Prevalence of mental health symptoms in children and adolescents during the COVID-19 pandemic: A meta-analysis

Supplementary Table S10: Risk of bias ratings

Table S10: Risk of bias ratings

Study	Domain A	Domain B	Domain C	Domain D	Domain E	Domain F	Domain G	Domain H	Domain I	Domain J	Overall Rating
Adams et al., 2022	High	High	High	High	Low	Low	Low	Low	Low	Low	Moderate
Adegboye et al., 2022	High	High	High	High	High	Low	Low	Low	Low	Low	High
AlAzzam et al., 2021	Low	High	High	High	Low	Low	Low	Low	Low	Low	Moderate
Albrecht et al., 2022	High	Low	High	Low	Low	Low	Low	Low	Low	Low	Moderate
Alnamnakani et al., 2022	High	Low	High	Low	High	Low	Low	Low	Low	Low	Moderate
Alqassim et al., 2022	High	Low	High	Low	Low	Low	Low	Low	Low	Low	Moderate
Arazi et al., 2022	High	Low	High	Low	High	High	High	Low	High	Low	High
Argiansya et al., 2021	High	Low	Low	Low	Low	High	Low	Low	Low	Low	Moderate
Asanov et al., 2021	High	Low	Low	High	Low	Low	Low	Low	Low	Low	Moderate
Avila et al., 2020	High	Low	High	High	Low	Low	Low	Low	Low	Low	Moderate
Bani-Issa et al., 2022	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Baptista et al., 2020	High	Low	High	Low	High	High	Low	Low	Low	Low	Moderate
Bazett-Jones et al., 2021	Low	High	High	High	Low	High	High	Low	High	Low	High
Becker et al., 2021	Low	Low	Low	High	High	Low	Low	Low	Low	Low	Moderate
Berki et al., 2021	High	Low	High	Low	Low	Low	Low	Low	Low	Low	Moderate
Bhatta et al., 2021	High	High	High	High	Low	Low	Low	Low	Low	Low	Moderate
Black et al., 2021	High	Low	High	Low	Low	Low	Low	Low	Low	Low	Moderate
Büyük et al., 2022	High	High	Low	High	Low	Low	Low	Low	Low	Low	Moderate
Cao et al., 2021	High	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Cao et al., 2022	High	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Castillo-Martínez et al., 2022	High	Low	High	Low	Low	High	Low	Low	Low	Low	Moderate
Cheah et al., 2020	High	High	High	High	Low	Low	Low	Low	Low	Low	Moderate
Chen et al., 2020a	High	Low	High	Low	Low	Low	Low	Low	Low	Low	Moderate
Chen et al., 2020b	High	Low	High	Low	Low	Low	Low	Low	Low	Low	Moderate
Chen et al., 2020c	High	Low	High	Low	Low	High	High	Low	Low	Low	Moderate
Chen et al., 2021	Low	Low	High	Low	Low	Low	Low	Low	Low	Low	Low
Chi et al., 2021	High	Low	Low	High	Low	Low	Low	Low	Low	Low	Moderate
Chi et al., 2022	High	Low	Low	High	Low	Low	Low	Low	Low	Low	Moderate
Choukas-Bradley et al., 2022	High	High	High	High	Low	Low	Low	Low	Low	Low	Moderate
Crescentini et al., 2020	High	Low	High	Low	High	Low	Low	Low	Low	Low	Moderate
Curatola et al., 2022	High	High	High	Low	Low	Low	Low	Low	Low	Low	Moderate
Dai et al., 2020	High	High	High	High	Low	Low	Low	Low	Low	Low	Moderate
Dale et al., 2022	High	Low	High	High	Low	Low	Low	Low	Low	Low	Moderate
Deb et al., 2022	High	High	High	High	Low	Low	Low	Low	Low	Low	Moderate
Denerel et al., 2021	Low	Low	Low	High	Low	Low	Low	Low	Low	Low	Low
Ding et al., 2022	High	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Dong et al., 2020	High	Low	High	Low	Low	Low	Low	Low	Low	Low	Moderate
Dönmez et al., 2021	Low	Low	Low	High	High	Low	Low	Low	Low	Low	Moderate
Duan et al., 2020	Low	Low	High	High	Low	Low	Low	Low	Low	Low	Moderate
El Refay et al., 2021	High	Low	High	High	High	High	High	Low	Low	Low	High
Fidancı et al., 2021	High	High	Low	High	High	Low	Low	Low	Low	Low	Moderate
Fischer et al., 2022	Low	Low	High	High	Low	High	Low	Low	Low	Low	Moderate
Fogarty et al., 2022	High	High	High	Low	Low	Low	Low	Low	Low	Low	Moderate

