

Supplemental Online Content

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This supplemental material has been provided by the authors to give readers additional information about their work.

eTable 1. Example Search Strategy from Medline.

Ovid MEDLINE(R) and Epub Ahead of Print, In-Process & Other Non-Indexed Citations and Daily <1946 to February 15, 2021>

#	Searches	
1	Mental Health/	
2	mental disorders/ or exp anxiety disorders/ or exp mood disorders/ or neurotic disorders/ or exp "trauma and stressor related disorders"/	
3	child reactive disorders/ or depression/ or obsessive behavior/ or stress, psychological/ or burnout, psychological/ or anxiety/ or catastrophization/ or psychological distress/ or exp Self-Injurious Behavior/	
4	((mental* or psychiatric or psychologic* or behavior* or behaviour* or mood* or panic* or affective or emotion* or neurotic or psychoneurotic or psycho-neurotic or adjustment or reactive) adj2 (health* or ill* or well* or disease* or disorder* or syndrome* or hygiene or symptom* or disturbance* or dysfunction* or attack* or trauma* or condition* or state* or status*)).tw,kf.	
5	(anxiet* or depress* or stress* or distress* or PTSD or posttraumatic or post traumatic or nervous* or neuroses or neurosis or catastroph* or psychoneuroses or psycho-neuroses or phobi* or cyclothymi* or melanchol* or trauma* or obsess* or OCD or dysthymi* or dysphori* or astheni* or psychastheni* or alexithymi* or hysteri* or psychotrauma or burnout or burn-out or cothymi* or self-harm or suicid* or parasuicid* or self-injur* or self-mutilat* or self-destructive behavior?r*).tw,kf.	
6	1 or 2 or 3 or 4 or 5	
7	exp Coronaviridae Infections/	
8	exp Coronavirus/	
9	(2019-ncov* or 2019ncov* or 2019n-cov* or coronaviru* or corona viru* or covid or covid-19 or covid19* or ncov* or novel cov* or ncov* or covid-2019 or covid2019 or SARS-COV-2* or SARS-COV2* or SARSCOV-2* or SARSCOV2* or SARSCOV19 or SARSCOV-19 or SARSCOV-19 or SARS-COV-2019 or SARSCOV2019 or SARSCOV-2019 or Wuhan pneumonia or Wuhan virus or severe acute respiratory syndrome or severe acute respiratory disease).tw,kf.	
10	7 or 8 or 9	
11	6 and 10	
12	limit 11 to "all child (0 to 18 years)"	
13	exp Child/ or exp infant/ or adolescent/ or exp pediatrics/ or child, abandoned/ or exp child, exceptional/ or child, orphaned/ or child, unwanted/ or minors/ or (pediatric* or paediatric* or child* or newborn* or congenital* or infan* or baby or babies or neonat* or pre- term or preterm* or premature birth* or NICU or preschool* or pre-school* or kindergarten* or kindergarden* or elementary school* or nursery school* or (day care* not adult*) or schoolchild* or toddler* or boy or boys or girl* or middle school* or pubescen* or juvenile* or teen* or youth* or high school* or adolesc* or pre-pubesc* or prepubesc*).mp.	

	or (child* or adolesc* or pediat* or paediat*).jn.	
14	6 and 10 and 13	
15	12 or 14	
16	limit 15 to dt=20200101-20210228	

Note. *Indicates that words were truncated in order to instruct the database to capture all variant endings and spellings of the search terms.

eTable 2. Study Quality Evaluation Criteria.¹

Quality 1:Valid Measure	Are the depression/anxiety measures validated questionnaires? 0-no 1-yes
Quality 2:Peer reviewed	Was the study peer reviewed? 0-no 1-yes
Quality 3:50% participation	Did at least 50% of the eligible population participate? 0-no 1-yes
Quality 4: Objective outcome	Were the measures of mental health objective (e.g. a diagnosis) as opposed to self-report 0-self-report 1-objective
Quality 5: Exposure time	Did enough time elapse since COVID for there to be an impact on mental health? 0-no 1-yes

¹ Adapted from the NIH Quality Assessment Tool for Observational Cohort and Cross-Sectional Studies to evaluate any bias in the study or measurements. This measure is available at <https://www.nhlbi.nih.gov/health-topics/study-quality-assessment-tools>

eTable 3. Quality Assessment of Studies Included.

