Systematic Review Appendices

Appendix A: Inclusion/Exclusion Criteria Form

Article Title:
Author:

	Inclusion	Exclusion	Comments
Study Design	Quantitative methods (e.g. prospective, case-control, and cross-sectional studies)	Solely qualitative-analysis methods (e.g. interview, vignettes) Solely qualitative-related (e.g. editorials, literature reviews)	
Population	Individuals aged 6 to 25 years old	Any individuals outside of age range of 6 to 25	
Exposure	• Abuse directed at child • Neglect of child • Exposure to/Witnessing domestic violence between parents[1] • Self-report of child was collected and measured using tools with at least one reported psychometric property • Use of archival data that are official records or professional reports • Exposure occurred prior to age 18	• Non-maltreatment related factors • Measured using tools with no reported psychometrics • Identified only by others, not including self-report of child, official record, professional reports. • Exposure occurred after age 18	
Outcome	• Child engaging in violence and abuse against one's parent[1] (financial, physical, psychological) • Non-fatal abuse • Self-report of child/individual was collected and measured using tools with at least one reported psychometric property • Use of archival data that are official records or professional reports	• Fatal abuse leading to death/ Parricide • Violence and abuse directed at others/non-parents • Measured using tools with no reported psychometrics properties • Identified by others, not including self-report of child, official record, professional reports.	

[1] A parent is any adult household member responsible for parenting and caring for a child/individual's welfare.

Appendix B: Source of Literature and Search Terms

Data of Search Conducted: 30/03/2019

Bibliographic Database Searched	**Search Platform /Interface Used**	**Search Term Used**	**No of References Identified**
Scopus 1788 to 2019	Not applicable	TITLE-ABS-KEY (((child* OR adolescen* OR teen* OR youth*) pre/1 (parent* OR carer* OR caregiver* OR mother* OR father* OR guardian*) Pre/3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*)) OR ({parent* abuse*} OR {caregiver* abuse*} OR {carer* abuse*} OR {mother* abuse*} OR {father* abuse*} OR {guardian* abuse*}) OR ({batter* parent*} OR {batter* caregiver*} OR {batter* mother*} OR {batter* father*} OR {batter* guardian*} OR {batter* carer*}) OR ((violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*) Pre/0 (toward* OR against*) Pre/2 (parent* OR carer* OR caregiver* OR mother* OR father* OR guardian*)))	307
Applied Social Sciences Index & Abstracts (ASSIA) 1987 to 2019	ProQuest	Noft(((child*-to-parent? OR adolescen*-to-parent? OR teen*-to-parent? OR youth*-to-parent?) PRE/3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*)) OR ((child*-to-mother? OR adolescen*-to-mother? OR teen*-to-mother? OR youth*-to-mother?) PRE/3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*)) OR ((child*-to-father? OR adolescen*-to-father? OR teen*-to-father? OR youth*-to-father?) PRE/3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*)) OR ((violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*) Pre/0 (toward* OR against*) Pre/2 (parent? OR carer? OR caregiver? OR mother? OR father? OR guardian?)))	111 (only 111 could be retrieved but showed 112 results)

		Noft (("parent* abuse*" OR "caregiver* abuse*" OR "carer* abuse*" OR "mother* abuse*" OR "father* abuse*" OR "guardian* abuse*") OR ("batter* parent*" OR "batter* caregiver*" OR "batter* mother*" OR "batter* father*" OR "batter* guardian*" OR "batter* carer*"))	204
		Noft(((child*-to-guardian? OR adolescen*-to-guardian? OR teen*-to-guardian? OR youth*-to-guardian?) PRE/3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*)) OR ((child*-to-carer? OR adolescen*-to-carer? OR teen*-to-carer? OR youth*-to-carer?) PRE/3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*)) OR ((child*-to-caregiver? OR adolescen*-to-caregiver? OR teen*-to-caregiver? OR youth*-to-caregiver?) PRE/3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*)))	0
ProQuest Dissertations & Theses 1743 to 2019	ProQuest	Noft(((child*-to-parent? OR adolescen*-to-parent? OR teen*-to-parent? OR youth*-to-parent?) PRE/3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*)) OR ((child*-to-mother? OR adolescen*-to-mother? OR teen*-to-mother? OR youth*-to-mother?) PRE/3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*)) OR ((child*-to-father? OR adolescen*-to-father? OR teen*-to-father? OR youth*-to-father?) PRE/3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*)) OR ((violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*) Pre/0 (toward* OR against*) Pre/2 (parent? OR carer? OR caregiver? OR mother? OR father? OR guardian?)))	59
		Noft (("parent* abuse*" OR "caregiver* abuse*" OR "carer* abuse*" OR "mother* abuse*" OR "father* abuse*" OR "guardian* abuse*") OR	6

