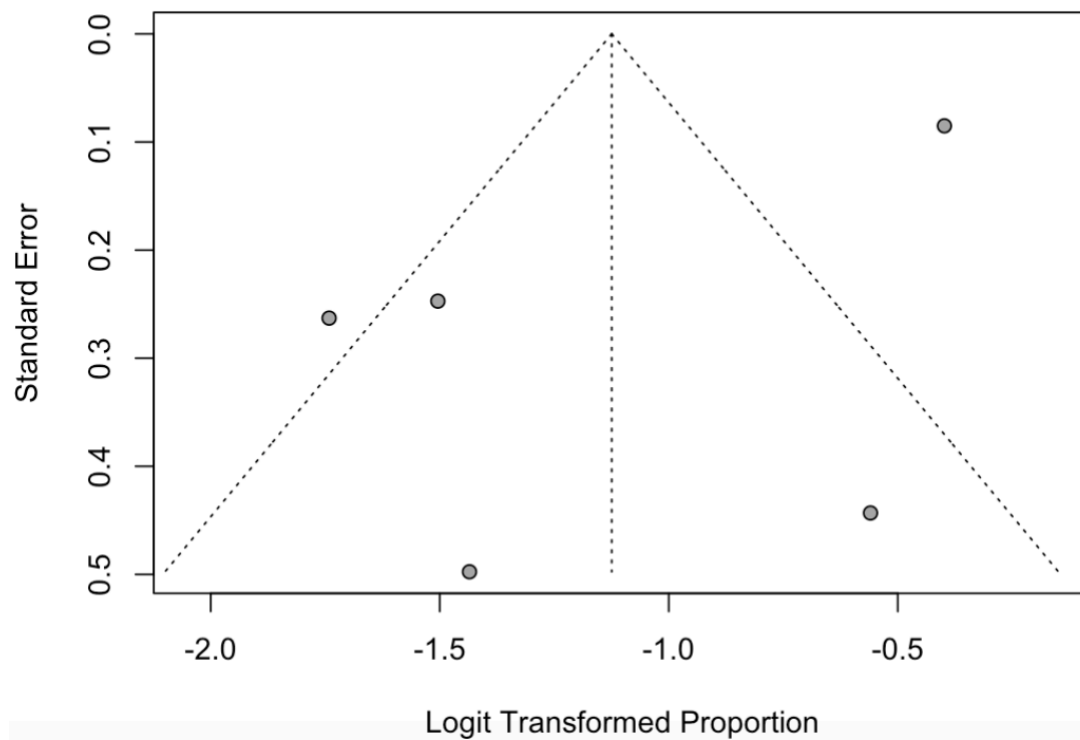
Egger's test result: $t = -0.13$, $df = 14$, $p\text{-value} = 0.8972$

Supplementary Figure 7. Funnel Plot for PSD Studies



Egger's t result: $t = 0.38$, $df = 7$, $p\text{-value} = 0.7157$

Supplementary Figure 8. Funnel Plot for PSA Studies



Egger's test result: $t = -1.92$, $df = 3$, $p\text{-value} = 0.1513$

Supplementary Figure 9. Funnel plot for comorbid PSD and PSA

Supplementary Tables

Supplementary Table 1. Detailed Search Strategy

Embase <1974 to 2023 June 06>		
1	exp stroke/	309737
2	stroke.tw,kf.	504444
3	exp Ischemic Attack, Transient/	46801
4	(transient ischemic attack or TIA).tw,kf.	33345
5	((cerebr* or brain* or cerebrovascular*) adj2 (infarct* or ischemi* or ischaemi* or thrombo* or emboli* or apoplex*)).tw,kf.	132516
6	((cereb* or brain* or intracereb* or intracrani* or subarachnoid) adj2 (haemorrhag* or hemorrhag* or bleed*)).tw,kf.	112335
7	1 or 2 or 3 or 4 or 5 or 6	745543
8	exp depression/	612965
9	depressi*.tw,kf.	673456
10	exp anxiety/	288494
11	exp anxiety disorder/	316219
12	anxiet*.tw,kf.	378221
13	mood disorder*.tw,kf.	35337
14	exp mood disorders/	662288
15	(affective disorder* or apath* or emotion* or melanchol*).tw,kf.	383870
16	8 or 9 or 10 or 11 or 12 or 13 or 14 or 15	1488895
17	7 and 16	34447
18	(young* adult* or early adult* or young* population* or young* age or (young* adj2 stroke*)).tw,kf.	289149
19	17 and 18	773
20	limit 19 to (human and english language)	707
21	limit 20 to (editorial or erratum or letter or note or "preprint (unpublished, non-peer reviewed)" or short survey or tombstone)	6
22	20 not 21	701

