Supplement

Associations of prospective and retrospective measures of child maltreatment with psychopathology: A meta-analysis

Supplementary Table 1. PRISMA checklist 2
Supplementary Table 2. MOOSE checklist 5
Supplementary Table 3. Quality assessment 8
Supplementary Figure 1. PRISMA diagram 10
Supplementary Figure 2. Funnel plots 11
Supplementary Figure 3. Leave-one-out analyses by cohort 12
Supplementary Figure 4. Leave-one-out analyses by study 13

Supplementary Table 1. PRISMA checklist

Section and Topic	Item #	Checklist item	Location where item is reported
TITLE			
Title	1	Identify the report as a systematic review.	1
ABSTRACT			
Abstract	2	See the PRISMA 2020 for Abstracts checklist.	2
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	5
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	5
METHODS			
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	7
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.	6
Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	6
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.	6
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.	7
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.	8
	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.	8
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.	10
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.	9

Section and Topic	Item #	Checklist item	Location where item is reported
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)).	8-9
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	8-9
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	NA
	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.	9
	13e	Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression).	10
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesized results.	10
Reporting bias assessment	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).	10
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	NA
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.	Supp Figure 1
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	NA
Study characteristics	17	Cite each included study and present its characteristics.	Table 1
Risk of bias in studies	18	Present assessments of risk of bias for each included study.	Supp Table 1
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.	Figure 1
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.	11-13
	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.	11-14
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	14
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.	11-13

Section and Topic	Item #	Checklist item	Location where item is reported
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	11-13
Certainty of evidence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	NA
DISCUSSION			
Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	15-16
	23b	Discuss any limitations of the evidence included in the review.	17
	23c	Discuss any limitations of the review processes used.	17
	23d	Discuss implications of the results for practice, policy, and future research.	18
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.	6
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	6
	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.	19
Competing interests	26	Declare any competing interests of review authors.	NA
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.	8

Supplementary Table 2. MOOSE checklist

	Reported on page	Comments
Reporting of background should include		
Problem definition	5	
Hypothesis statement	5	
Description of study outcomes	5	
Type of exposure or intervention used	5	
Type of study designs used	5	
Study population	5	
Reporting of search strategy should include		
Qualifications of searchers (eg librarians and investigators)	6	
Search strategy, including time period used in the synthesis and key words	6	
Effort to include all available studies, including contact with authors	7	
Databases and registries searched	6	
Search software used, name and version, including special features used (eg explosion)	6	
Use of hand searching (eg reference lists of obtained articles)	-	
List of citations located and those excluded, including justification	Suppl Figure 1	
Method of addressing articles published in languages other than English	6	
Method of handling abstracts and unpublished studies	6	
Description of any contact with authors	6	

Reporting of methods should include		
Description of relevance or appropriateness of studies assembled for assessing the hypothesis to be tested	6, 7	
Rationale for the selection and coding of data (eg sound clinical principles or convenience)	6, 7	
Documentation of how data were classified and coded (eg multiple raters, blinding and interrater reliability)	6, 7	
Assessment of confounding (eg comparability of cases and controls in studies where appropriate)	8	
Assessment of study quality, including blinding of quality assessors, stratification or regression on possible predictors of study results	8-10	
Assessment of heterogeneity	9	
Description of statistical methods (eg complete description of fixed or random effects models, justification of whether the chosen models account for predictors of study results, dose-response models, or cumulative meta-analysis) in sufficient detail to be replicated	8-10	
Provision of appropriate tables and graphics	28-34	
Reporting of results should include		
Graphic summarizing individual study estimates and overall estimate	33	
Table giving descriptive information for each study included	28-30	
Results of sensitivity testing (eg subgroup analysis)	13, 14, 34	
Indication of statistical uncertainty of findings	33, 34	
Reporting of discussion should include		
Quantitative assessment of bias (eg publication bias)	11, 12	
Justification for exclusion (eg exclusion of non-English language citations)	-	
Assessment of quality of included studies	Suppl Table 3	
Reporting of conclusions should include		