		(“batter* parent*” OR “batter* caregiver*” OR “batter* mother*” OR “batter* father*” OR “batter* guardian*” OR “batter* carer*”))	
		Noft(((child*-to-guardian? OR adolescen*-to-guardian? OR teen*-to-guardian? OR youth*-to-guardian?) PRE/3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*)) OR ((child*-to-carer? OR adolescen*-to-carer? OR teen*-to-carer? OR youth*-to-carer?) PRE/3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*)) OR ((child*-to-caregiver? OR adolescen*-to-caregiver? OR teen*-to-caregiver? OR youth*-to-caregiver?) PRE/3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*)))	1
Cochrane library	Not applicable	((child* OR adolescen* OR teen* OR youth*) NEXT "to" NEXT (parent* OR caregiver* OR carer* OR mother* OR father* OR guardian*) NEAR/3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*)):ti,ab,kw OR (“batter* parent*” OR “batter* caregiver*” OR “batter* carer*” OR “batter* mother*” OR “batter* father*” OR “batter* guardian*”):ti,ab,kw OR (“parent* abuse*” OR “caregiver* abuse*” OR “carer* abuse*” OR “mother* abuse*” OR “father* abuse*” OR “guardian* abuse*”):ti,ab,kw OR ((violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*) NEAR/0 (toward* OR against*) NEAR/2 (parent* OR caregiver* OR carer* OR mother* OR father* OR guardian*)):ti,ab,kw	7
Open Grey	Not applicable	abstract:(((child* OR adolescen* OR teen* OR youth*) NEAR/1 (parent* OR caregiver* OR carer* OR mother* OR father* OR guardian*) NEAR/3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*) OR (“batter* parent*” OR “batter* caregiver*” OR “batter* carer*” OR “batter* mother*” OR “batter* father*” OR “batter* guardian*”) OR	61

		("parent* abuse*" OR "caregiver* abuse*" OR "carer* abuse*" OR "mother* abuse*" OR "father* abuse*" OR "guardian* abuse*") OR ((violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*) NEAR/0 (toward* OR against*) NEAR/2 (parent* OR caregiver* OR carer* OR mother* OR father* OR guardian*)))	
Campbell Collaboration Online Library: Crime and Justice & Social Welfare 2004 to 2019	Campbell collaboration	(parent OR caregiver OR carer OR mother OR father OR guardian)	13

Date of Search Conducted: 06/04/2019

Biblographic Database Searched	**Search Platform /Interface Used**	**Search Term Used**	**No of References Identified**
PsycINFO 1806 to April Week 1 2019	OvidSP	1. (child*-to-parent? OR adolescen*-to-parent? OR teen*-to-parent? OR youth*-to-parent?).ti,ab. ADJ3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*).ti,ab. 2. (child*-to-carer? OR adolescen*-to-carer? OR teen*-to-carer? OR youth*-to-carer?).ti,ab. ADJ3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*).ti,ab. 3. (child*-to-caregiver? OR adolescen*-to-caregiver? OR teen*-to-caregiver? OR youth*-to-caregiver?).ti,ab. ADJ3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*).ti,ab.	1056
Ovid MEDLINE(R) ALL 1946 to April 05, 2019			577

Embase 1974 to 2019 April 05		4. (child*-to-mother? OR adolescen*-to-mother? OR teen*-to-mother? OR youth*-to-mother?).ti,ab. ADJ3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*).ti,ab. 5. (child*-to-father? OR adolescen*-to-father? OR teen*-to-father? OR youth*-to-father?).ti,ab. ADJ3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*).ti,ab. 6. (child*-to-guardian? OR adolescen*-to-guardian? OR teen*-to-guardian? OR youth*-to-guardian?).ti,ab. ADJ3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*).ti,ab. 7. ((parent? OR carer? OR caregiver? OR mother? OR father? OR guardian?) ADJ abuse?).ti,ab. 8. (batter* ADJ (parent? OR carer? OR caregiver? OR mother? OR father? OR guardian?)).ti,ab. 9. ((violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*) ADJ (toward* OR against*) ADJ2 (parent? OR carer? OR caregiver? OR mother? OR father? OR guardian?)).ti,ab. 10.1 OR 2 OR 3 OR 4 OR 5 OR 6 OR 7 OR 8 OR 9	688