Ovid MEDLINE(R) ALL <1946 to June 06, 2023>

1 exp stroke/ 171573
2 stroke.tw,kf. 307337
3 exp Ischemic Attack, Transient/ 21840
4 (transient ischemic attack or TIA).tw,kf. 16988
5 ((cerebr* or brain* or cerebrovascular*) adj2 (infarct* or ischemi* or ischaemi* or thrombo* or emboli* or apoplex*)).tw,kf. 92565
6 ((cereb* or brain* or intracereb* or intracrani* or subarachnoid) adj2 (haemorrhag* or hemorrhag* or bleed*)).tw,kf. 76239
7 1 or 2 or 3 or 4 or 5 or 6 454334
8 exp depression/ 149981
9 depressi*.tw,kf. 486122
10 exp anxiety/ 110940
11 exp anxiety disorder/ 90113
12 anxiet*.tw,kf. 263070
13 mood disorder*.tw,kf. 22565
14 exp mood disorders/ 169368
15 (affective disorder* or apath* or emotion* or melanchol*).tw,kf. 288033
16 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 952459
17 7 and 16 15825
18 limit 17 to (english language and humans) 11095
19 (young* adult* or early adult* or young* population* or young* age or (young* adj2 stroke*)).tw,kf. 204424
20 18 and 19 243
21 limit 20 to (address or autobiography or bibliography or biography or case reports or clinical trial, veterinary or clinical trial protocol or comment or congress or dataset or dictionary or directory or duplicate publication or editorial or electronic supplementary materials or "expression of concern" or festschrift or interactive tutorial or interview or lecture or legal case or legislation or letter or news or newspaper article or observational study, veterinary or patient education handout or periodical index or personal narrative or portrait or published erratum or randomized controlled trial, veterinary or retracted

	publication or "retraction of publication" or twin study or video-audio media or webcast)	
	13	
22	20 not 21	230
APA PsycInfo <1806 to May Week 5 2023>		
1	exp Cerebrovascular Accidents/	24396
2	stroke.mp.	40286
3	(transient ischemic attack or TIA).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures, mesh word]	1391
4	((cerebr* or brain* or cerebrovascular*) adj2 (infarct* or ischemi* or ischaemi* or thrombo* or emboli* or apoplex*)).mp.	14714
5	exp Cerebral Ischemia/	5858
6	((cereb* or brain* or intracereb* or intracrani* or subarachnoid) adj2 (haemorrhag* or hemorrhag* or bleed*)).mp.	6396
7	exp Subarachnoid Hemorrhage/ or exp Cerebral Hemorrhage/	2896
8	1 or 2 or 3 or 4 or 5 or 6 or 7	52157
9	exp Recurrent Depression/ or exp "Depression (Emotion)"/ or exp Treatment Resistant Depression/ or exp Major Depression/ or exp Depression Screening/ or exp Atypical Depression/ or exp Reactive Depression/ or exp Endogenous Depression/	183398
10	depression.mp.	383248
11	exp Illness Anxiety Disorder/ or exp Anxiety Screening/ or exp Generalized Anxiety Disorder/ or exp Death Anxiety/ or exp Anxiety Disorders/ or exp Anxiety/ or exp Social Anxiety/ or exp Health Anxiety/	125063
12	anxiety.mp.	284073
13	exp Affective Disorders/	171743
14	exp Apathy/	1729
15	exp Emotions/	459079
16	(mood disorder* or apath* or affective disorder* or emotion* or melanchol*).mp.	538226
17	9 or 10 or 11 or 12 or 13 or 14 or 15 or 16	1067953
18	8 and 17	8017