First Author, Year	Valid Measure	Peer Reviewed	50% Participation	Objective Outcome	Exposure Time	Total Score (0-5)
AlAzzam 2021	1	1	0	0	0	2
Asanov 2021	1	1	0	0	1	3
Cao 2021	1	1	0	0	1	3
Cheah 2020	1	1	0	0	1	3
Chen 2020a	1	1	0	0	1	3
Chen 2020b	1	1	0	0	1	3
Chi 2020	1	1	0	0	1	3
Crescentini 2020	1	1	0	0	1	3
Dong 2020	1	1	0	0	1	3
Duan 2020	1	1	0	0	1	3
Garcia de Avila 2020	1	1	0	0	1	3
Giannopoulou 2021	1	1	0	0	1	3
Glynn 2021	1	1	1	0	1	4
Hou 2020	1	1	0	0	0	2
Li 2021	1	1	0	0	1	3
Luthar 2020	1	1	1	0	0	3
McGuine 2020	1	1	0	0	1	3
MacTavish 2021	1	1	1	0	1	4
Murata 2020	1	1	0	0	1	3
Orgiles 2021	1	1	0	0	1	3
Ravens-Sieberer 2021	1	1	0	0	1	3
Tang 2021	1	1	1	0	1	4
Xie 2020	1	1	0	0	1	3
Yue 2020	1	1	1	0	1	4
Zhang 2020a	1	1	0	0	1	3
Zhang 2020b	1	1	1	0	1	4
Zhang 2020c	1	1	0	0	1	3

Zhou 2020a	1	1	0	0	1	3
Zhou 2020b	1	1	0	0	1	3

eTable 4. Sensitivity analysis excluding low quality studies (score=2) for moderators of the prevalence of clinically elevated depressive symptoms in children and adolescence during COVID-19.

Categorical Moderators	k	Prevalence	95% CI	Homogeneity Q	p
Symptom reporter				.208	.648
Self-report	21	.236 ^{***}	.194, .285		
Parent report	3	.268 ^{**}	.157, .417		
Geographical Region				3.076	.22
East Asia	15	.216 ^{***}	.167, .274		
North America	5	.284 ^{**}	.185, .408		
Europe	3	.338	.200, .510		
Continuous Moderators	k	Estimate	95% CI	Z	p
Participant Age	24	.06	-.02, .13	1.47	.140
Participant Sex	24	.03	.01, .05	2.99	.003
Month of data collection in 2020	23	.26	.06, .46	2.54	.01

Note. k=number of studies; CI = confidence interval. * $p < .05$; ** $p < .01$; *** $p < .001$