Consideration of alternative explanations for observed results	15-17	
Generalization of the conclusions (eg appropriate for the data presented and within the domain of the literature review)	15-17	
Guidelines for future research	18	
Disclosure of funding source	19	

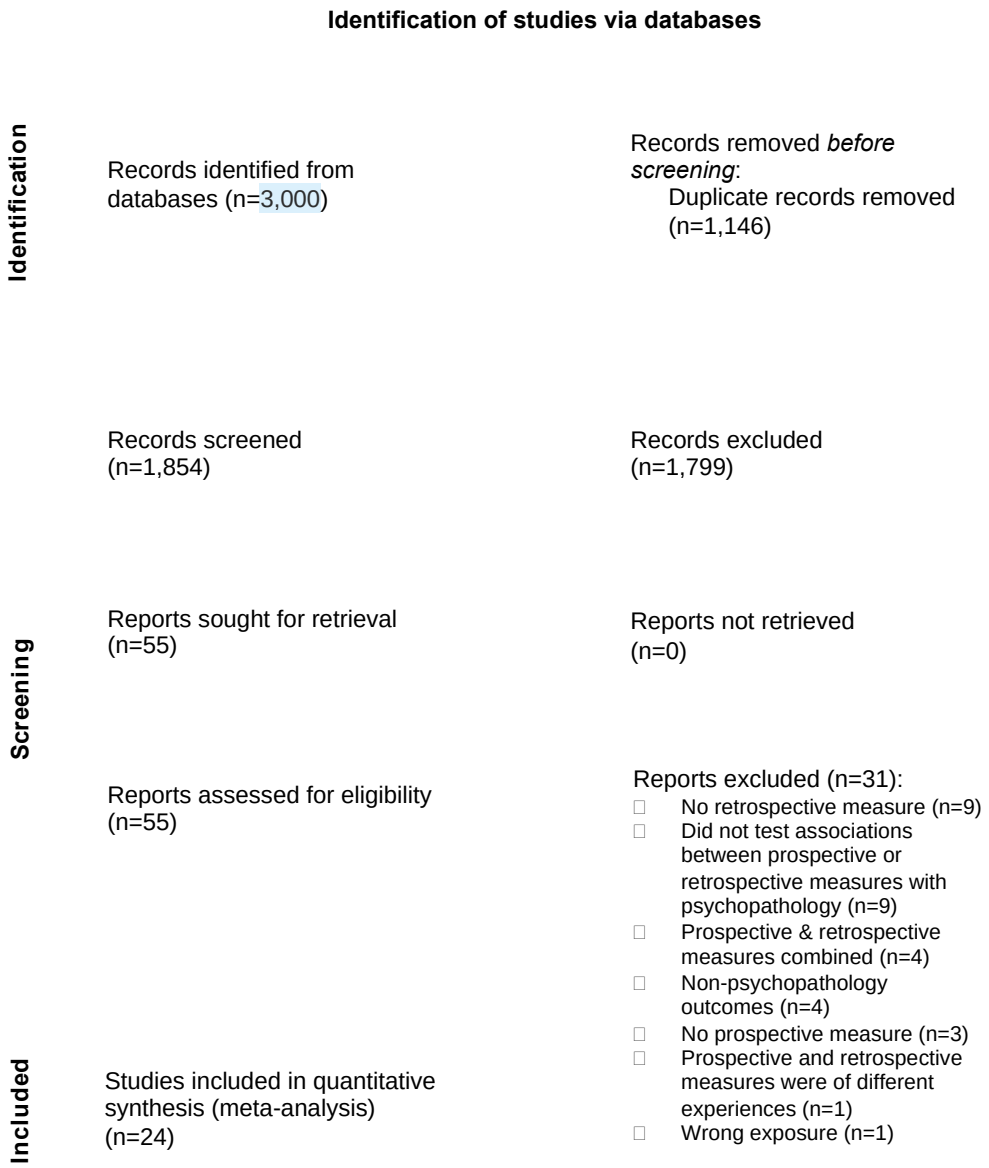
Supplementary Table 3. Quality assessment