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Study	1	2	3	4	5	6	7	8	9	10	Overall
Forte et al., 2021	Low	Low	Low	High	Low	High	High	Low	High	Low	Moderate
Ghorbani et al., 2021	High	High	High	Low	Low	High	Low	Low	Low	Low	Moderate
Giannini et al., 2021	High	High	High	Low	High	High	High	Low	High	High	High
Giannopoulou et al., 2021	High	High	High	Low	Low	Low	Low	Low	Low	Low	Moderate
Gladstone et al., 2021	High	Low	Low	High	Low	High	Low	Low	Low	Low	Moderate
Glynn et al., 2021	High	Low	High	Low	High	Low	Low	Low	Low	Low	Moderate
Guo et al., 2020	High	Low	High	Low	Low	Low	Low	Low	Low	Low	Moderate
Håkansson et al., 2022	High	High	High	Low	Low	Low	Low	Low	Low	Low	Moderate
Hamid et al., 2022	High	Low	Low	High	Low	Low	Low	Low	Low	Low	Moderate
Han et al., 2021	Low	Low	Low	Low	Low	High	High	Low	Low	Low	Moderate
He et al., 2020	High	Low	High	Low	Low	High	High	Low	Low	Low	Moderate
He et al., 2021	High	Low	Low	High	Low	Low	Low	Low	Low	Low	Moderate
Hermosillo-de-la-Torre et al., 2021	High	Low	High	High	Low	Low	Low	Low	Low	Low	Moderate
Hertz et al., 2022	Low	Low	Low	Low	Low	High	Low	Low	Low	Low	Moderate
Hou et al., 2020	High	High	Low	High	Low	Low	Low	Low	Low	Low	Moderate
Hou et al., 2021	High	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Humer et al., 2021	Low	High	Low	High	Low	Low	Low	Low	Low	Low	Moderate
Janousch et al., 2022	High	Low	High	High	Low	High	Low	Low	Low	Low	Moderate
Jeelani et al., 2022	High	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Jenabi et al., 2021	High	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Jin et al., 2022	High	High	Low	Low	Low	Low	Low	Low	Low	Low	Moderate
Jung et al., 2022	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Kakaer et al., 2021	High	Low	High	Low	High	High	Low	Low	Low	Low	Moderate
Kaman et al., 2021	High	Low	Low	High	Low	High	Low	Low	Low	Low	Moderate
Kaur Sama et al., 2020	High	Low	High	Low	High	High	High	Low	High	Low	High
Kim et al., 2022a	High	Low	High	Low	Low	Low	Low	Low	Low	Low	Moderate
Kim et al., 2022b	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Koyuncu et al., 2022	High	Low	High	High	High	Low	Low	Low	Low	Low	Moderate
Kuty-Pachecka et al., 2020	High	High	High	Low	Low	Low	Low	Low	Low	Low	Moderate
Lee et al., 2021	High	Low	Low	High	Low	Low	Low	Low	Low	Low	Moderate
Lee et al., 2022a	Low	Low	Low	High	Low	Low	Low	Low	Low	Low	Low
Lee et al., 2022b	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Lee et al., 2022c	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Li et al., 2020	High	Low	High	Low	Low	Low	Low	Low	Low	Low	Moderate
Li et al., 2021a	High	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Li et al., 2021b	High	Low	High	High	Low	High	High	Low	Low	Low	High
Li et al., 2021c	High	Low	High	Low	Low	High	Low	Low	Low	Low	Moderate
Li et al., 2021d	High	Low	High	High	Low	Low	Low	Low	Low	Low	Moderate
Liang et al., 2021	High	Low	High	Low	High	Low	Low	Low	Low	Low	Moderate
Liao & Li, 2021	High	High	High	Low	Low	Low	Low	Low	Low	Low	Moderate
Liao et al., 2022	High	Low	High	Low	High	Low	Low	Low	Low	Low	Moderate
Liu et al., 2020	High	Low	High	Low	Low	Low	Low	Low	Low	Low	Moderate
Liu et al., 2021a	High	Low	Low	High	Low	Low	Low	Low	Low	Low	Moderate
Liu et al., 2021b	High	Low	High	High	Low	Low	Low	Low	Low	Low	Moderate
Liu et al., 2022a	Low	Low	Low	High	Low	Low	Low	Low	Low	Low	Moderate
Liu et al., 2022b	High	Low	High	Low	Low	Low	Low	Low	Low	Low	Moderate