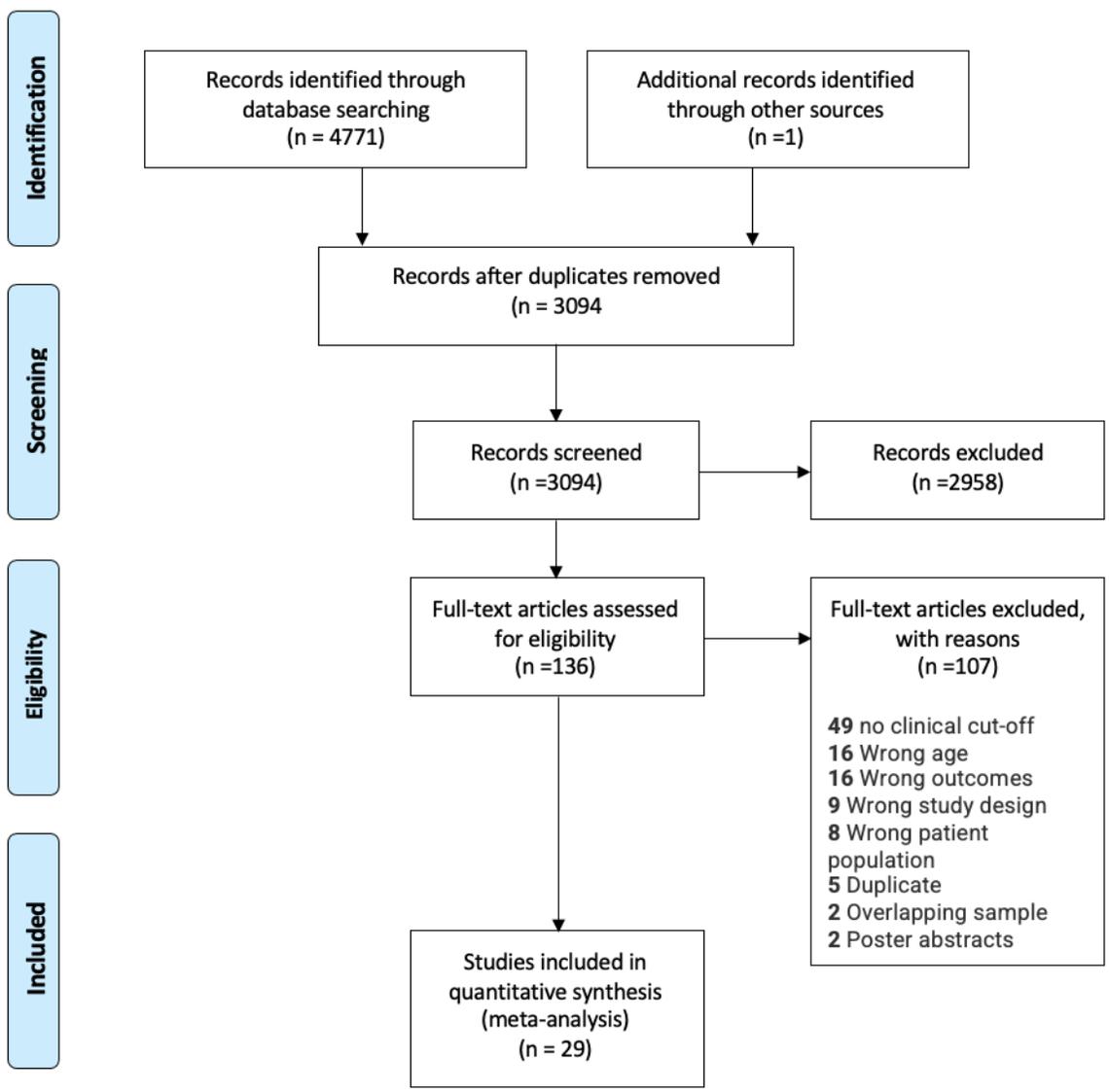
eTable 5. Sensitivity analysis excluding low quality studies (score=2) for moderators of the prevalence of clinically elevated anxiety symptoms in children and adolescence during COVID-19.

Categorical Moderators^a	k	Prevalence	95% CI	Homogeneity Q	p
Geographical Region				10.771	.01
East Asia	13	.159***	.124, .201		
North America	5	.207***	.139, .296		
Europe	4	.339*	.233, .464		
Continuous Moderators	k	Estimate	95% CI	Z	p
Participant Age	23	.04	-.05, .13	.87	.38
Participant Sex	23	.04	.01, .07	2.94	.003
Month of data collection in 2020	22	.27	.10, .44	3.10	.002