Reference	Exposed representative of population	Exposed/unexposed from same population	Validated retrospective measure	Same exposure assessed	Same time period assessed	Control for pre-existing psychopathology	Control for key confounders[1]	Longitudinal assessment[2]	Total quality score
Baldwin et al. (2021)	1	1	1	1	0	0	0	1	5
Brown et al. (2005)	1	1	0	1	1	0	1	0	5
Cooley et al. (2022)	0	1	1	1	1	0	0	0	4
Danese & Widom (2020)	0	1	1	1	1	0	1	0	5
Dion et al. (2019)	0	1	0	0	0	1	0	0	2
Elwyn & Smith (2013)	0	1	0	1	0	0	0	1	3
Everson et al. (2008)	0	1	1	1	1	0	1	0	5
Herrenkohl et al. (2021)	0	0	0	1	0	0	0	1	2
Kisely et al. (2021)	1	1	1	1	1	1	0	0	6
Kisely et al. (2022a)	1	1	1	1	1	0	0	0	5
Kisely et al. (2022b)	1	1	1	1	1	1	0	0	6
McGee et al. (1995)	0	1	0	1	1	0	0	0	3
Mills et al. (2016)	1	1	1	1	1	1	1	0	7
Naicker et al. (2021)	1	1	0	0	1	0	1	0	4
Negriff et al. (2017)	0	1	1	1	1	0	0	0	4
Newbury et al. (2018)	1	1	1	1	1	0	0	0	5
Patten et al. (2015)	1	1	0	0	0	0	0	0	2

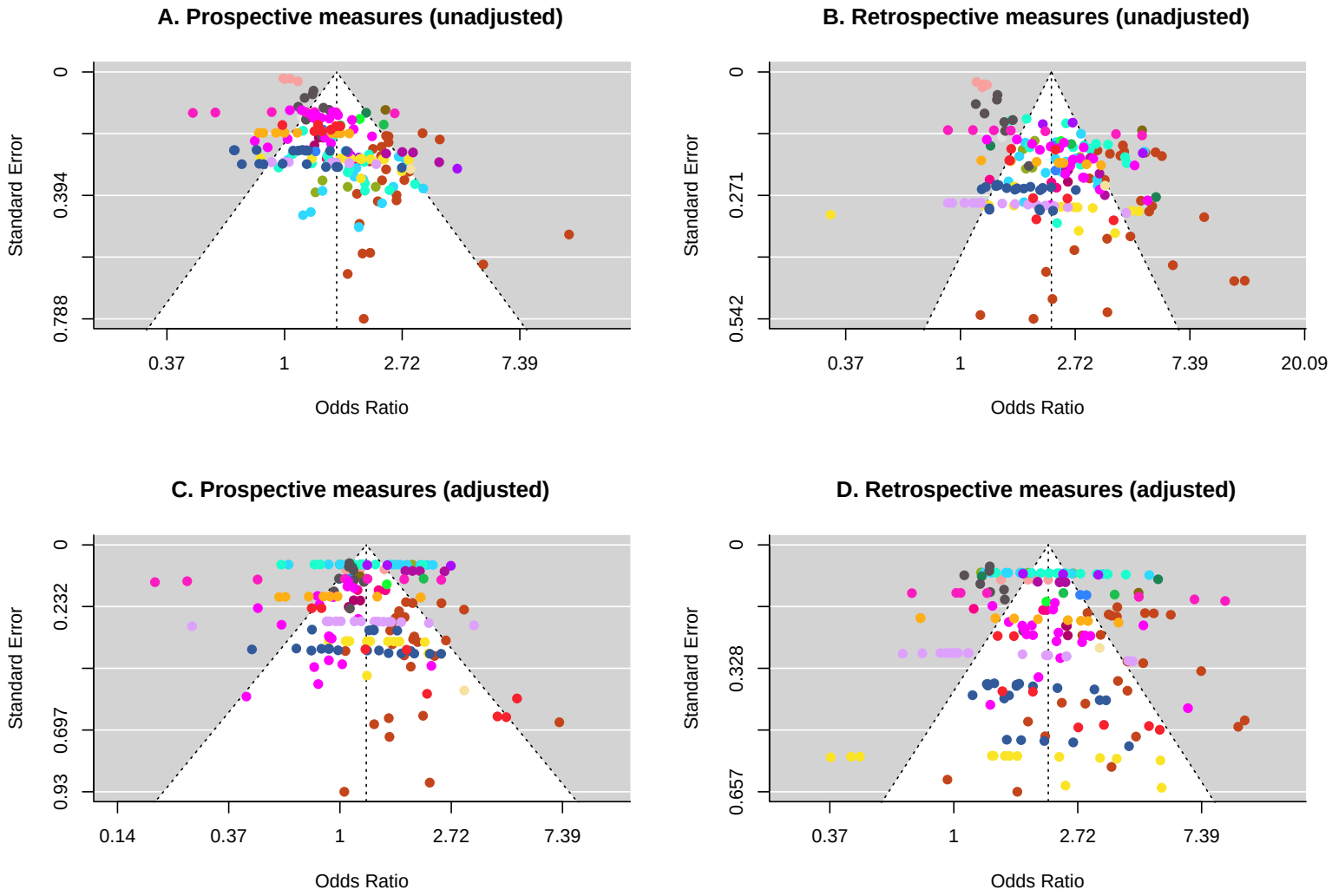
Reference	Exposed representative of population	Exposed/unexposed from same population	Validated retrospective measure	Same exposure assessed	Same time period assessed	Control for pre-existing psychopathology	Control for key confounders[1]	Longitudinal assessment[2]	Total quality score
Reuben et al. (2016)	1	1	1	1	0	0	0	0	4
Scott et al. (2012)	1	1	0	0	1	0	1	0	4
Shaffer et al. (2008)	0	1	1	1	1	0	0	0	4
Smith et al. (2008)	0	1	0	1	0	0	0	0	2
Tajima et al. (2004)	0	0	0	1	0	0	0	0	1
Talmon & Widom (2022)	0	1	1	1	1	0	1	0	5
Widom & Morris (1997)	1	1	0	1	1	0	1	0	5

