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DATA SUPPLEMENT

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

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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

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Study or Subgroup	Events	Total	Weight	Events [95% CI]	
Tool = Interview					
Agbola 2020	19	27	5.2%	70.37 [49.82; 86.25]	
Chun 2018	8	22	4.7%	36.36 [17.20; 59.34]	
Total (95% CI)		49	9.9%	53.78 [20.46; 87.09]	
Heterogeneity: Tau ² =	0.0487; ($Chi^2 = 6$	6.34, df =	1 (P = 0.01); $I^2 = 84\%$	
Tool = Tool					
Al Qawasmeh 2022	9	38	5.9%	23.68 [11.44; 40.24]	
Barker-Collo 2007	4	15	4.3%	26.67 [7.79; 55.10]	
Bonner 2016	25	110		22.73 [15.28; 31.70]	— <mark>—</mark>
Broomfield 2014	222			38.61 [34.61; 42.73]	
Cho 2020	20			38.46 [25.30; 52.98]	
Ellis 2012		1198		31.14 [28.52; 33.84]	
Hacket 2012	33			16.18 [11.40; 21.96]	- <mark></mark>
Ignacio 2022	23			20.18 [13.24; 28.72]	
Jani 2014	47			8.36 [6.21; 10.97]	-
Kiphuth 2014	5			19.23 [6.55; 39.35] -	
Maaijwe 2016	86			16.83 [13.69; 20.36]	—
McCarthy 2016	30			46.88 [34.28; 59.77]	
Priya 2021	71			47.33 [39.13; 55.64]	— <u>—</u>
Vitturi 2021	15			48.39 [30.15; 66.94]	
Total (95% CI)		3650		28.33 [20.96; 35.70]	
Heterogeneity: Tau ² =	0.0170; ($Chi^2 = 3$	334.23, df	$I = 13 (P < 0.01); I^2 = 96\%$	D
Total (95% CI)				30.94 [23.71; 38.18]	
				ⁱ = 15 (P < 0.01); I ² = 96%	
Test for subgroup diffe	erences: ($Chi^2 = 2$	2.14, df =	1 (P = 0.14)	20 40 60 80
					PSD Prevalence

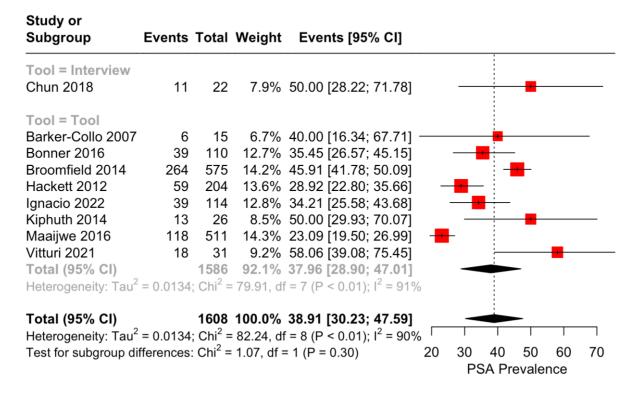
Supplementary Figure 1. Pooled prevalence of PSD in young adults grouped by method of evaluation