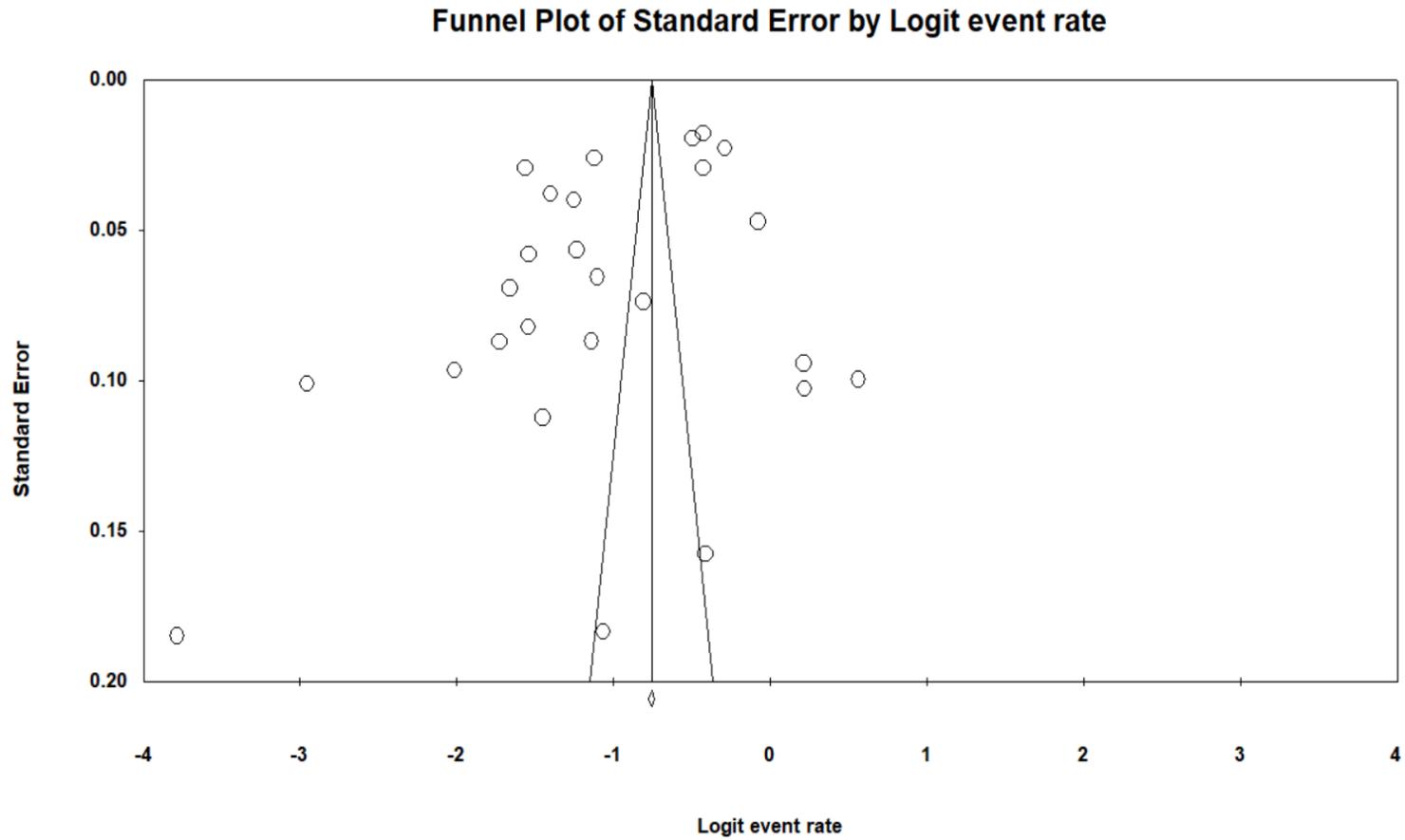
Note. k=number of studies; CI = confidence interval. * $p < .05$; ** $p < .01$; *** $p < .001$

^a Symptom reporter (self-report versus parent-report) could not be examined as there were insufficient studies at each level of the categorical comparison (i.e., two studies had parent report).

eFigure 1. PRISMA diagram of review search strategy.