Note. [1]We assessed whether studies controlled for key confounders, including any of the following: socioeconomic status, parental education, family income, other adversities (e.g., poverty, bullying, maltreatment, victimisation), or genetic risk for mental health problems (e.g., via family history of psychopathology, or polygenic score[s]).[2]We assessed whether studies used a longitudinal assessment in which prospective and retrospective measures were collected prior to the assessment of psychopathology.

Supplementary Figure 1. PRISMA diagram

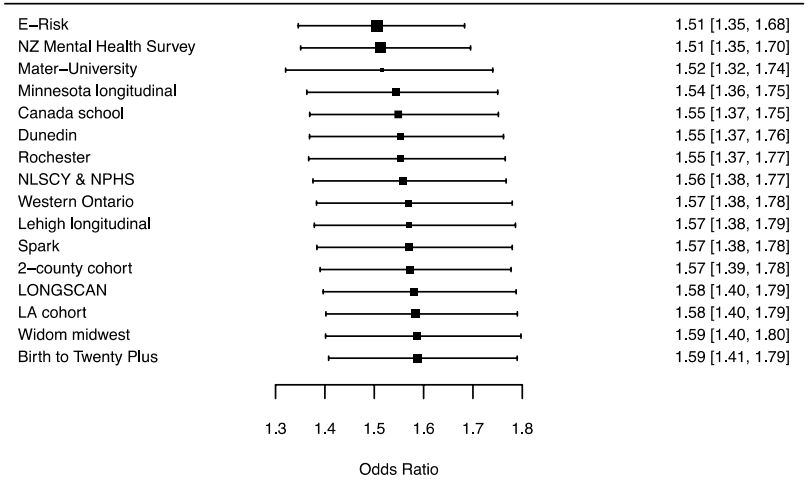


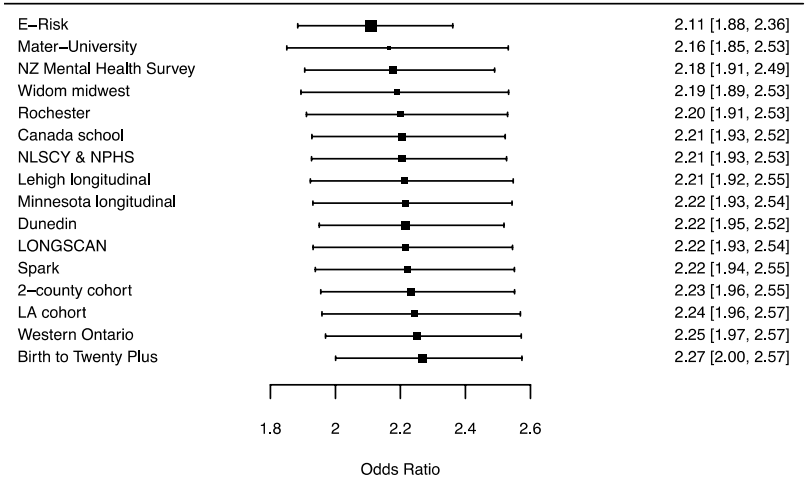
Supplementary Figure 2. Funnel plots

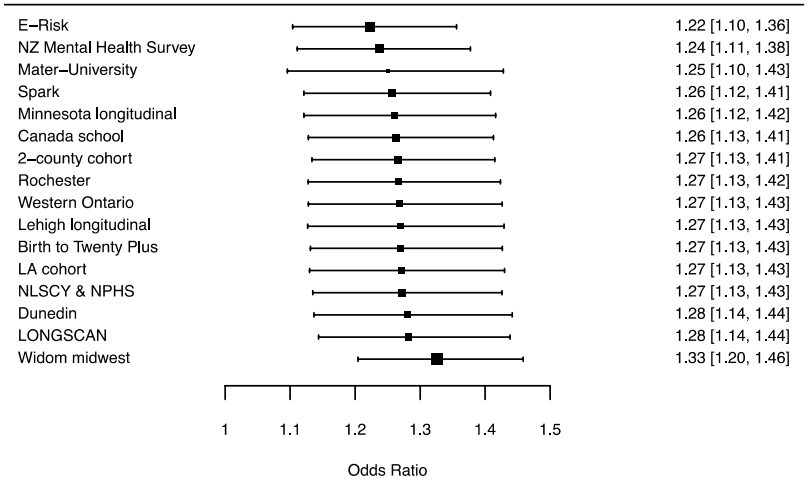


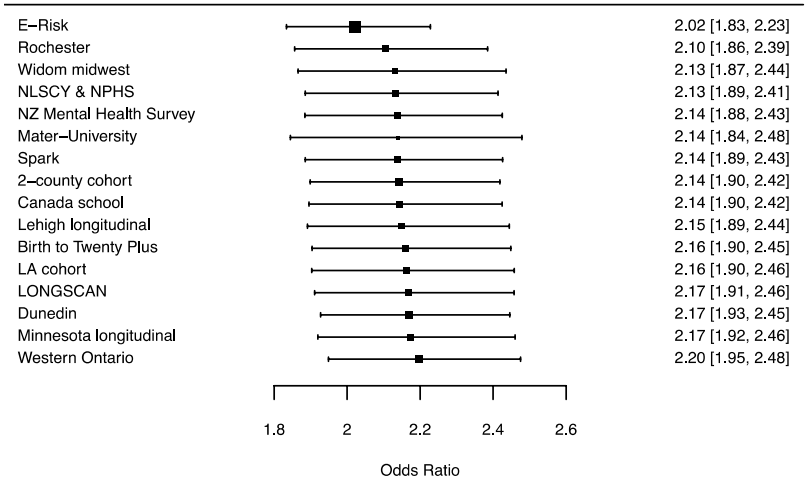
Note. Colours represent distinct studies.

Supplementary Figure 3. Leave-one-out analyses by cohort









Supplementary Figure 4. Leave-one-out analyses by study