19	(young* adult* or early adult* or young* population* or young* age or (young* adj2 stroke*)).mp.	235745
20	18 and 19	383
21	limit 20 to (human and english language)	369
22	limit 21 to (abstract collection or bibliography or clarification or "column/opinion" or "comment/reply" or editorial or encyclopedia entry or "erratum/correction" or interview or letter or obituary or poetry or publication information or reprint or retraction or review-media or review-software & other)	6
23	21 not 22	363
SCOPUS		
(TITLE-ABS-KEY (stroke OR (transient AND ischemic AND attack) OR tia) OR TITLE-ABS-KEY ((cerebr* OR brain* OR cerebrovascular*) PRE/2 (infarct* OR ischemi* OR ischaemi* OR thrombo* OR emboli* OR apoplex*)) OR TITLE-ABS-KEY ((cerebr* OR brain* OR intracereb* OR intracrani* OR subarachnoid) PRE/2 (haemorrhag* OR hemorrhag* OR bleed*)) AND TITLE-ABS-KEY ((depressi* OR anxiet* OR emotion* OR apath* OR melanchol*) OR (mood AND disorder*) OR (affective AND disorder*)) AND TITLE-ABS-KEY ((young* AND adult* OR early AND adult* OR young* AND population* OR young* AND age) OR (young* PRE/2 stroke*))) AND (LIMIT-TO (DOCTYPE , "ar")) AND (LIMIT-TO (LANGUAGE , "English")) AND (LIMIT-TO (EXACTKEYWORD , "Human")) AND (EXCLUDE (SUBJAREA , "DENT") OR EXCLUDE (SUBJAREA , "MATH") OR EXCLUDE (SUBJAREA , "MATE") OR EXCLUDE (SUBJAREA , "COMP") OR EXCLUDE (SUBJAREA , "CENG") OR EXCLUDE (SUBJAREA , "AGRI") OR EXCLUDE (SUBJAREA , "ENGI")))		
919		

Supplementary Table 2. Risk of Bias Assessment of Cohort Studies using the Newcastle Ottawa Scale

Quality assessment criteria	Al Qawasmeh 2022	Barker-Collo 2007	Cho 2020	Chun 2018	Hackett 2012	Jani 2014	Kiphuth 2014	McCarthy 2016	Vitturi 2021	Samuelsson 2021
Selection										
Representativeness of cohort: Representative of young adult patient with stroke	*	-	-	*	*	*	-	*	*	-
Ascertainment of Exposure: Stroke diagnosis ascertained by records and/or neuroimaging	*	*	*	*	*	-	*	*	*	*
Demonstrates outcome of interest not present at start of study: Depression/anxiety assessment performed at baseline or excluded patients with depression/anxiety	*	*	*	*	*	-	-	*	*	*
Comparability										
Controls for functional or neurologic status (NIHSS, mRS, BI or neurologic deficits)	*	*	*	*	*	-	*	*	*	*
Controls for other factors: age, sex, comorbidities	*	*	*	*	*	*	*	*	*	*
Outcome										
Assessment of outcome by structured/semi-structured interview or validated screening tool for PSD/PSA	*	*	*	*	*	*	*	*	*	*
Follow-up long enough for outcomes to occur (>2 weeks)	*	*	*	*	*	-	*	*	*	*
Adequacy of Follow Up of Cohorts (follow up rate $\geq 75\%$ or description provided for lost to follow up)	*	-	*	*	-	-	*	*	*	*
Final rating	Good	Mod	Mod	Good	Good	Poor	Poor	Good	Good	Mod

*study met criteria, - study did not meet criteria; Final rating of methodological quality using the NOS:

Good quality: Selection domain: 3; Comparability domain: 1-2 stars; Outcome/Exposure domain: 2-3 stars

Moderate (Mod) quality: Selection domain: 2; Comparability domain: 1-2 stars; Outcome/Exposure domain: 2-3 stars

Poor quality: Selection domain: 0-1 star; Comparability domain: 0 stars; Outcome/Exposure domain: 0-1 star

Supplementary Table 3. Risk of Bias Assessment of Case Control Studies using the Newcastle Ottawa Scale

Quality assessment criteria	Maaijwe 2016	Xu 2021
Selection		
Representativeness of cohort: Representative of young adult patient with stroke	*	*
Selection of the non-exposed cohort: Drawn from same community as exposed cohort	*	*
Ascertainment of Exposure: Stroke diagnosis ascertained by records and/or neuroimaging	*	*
Demonstration that outcome of interest not present at start of study): Depression/anxiety assessment performed at baseline or excluded patients with depression/anxiety	*	-
Comparability		
Controls for functional or neurologic status (NIHSS, mRS, BI or neurologic deficits)	*	*
Controls for other factors: age, sex, comorbidities	*	*
Outcome		
Assessment of outcome by structured/semi-structured interview or validated screening tool for PSD/PSA	*	-
Follow-up long enough for outcomes to occur (>2 weeks)	*	*
Adequacy of Follow Up of Cohorts (follow up rate $\geq 75\%$ or description provided for lost to follow up)	*	*
Final rating	Good	Good

*study met criteria, - study did not meet criteria

Final rating of methodological quality using the Newcastle Ottawa Scale:

Good quality: Selection domain: 3; Comparability domain: 1-2 stars; Outcome/Exposure domain: 2-3 stars

Moderate quality: Selection domain: 2; Comparability domain: 1-2 stars; Outcome/Exposure domain: 2-3 stars

Poor quality: Selection domain: 0-1 star; Comparability domain: 0 stars; Outcome/Exposure domain: 0-1 star

Supplementary Table 4. Risk of Bias Assessment of descriptive cross-sectional studies using the AHRQ Tool

Study	Criteria	Agbola 2020	Bonner 2016	Broomfi eld 2014	Ellis 2012	Ignacio 2022	Noble 2014	Priya 2021	Yoon 2021
Q1 Define the source of information (Survey, record review)	1= from survey 0= not mentioned 0= records/ unclear info	1	1	1	1	1	1	1	1
Q2 List inclusion and exclusion criteria for subjects or refer to previous publications	1= clearly mentioned 0= no information 0= unclear / insufficient info	0	1	0	1	1	1	1	1
Q3 Indicate whether subjects were consecutive if not population based. Whether subjects are representative of the average in the community?	1= representative 0= not representative (convenience/ not randomly selected) 0= no clear info	0	1	1	0	0	1	0	0
Q4 Indicate time period used for identifying subjects	1= time period given 0=no info given	0	1	1	0	1	1	1	1
Q5 Indicate if evaluators of subjective components of study were masked to other aspects of the status of the participants. Are the evaluators professional (trained /calibrated)?	1= evaluator trained/ calibrated 0= not calibrated/ trained 0= unclear /not mentioned	1	0	1	0	1	0	1	1
Q6 Is the examination method standard?	1= exposure & outcome method are standard 0= not done 0= unclear /partially done	1	1	1	0	1	1	1	1
Q7 Describe any assessments undertaken for quality assurance purposes (e.g., test/retest of primary outcome measurements)	1= exposure & outcome tools validated/examiner-kappa-score reported 0= not done 0= unclear /partially done	0	1	1	1	1	0	1	1

Q8 Are the assessments and classifications clearly stated and standard?	1= standard classification for both exposure & outcome 0= did not use standard method 0= unclear/ no information	1	1	1	1	1	1	1	1
Q9 If any, explain any subject exclusions from analysis	1=mentioned clearly 0=not mentioned 0=unclear information	0	0	1	0	1	0	1	0
Q10 Describe how confounding was assessed and/or controlled	1=mentioned (design/analysis) 0=not done 0=unclear /not mentioned	0	0	1	1	0	0	1	1
Q11 Summarize patient response rates and completeness of data collection	1=mentioned & above 80% 0=not mentioned 0=unclear information	0	0	0	0	0	0	1	0
Final rating		4 High	7 Mod	9 Low	5 Mod	8 Low	6 Mod	10 Low	8 Low

High risk of bias with a score of 0-4

Moderate (Mod) risk of bias with a score of 5-7

Low risk of bias with a score of 8-10

Supplementary Table 5. Data Collection Tool

Study ID	
Title	
Authors	
Year of publication	
Study setting (country)	
Hospital or community-based study	
Study design	
Sample size	
Age range of young adults	
Study duration	
Inclusion criteria	
Exclusion criteria	
Method of diagnosis of depression and cut-off for screening tool	
Method of diagnosis of anxiety and cut-off for screening tool	
Stroke type (n)	
Stroke severity (eg. NIHSS)	
Post stroke depression (PSD)	
Total number of patients evaluated	
Mean/median age of patients with PSD	
Time point of evaluation	
Number of patients with PSD	
Number of females with depression	
Number of patients with PSD and TIA	
Number of patients with PSD and infarct	
Number of patients with PSD and ICH	
Post stroke anxiety (PSA)	
Total number of patients evaluated	
Mean/median age of patients with PSA	
Time point of evaluation	
Number of patients with PSA	
Number of females with depression	
Number of patients with PSA and TIA	
Number of patients with PSA and infarct	
Number of patients with PSA and ICH	

Supplementary Table 6. Sensitivity and Specificity of Screening Tools in Evaluating Poststroke Depression and Poststroke Anxiety