Study											
Lu et al., 2020	High	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Lu et al., 2022	High	Low	High	High	Low	Low	Low	Low	Low	Low	Moderate
Luijten et al., 2021	Low	Low	Low	High	Low	Low	Low	Low	Low	Low	Low
Luthar et al., 2020	High	High	High	Low	Low	Low	Low	Low	Low	Low	Moderate
Ma et al., 2021a	High	Low	High	Low	Low	High	High	Low	High	Low	High
Ma et al., 2021b	High	Low	High	Low	High	Low	Low	Low	Low	Low	Moderate
Mactavish et al., 2021	High	Low	High	High	Low	High	Low	Low	Low	Low	Moderate
Magklara et al., 2022	High	Low	High	High	High	High	High	Low	High	Low	High
Mansfield et al., 2021	Low	Low	Low	High	Low	Low	Low	Low	Low	Low	Low
McArthur et al., 2021	High	High	High	Low	Low	Low	Low	Low	Low	Low	Moderate
McGuine et al., 2021a	High	High	High	High	Low	Low	Low	Low	Low	Low	Moderate
McGuine et al., 2021b	High	High	High	High	Low	Low	Low	Low	Low	Low	Moderate
McGuine et al., 2022a	High	High	High	High	Low	Low	Low	Low	Low	Low	Moderate
McGuine et al., 2022b	High	High	High	High	Low	Low	Low	Low	Low	Low	Moderate
McGuine et al., 2022c	Low	High	High	High	Low	Low	Low	Low	Low	Low	Moderate
Min et al., 2021	High	Low	High	Low	Low	Low	Low	Low	Low	Low	Moderate
Mo et al., 2020	High	Low	High	Low	Low	Low	Low	Low	Low	Low	Moderate
Mohler-Kuo et al., 2021	Low	Low	High	High	Low	Low	Low	Low	Low	Low	Moderate
Moitra et al., 2022	High	Low	High	High	Low	Low	Low	Low	Low	Low	Moderate
Molu et al., 2022	High	Low	Low	High	High	Low	Low	Low	Low	Low	Moderate
Monnier et al., 2021	Low	Low	High	High	High	High	High	Low	Low	Low	High
Murata et al., 2020	Low	Low	High	High	Low	High	Low	Low	Low	Low	Moderate
Nakachi et al., 2021	High	Low	High	High	High	High	High	Low	High	Low	High
O'Kane et al., 2021	High	Low	High	High	Low	Low	Low	Low	Low	Low	Moderate
Oliva et al., 2021	Low	Low	High	High	Low	High	Low	Low	Low	Low	Moderate
Orgilés et al., 2020	Low	Low	High	High	High	Low	Low	Low	Low	Low	Moderate
Ozbaran et al., 2022	High	High	High	High	Low	Low	Low	Low	Low	Low	Moderate
Paiva et al., 2021	High	Low	High	High	High	High	High	Low	High	Low	High
Peng et al., 2022	High	Low	High	High	Low	Low	Low	Low	Low	Low	Moderate
Pieh et al., 2021	Low	Low	Low	High	Low	Low	Low	Low	Low	Low	Low
Pisano et al., 2021	High	High	High	Low	Low	Low	Low	Low	Low	Low	Moderate
Pizarro-Ruiz et al., 2021	Low	Low	Low	High	Low	High	Low	Low	Low	Low	Moderate
Puteikis et al., 2022	High	Low	High	Low	Low	Low	Low	Low	Low	Low	Moderate
Qi et al., 2020a	Low	Low	High	Low	Low	Low	Low	Low	Low	Low	Low
Qi et al., 2020b	High	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Qi et al., 2021	Low	Low	High	Low	Low	Low	Low	Low	Low	Low	Low
Ravens-Sieberer et al., 2021	Low	Low	Low	High	Low	Low	Low	Low	Low	Low	Low
Ren et al., 2021	High	Low	High	Low	Low	Low	Low	Low	Low	Low	Moderate
Rojas et al., 2022	High	Low	High	High	High	Low	Low	Low	Low	Low	Moderate
Sarvari et al., 2022	High	High	High	High	Low	High	Low	Low	Low	Low	High
Selçuk et al., 2021	High	Low	High	High	Low	Low	Low	Low	Low	Low	Moderate
She et al., 2021	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Siachpazidou et al., 2021	Low	Low	High	Low	High	High	High	Low	High	Low	High
Sicouri et al., 2022	High	Low	High	High	High	High	High	Low	Low	Low	High
Sifat et al., 2022	High	Low	High	High	High	High	High	Low	High	Low	High
Silva et al., 2022	High	Low	High	Low	Low	Low	Low	Low	Low	Low	Moderate