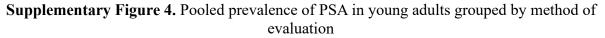
Study or Subgroup	Events	Total	Weight	Events [95% CI]	
Setting = Hospital					
Agbola 2020	19	27	5.2%	70.37 [49.82; 86.25]	_
Al Qawasmeh 2022	9	38	5.9%	23.68 [11.44; 40.24]	— <mark></mark>
Barker-Collo 2007	4	15	4.3%	26.67 [7.79; 55.10] -	
Bonner 2016	25	110	6.8%	22.73 [15.28; 31.70]	
Cho 2020	20	52	5.9%	38.46 [25.30; 52.98]	——————————————————————————————————————
Chun 2018	8	22	4.7%	36.36 [17.20; 59.34]	
Hacket 2012	33	204	7.2%	16.18 [11.40; 21.96]	
Ignacio 2022	23	114	6.9%	20.18 [13.24; 28.72]	
Kiphuth 2014	5	26	5.6%	19.23 [6.55; 39.35] —	— <mark>—</mark>
Maaijwe 2016	86	511		16.83 [13.69; 20.36]	<mark>₩</mark>
McCarthy 2016	30	64		46.88 [34.28; 59.77]	
Priya 2021	71	150	6.8%	47.33 [39.13; 55.64]	
Vitturi 2021	15			48.39 [30.15; 66.94]	÷
Total (95% CI)		1364		32.24 [24.42; 40.07]	
Heterogeneity: Tau ² =	0.0164;	Chi ² = 1	116.11, df	= 12 (P < 0.01); $I^2 = 90\%$	
Setting = Commun	ity				
Broomfield 2014	222	575	7.3%	38.61 [34.61; 42.73]	
Ellis 2012	373	1198	7.4%	31.14 [28.52; 33.84]	
Jani 2014	47	562	7.4%	8.36 [6.21; 10.97] 🛛 🛨	
Total (95% CI)		2335		25.99 [7.57; 44.41] -	
Heterogeneity: Tau ² =	0.0263;	$Chi^2 = 2$	249.43, df	= 2 (P < 0.01); I ² = 99%	
		2000	400.004	20.04.022.74, 20.401	
Total (95% CI)	0.0184			30.94 [23.71; 38.18] = 15 (P < 0.01); I ² = 96%	
Test for subgroup diffe					20 40 60 80
rescion subgroup diffe	ences.	- U		r (r = 0.04)	PSD Prevalence

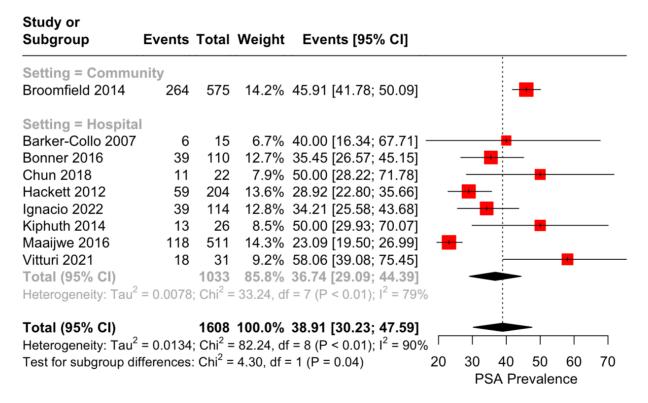
Supplementary Figure 2. Pooled prevalence of PSD in young adults grouped by study setting

Study or					
Subgroup	Events	Total	Weight	Events [95% CI]	
Quality = Poor					
Agbola 2020	19	27	5.2%	70.37 [49.82; 86.25]	<mark></mark>
Jani 2014	47	562	7.4%	8.36 [6.21; 10.97]	
Kiphuth 2014	5	26	5.6%	19.23 [6.55; 39.35]	
Total (95% CI)		615		31.87 [0.00; 65.56] -	
Heterogeneity: Tau ² =	= 0.0841;	Chi ² = {	50.49, df =	= 2 (P < 0.01); I ² = 96%	
Quality = Good					
Al Qawasmeh 2022	9	38	5.9%	23.68 [11.44; 40.24]	
Broomfield 2014	222			38.61 [34.61; 42.73]	
Chun 2018	8			36.36 [17.20; 59.34]	
Hacket 2012	33	204		16.18 [11.40; 21.96]	
Ignacio 2022	23			20.18 [13.24; 28.72]	
Maaijwe 2016	86			16.83 [13.69; 20.36]	
McCarthy 2016	30			46.88 [34.28; 59.77]	
Priya 2021	71			47.33 [39.13; 55.64]	
Vitturi 2021	15			48.39 [30.15; 66.94]	
Total (95% CI)		1709		31.85 [22.57; 41.13]	
Heterogeneity: Tau ² =	= 0.0172;	Chi ² = 1	132.12, df	$I = 8 (P < 0.01); I^2 = 94\%$	
Quality = Fair			4.00/		
Barker-Collo 2007	4			26.67 [7.79; 55.10]	
Bonner 2016	25			22.73 [15.28; 31.70]	
Cho 2020	20			38.46 [25.30; 52.98]	
Ellis 2012	373	1198		31.14 [28.52; 33.84]	
Total (95% Cl)	0.0045	1375		29.56 [23.75; 35.37]	-
Heterogeneity: lau ² =	= 0.0015;	Chi ⁻ = (5.51, dî =	3 (P = 0.14); $I^2 = 46\%$	
Total (95% CI)		3699	100.0%	30.94 [23.71; 38.18]	-
	= 0.0184;			= 15 (P < 0.01); I ² = 96%	
Test for subgroup diffe	erences:	$Chi^2 = 0$).18, df =	2 (P = 0.92) 0	
				- •	PSD Prevalence