Screening Tool and Cut-offs	Sensitivity (95% CI)	Specificity (95% CI)
Screening Tools for Poststroke Depression		
Beck Depression Inventory -II		
>11	0.92 (0.64–1.00) ⁴⁰	0.71 (0.58–0.82) ⁴⁰
>13	0.85 (0.55–0.98) ⁴⁰	0.75 (0.62–0.85) ⁴⁰
Center for Epidemiologic Studies Depression Scale		
>15	0.73 ⁴¹ ; 0.86 ⁴²	1.00 ⁴¹ ; 0.90 ⁴²
Hospital Anxiety and Depression Scale-Depression subscale		
>5	0.92 (0.64–1.00) ⁴⁰	0.68 (0.54–0.79)
>6	0.80 ⁴³ ; 0.73 ⁴⁴	0.79 ⁴³ ; 0.79 ⁴⁴
>7	0.62 (0.32–0.86) ⁴⁰	0.83 (0.71–0.92) ⁴⁰
Patient Health Questionnaire-9		
>6	0.85 (0.55–0.98) ⁴⁰	0.63 (0.49–0.75) ⁴⁰
>8	0.77 (0.46–0.95) ⁴⁰	0.75 (0.62–0.85) ⁴⁰
>9	0.69 (0.39–0.91) ⁴⁰	0.78 (0.65–0.88) ⁴⁰
Symptom Checklist-90		
>25	0.88 ⁴⁴	0.60 ⁴⁴
SGDS		
>4	0.74 ^{6†}	0.71 ^{6†}
Screening Tools for Poststroke Anxiety		
Beck Anxiety Inventory		
>3.5	0.84 ^{7†}	0.65 ^{7†}
>4.5	0.79 ^{7†}	0.66 ^{7†}
>5.5	0.76 ^{7†}	0.77 ^{7†}
Hospital Anxiety and Depression Scale–Anxiety subscale		
>4	0.89 ⁵	0.72 ⁵

[†]in general population

Supplementary Table 7. PRISMA Main Checklist

Topic	No.	Item	Location where item is reported
TITLE			
Title	1	Identify the report as a systematic review.	Title
ABSTRACT			
Abstract	2	See the PRISMA 2020 for Abstracts checklist	
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	Background
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	Objectives
METHODS			
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	Methods
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.	Methods
Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	Methods
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.	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.	Methods

Topic	No.	Item	Location where item is reported
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.	Methods
	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.	Methods
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.	Methods
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.	Methods
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)).	Methods
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	Methods
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	Methods
	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.	Methods
	13e	Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression).	Methods
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesized results.	Methods
Reporting bias assessment	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).	Methods, Supplement

Topic	No.	Item	Location where item is reported
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	Methods
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.	Results, PRISMA Diagram
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	Results, PRISMA Diagram, Supplement
Study characteristics	17	Cite each included study and present its characteristics.	Results, Table 1
Risk of bias in studies	18	Present assessments of risk of bias for each included study.	Results, Supplement
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.	Results, Table 2
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.	Results, Figures
	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.	Results, Figures
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	Results, Figures, Supplement
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.	Results, Figures, Supplement
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	Results, Supplement

Topic	No.	Item	Location where item is reported
Certainty of evidence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	Results, Supplement
DISCUSSION			
Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	Discussion
	23b	Discuss any limitations of the evidence included in the review.	Discussion
	23c	Discuss any limitations of the review processes used.	Discussion
	23d	Discuss implications of the results for practice, policy, and future research.	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.	Methods
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	Methods
	24c	Describe and explain any amendments to information provided at registration or in the protocol.	NA
Support	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	Disclosures
Competing interests	26	Declare any competing interests of review authors.	Disclosures
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.	Methods

Supplementary Table 8. PRISMA Abstract Checklist

Topic	No.	Item	Reported?
TITLE			
Title	1	Identify the report as a systematic review.	Yes
BACKGROUND			
Objectives	2	Provide an explicit statement of the main objective(s) or question(s) the review addresses.	Yes
METHODS			
Eligibility criteria	3	Specify the inclusion and exclusion criteria for the review.	Yes
Information sources	4	Specify the information sources (e.g. databases, registers) used to identify studies and the date when each was last searched.	Yes
Risk of bias	5	Specify the methods used to assess risk of bias in the included studies.	Yes
Synthesis of results	6	Specify the methods used to present and synthesize results.	Yes
RESULTS			
Included studies	7	Give the total number of included studies and participants and summarise relevant characteristics of studies.	Yes
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).	Yes
DISCUSSION			

Topic	No.	Item	Reported?
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).	Yes
Interpretation	10	Provide a general interpretation of the results and important implications.	Yes
OTHER			
Funding	11	Specify the primary source of funding for the review.	No
Registration	12	Provide the register name and registration number.	No

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