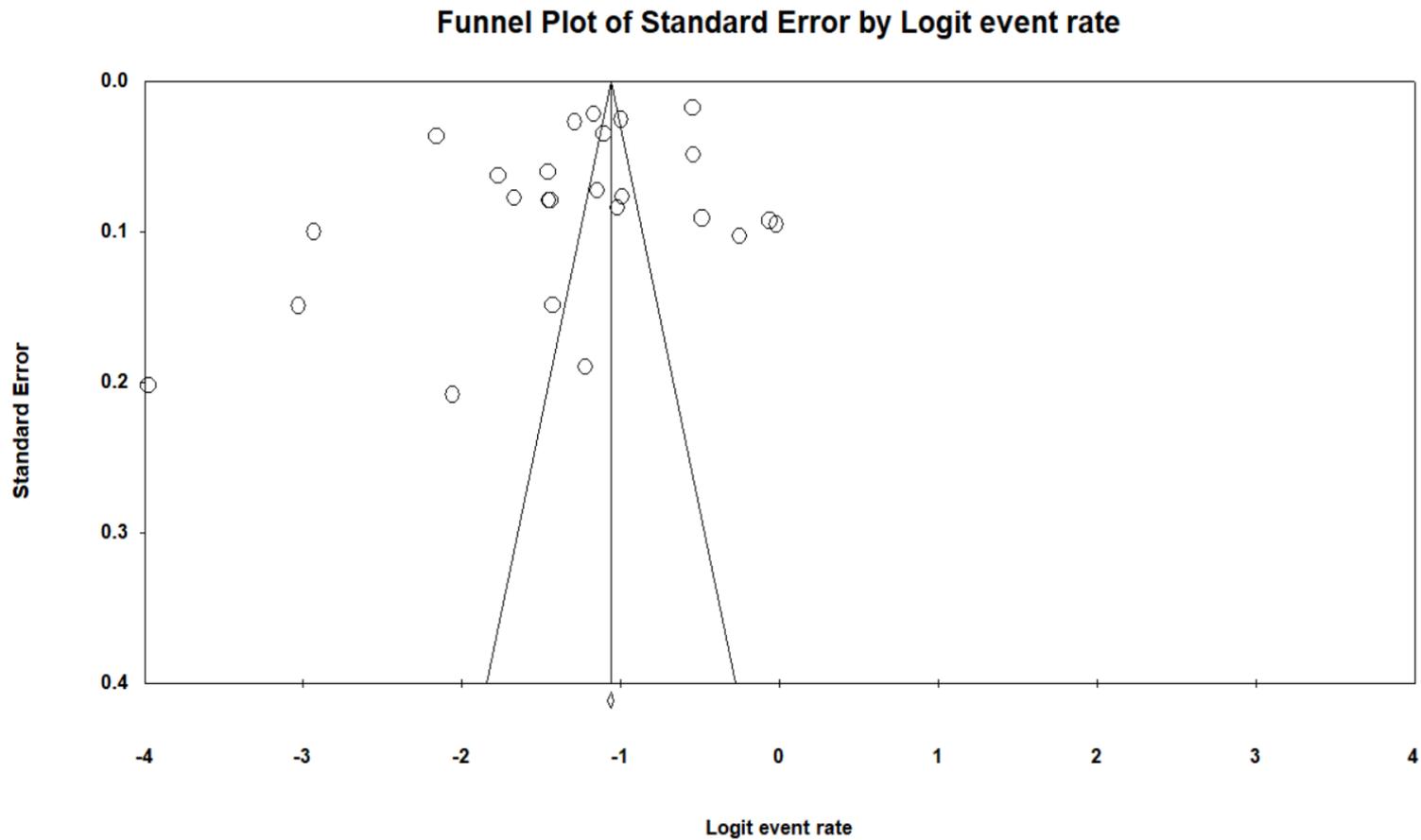


eFigure 2. Funnel plot for studies included in the clinically elevated depressive symptoms.



Note. The x-axis represents the effect size (random effects) and the y-axis represents the standard error. The white circles indicate studies included in the meta-analysis. The white diamond represents the observed mean effect size.

eFigure 3. Funnel plot for studies included in the clinically elevated anxiety symptoms.



Note. The x-axis represents the effect size (random effects) and the y-axis represents the standard error. The white circles indicate studies included in the meta-analysis. The white diamond represents the observed mean effect size.