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



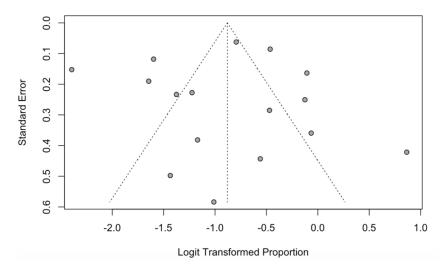




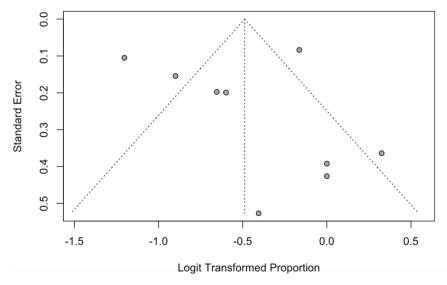
Supplementary Figure 5. Pooled prevalence of PSA in young adults grouped by study setting

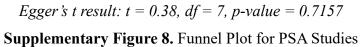
Study or Subgroup	Events	Total	Weight	Events [95% CI]						
Quality = Fair Barker-Collo 2007	6	15	6.7%	40.00 [16.34; 67.71]						
Bonner 2016		110		35.45 [26.57; 45.15]		-	-	-		
Total (95% CI)				35.98 [27.57; 44.39]			-			
Heterogeneity: Tau ²	= 0; Chi ²	= 0.11	, df = 1 (P	$= 0.74$); $I^2 = 0\%$						
							÷			
Quality = Good	264	676	14 20/	45 01 [41 79, 50 00]						
Broomfield 2014 Chun 2018	264 11			45.91 [41.78; 50.09] 50.00 [28.22; 71.78]						
Hackett 2012	59			28.92 [22.80; 35.66]	_	-		-		
Ignacio 2022	39			34.21 [25.58; 43.68]						
Maaijwe 2016		511		23.09 [19.50; 26.99]	-	_				
Vitturi 2021	18			58.06 [39.08; 75.45]					-	
Total (95% CI)				38.30 [27.38; 49.22]		-			_	
	= 0.0156			$f = 5 (P < 0.01); I^2 = 940$	6					
Quality = Poor			1024 (M22027)					_		
Kiphuth 2014	13	26	8.5%	50.00 [29.93; 70.07]						_
Total (95% CI)		1608	100.0%	38.91 [30.23; 47.59]				-		
	= 0 0134			$f = 8 (P < 0.01); I^2 = 90$					1	
Test for subgroup di					20	30	40	50	60	70
			<u>-</u> , ar	- (SA Pr			• •

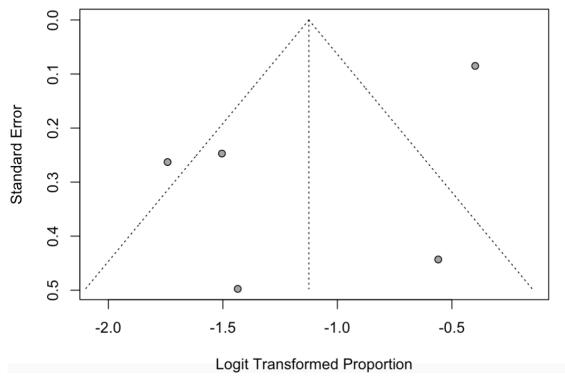
Supplementary Figure 6. Pooled prevalence of PSA in young adults grouped by study quality

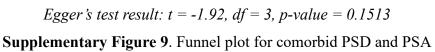


Egger's test result: t = -0.13, df = 14, *p-value* = 0.8972 **Supplementary Figure 7.** Funnel Plot for PSD Studies









Supplementary Tables Supplementary Table 1. Detailed Search Strategy Embase <1974 to 2023 June 06>