Study											
Song, 2020	High	Low	Low	Low	Low	High	Low	Low	Low	Low	Moderate
Spiratos, 2021	High	Low	High	Low	Low	Low	Low	Low	Low	Low	Moderate
Stewart et al., 2022	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Su & Sun, 2020	High	Low	High	Low	Low	Low	Low	Low	Low	Low	Moderate
Tamarit et al., 2020	Low	Low	High	High	Low	Low	Low	Low	Low	Low	Moderate
Tang & Pang, 2020	High	Low	High	High	Low	Low	Low	Low	Low	Low	Moderate
Tang & Ying, 2020	High	Low	High	High	Low	High	Low	Low	Low	Low	Moderate
Tang et al., 2021	High	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Teker et al., 2021	High	Low	Low	High	Low	Low	Low	Low	Low	Low	Moderate
Top et al., 2022	High	Low	High	High	High	Low	Low	Low	Low	Low	Moderate
Türk et al., 2021	High	Low	High	High	Low	High	Low	Low	Low	Low	Moderate
Ursache et al., 2022	High	High	High	Low	High	High	High	Low	Low	Low	High
Vaidya et al., 2022	Low	Low	High	High	Low	Low	Low	Low	Low	Low	Moderate
Valero-Moreno et al., 2022	High	Low	High	High	Low	Low	Low	Low	Low	Low	Moderate
Villanti et al., 2022	High	Low	Low	High	Low	Low	Low	Low	Low	Low	Moderate
Vivechana et al., 2021	High	Low	Low	Low	Low	High	High	Low	High	Low	Moderate
Wang & Sun, 2020	High	Low	Low	High	Low	Low	Low	Low	Low	Low	Moderate
Wang & Xu, 2020	Low	Low	High	Low	Low	Low	Low	Low	Low	Low	Low
Wang et al., 2020a	High	Low	High	Low	Low	Low	Low	Low	Low	Low	Moderate
Wang et al., 2020b	High	Low	High	High	Low	Low	Low	Low	Low	Low	Moderate
Wang et al., 2021a	High	Low	High	Low	High	Low	Low	Low	Low	Low	Moderate
Wang et al., 2021b	High	Low	High	Low	High	High	Low	Low	Low	Low	Moderate
Wang et al., 2022a	High	Low	High	Low	Low	Low	Low	Low	Low	Low	Moderate
Wang et al., 2022b	High	High	High	Low	Low	Low	Low	Low	Low	Low	Moderate
Wearick-Silva et al., 2021	High	Low	High	High	High	Low	Low	Low	Low	Low	Moderate
Wen et al., 2022	High	Low	High	Low	Low	Low	Low	Low	Low	Low	Moderate
Wesley et al., 2022	High	Low	High	High	Low	Low	Low	Low	Low	Low	Moderate
Windiani et al., 2021	High	Low	High	High	Low	Low	Low	Low	Low	Low	Moderate
Xie et al., 2020	High	Low	High	Low	Low	Low	Low	Low	Low	Low	Moderate
Xie et al., 2022	High	Low	High	Low	Low	Low	Low	Low	Low	Low	Moderate
Xu et al., 2021	High	Low	High	High	Low	Low	Low	Low	Low	Low	Moderate
Xu et al., 2022	High	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Xue et al., 2021	High	Low	High	High	Low	Low	Low	Low	Low	Low	Moderate
Yakşi et al., 2021	High	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Yin et al., 2022	High	Low	Low	High	Low	Low	Low	Low	Low	Low	Moderate
Yu et al., 2020	High	Low	Low	High	Low	High	High	Low	Low	Low	Moderate
Yue et al., 2020	High	Low	Low	High	Low	Low	Low	Low	Low	Low	Moderate
Zainel et al., 2021	Low	High	Low	High	Low	High	Low	Low	Low	Low	Moderate
Zhai et al., 2021	High	Low	High	High	Low	Low	Low	Low	Low	Low	Moderate
Zhan et al., 2022	High	Low	High	High	Low	Low	Low	Low	Low	Low	Moderate
Zhang et al., 2020a	High	Low	High	Low	Low	Low	Low	Low	Low	Low	Moderate
Zhang et al., 2020b	High	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Zhang et al., 2020c	High	Low	High	High	Low	Low	Low	Low	Low	Low	Moderate
Zhang et al., 2020d	High	Low	High	Low	Low	Low	Low	Low	Low	Low	Moderate
Zhang et al., 2021	High	Low	Low	High	Low	Low	Low	Low	Low	Low	Moderate
Zhang et al., 2022	High	Low	High	High	Low	Low	Low	Low	Low	Low	Moderate