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> exp Cerebrovascular Accidents/ 24396 1 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 ((cerebr* or brain* or cerebrovascular*) adj2 (infarct* or ischemi* or ischaemi* or 4 thrombo* or emboli* or apoplex*)).mp. 14714 5 exp Cerebral Ischemia/ 5858 ((cereb* or brain* or intracereb* or intracrani* or subarachnoid) adj2 (haemorrhag* 6 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 exp Affective Disorders/ 13 171743 14 exp Apathy/ 1729 15 exp Emotions/ 459079 (mood disorder* or apath* or affective disorder* or emotion* or melanchol*).mp. 16 538226 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 17 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 reviewmedia 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 ((cereb* 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, "AGRI") 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	Barker-	Cho	Chun	Hackett	Jani	Kiphut	McCarth	Vitturi	Samuelss
	Qawasmeh	Collo	2020	2018	2012	2014	h 2014	y 2016	2021	on 2021
	2022	2007								
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,	*	*	*	*	*	*	*	*	*	*
comorbids										
Outcome						1				
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	Xu 2021
	2016	
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, comorbids	*	*
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	Bonner	Broomfi	Ellis	Ignacio	Noble	Priya	Yoon
		2020	2016	eld	2012	2022	2014	2021	2021
				2014					
Q1 Define the source of	1= from survey								
information	0= not mentioned								
(Survey, record review)	0= records/ unclear info	1	1	1	1	1	1	1	1
Q2 List inclusion and exclusion	1= clearly mentioned								
criteria for subjects or refer to	0= no information								
previous publications	0= unclear / insufficient info	0	1	0	1	1	1	1	1
Q3 Indicate whether subjects were	1= representative								
consecutive if not population	0= not representative								
based. Whether subjects are	(convenience/ not randomly								
representative of the average in	selected)								
the community?	0= no clear info	0	1	1	0	0	1	0	0
Q4 Indicate time period used for	1= time period given								
identifying subjects	0=no info given	0	1	1	0	1	1	1	1
Q5 Indicate if evaluators of	1= evaluator trained/ calibrated								
subjective components of study	0= not calibrated/ trained								
were masked to other aspects of	0= unclear /not mentioned								
the status of the participants. Are									
the evaluators professional									
(trained /calibrated)?		1	0	1	0	1	0	1	1
Q6 Is the examination method	1= exposure & outcome								
standard?	method are standard								
	0= not done								
	0= unclear /partially done	1	1	1	0	1	1	1	1
Q7 Describe any assessments	1= exposure & outcome tools								
undertaken for quality assurance	validated/examiner-kappa-								
purposes (e.g., test/retest of	score reported)								
primary outcome measurements)	0= not done								
	0= unclear /partially done	0	1	1	1	1	0	1	1

Q8 Are the assessments and	1= standard classification for								
classifications clearly stated and	both exposure & outcome								
standard?	0= did not use standard								
	method								
	0= unclear/ no information	1	1	1	1	1	1	1	1
Q9 If any, explain any subject	1=mentioned clearly								
exclusions from analysis	0=not mentioned								
	0=unclear information	0	0	1	0	1	0	1	0
Q10 Describe how confounding	1=mentioned (design/analysis)								
was assessed and/or controlled	0=not done								
	0=unclear /not mentioned	0	0	1	1	0	0	1	1
Q11 Summarize patient response	1=mentioned & above 80%								
rates and completeness of data	0=not mentioned								
collection	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 $\ensuremath{\mathsf{5-7}}$

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 Stud	ies Depression Scale	
>15	$0.73^{41}; 0.86^{42}$	$1.00^{41}; 0.90^{42}$
Hospital Anxiety and Depressi		
>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	0.8844	0.60 ⁴⁴
SGDS		
>4	0.74 ^{6†}	0.71 ^{6†}
Screening Tools for Poststroke	e Anxiety	
Beck Anxiety Inventory		
>3.5	$0.84^{7\dagger}$	0.65 ^{7†}
>4.5	0.79 ^{7†}	0.66 ^{7†}
>5.5	0.76 ^{7†}	0.77 ^{7†}
Hospital Anxiety and Depress		
>4	0.895	0.72 ⁵

[†]in general population

Supplementary Table 7. PRISMA Main Checklist

Торіс	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

Торіс	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.	Methds
	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

Торіс	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

Торіс	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

Торіс	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			

Торіс	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

From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. MetaArXiv. 2020, September 14. DOI: 10.31222/osf.io/v7gm2. For more information, visit: <u>www.prismastatement.org</u>