Zhao et al., 2022	High	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Zhen et al., 2022	High	Low	Low	High	Low	Low	Low	Low	Low	Low	Moderate
Zhong et al., 2021	High	Low	High	High	Low	Low	Low	Low	Low	Low	Moderate
Zhou et al., 2020a	Low	Low	High	Low	Low	Low	Low	Low	Low	Low	Low
Zhou et al., 2020b	Low	Low	High	Low	Low	Low	Low	Low	Low	Low	Low
Zhou et al., 2020c	Low	Low	High	Low	Low	Low	Low	Low	Low	Low	Low
Zhou et al., 2020d	High	Low	High	High	Low	High	High	Low	Low	Low	High
Zhou et al., 2021	High	Low	Low	High	Low	Low	Low	Low	Low	Low	Moderate
Zhu et al., 2020	High	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Zhu et al., 2021	High	Low	Low	High	Low	Low	Low	Low	Low	Low	Moderate

Domain Interpretation[1]

Domain	Risk of Bias Item
Assessment of External Validity	
A	Was the study's target population a close representation of the national population in relation to relevant variables?
B	Was the sampling frame a true or close representation of the target population?
C	Was some form of random selection used to select the sample, OR was a census undertaken?
D	Was the likelihood of nonresponse bias minimal?
Assessment of Internal Validity	
E	Were data collected directly from the subjects (as opposed to a proxy)?
F	Was an acceptable case definition used in the study?
G	Was the study instrument that measured the parameter of interest shown to have validity and reliability?
H	Was the same mode of data collection used for all subjects?
I	Was the length of the shortest prevalence period for the parameter of interest appropriate?
J	Were the numerator(s) and denominator(s) for the parameter of interest appropriate?

Supplementary References

1. Hoy D, Brooks P, Woolf A, et al. Assessing risk of bias in prevalence studies: modification of an existing tool and evidence of interrater agreement. J Clin Epidemiol. 2012;65(9):934-939.