Psychology/Sociology Databases • CINAHL Plus with Full Text 1937 to 2019 • Child Development & Adolescent Studies 1927 to 2019 • European Views of the Americas: 1493 to 1750 • eBook Collection (EBSCOhost)	EBSCOhost	1. TI ((child*-to-parent# OR adolescen*-to-parent# OR teen*-to-parent# OR youth*-to-parent#) N3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*)) OR AB ((child*-to-parent# OR adolescen*-to-parent# OR teen*-to-parent# OR youth-to-parent#) N3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*)) 2. TI ((child*-to-carer# OR adolescen*-to-carer# OR teen*-to-carer# OR youth*-to-carer#) N3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*)) OR AB ((child*-to-carer# OR adolescen*-to-carer# OR teen*-to-carer# OR youth-to-carer#) N3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*)) 3. TI ((child*-to-caregiver# OR adolescen*-to-caregiver# OR teen*-to-caregiver# OR youth*-to-caregiver#) N3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*)) OR AB ((child*-to-caregiver# OR adolescen*-to-caregiver# OR teen*-to-caregiver# OR youth*-to-caregiver#) N3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*)) 4. TI ((child*-to-mother# OR adolescen*-to-mother# OR teen*-to-mother# OR youth*-to-mother#) N3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*)) OR AB ((child*-to-mother# OR adolescen*-to-mother# OR teen*-to-mother# OR youth*-to-mother#) N3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*)) 5. TI ((child*-to-father# OR adolescen*-to-father# OR teen*-to-father# OR youth*-to-father#) N3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*)) OR AB ((child*-to-father# OR adolescen*-to-father# OR teen*-to-father# OR youth*-to-father#) N3	660

		(violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*)) 6. TI ((child*-to-guardian# OR adolescen*-to-guardian# OR teen*-to-guardian# OR youth*-to-guardian#) N3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*)) OR AB ((child*-to-guardian# OR adolescen*-to-guardian# OR teen*-to-guardian# OR youth*-to-guardian#) N3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*)) 7. TI ("batter* parent#" OR "batter* caregiver#" OR "batter* mother#" OR "batter* father#" OR "batter* guardian#" OR "batter* carer#") OR AB ("batter* parent#" OR "batter* caregiver#" OR "batter* mother#" OR "batter* father#" OR "batter* guardian#" OR "batter* carer#") 8. TI ("parent# abuse*" OR "carer# abuse*" OR "mother# abuse*" OR "father# abuse*" OR "guardian# abuse*" OR "caregiver# abuse*") OR AB ("parent# abuse*" OR "carer# abuse*" OR "mother# abuse*" OR "father# abuse*" OR "guardian# abuse*" OR "caregiver# abuse*") 9. TI ((violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*) N1 (toward* OR against*) N2 (parent# OR caregiver# OR carer# OR mother# OR father# or guardian#)) OR AB ((violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*) N1 (toward* OR against*) N2 (parent# OR caregiver# OR carer# OR mother# OR father# or guardian#)) 10. 1 OR 2 OR 3 OR 4 OR 5 OR 6 OR 7 OR 8 OR 9	
Web Of Science Core Collection 1900 to 2019	Web of science	TS = (((child*-to-parent$ OR adolescen*-to-parent$ OR teen*-to-parent$ OR youth*-to-parent$) NEAR/3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*)) OR (child*-to-carer$ OR adolescen*-to-carer$ OR teen*-to-carer$ OR youth*-to-carer$) NEAR/3	575

		(violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*) OR (child*-to-caregiver$ OR adolescen*-to-caregiver$ OR teen*-to-caregiver$ OR youth*-to-caregiver$) NEAR/3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*) OR (child*-to-mother$ OR adolescen*-to-mother$ OR teen*-to-mother$ OR youth*-to-mother$) NEAR/3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*) OR (child*-to-father$ OR adolescen*-to-father$ OR teen*-to-father$ OR youth*-to-father$) NEAR/3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*) OR (child*-to-guardian$ OR adolescen*-to-guardian$ OR teen*-to-guardian$ OR youth*-to-guardian$) NEAR/3 (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*) OR "batter* parent$" OR "batter* caregiver$" OR "batter* mother$" OR "batter* father$" OR "batter* guardian$" OR "batter* carer$" OR "parent$ abuse*" OR "carer$ abuse*" OR "mother$ abuse*" OR "father$ abuse*" OR "guardian$ abuse*" OR "caregiver$ abuse*" OR (violen* OR aggress* OR maltreat* OR abuse* OR assault* OR attack* OR exploit*) NEAR/1 (toward* OR against*) NEAR/2 (parent$ OR caregiver$ OR carer$ OR mother$ OR father$ or guardian$))	

Date of Search Conducted: 13/04/2019

Database Searched	**Search Platform /Interface Used**	**Search Term Used**	**No of References Identified**
Google Scholar	Not applicable	"to-parent violence" "to-mother violence" "violence against parents"	First 100 hits for each search term
NSPCC: Research category	Not applicable	Not applicable	50

Appendix C: Data Extraction Form

General Information	
Data Extraction date	
Author	
Title of paper / report	
Citation: (pub year, vol, pages, source/publisher of journal, etc)	
Country, Region of Origin	
Type of study (full text, abstract, published, unpublished, etc)	
Study Characteristic	
Study design (prospective, cross-sectional, retrospective)	
Study aim	
Research ethics	
Data collection setting	
Participant recruitment procedure and Target population	
Participant Characteristics	
Sample size (include no of males and females)	
Number of participants per group (if applicable)	
Target child mean age	
Ethnicity	
Family composition	
Parental SES / edu	
Measures & Methods	
Variable measure used (measurement type eg self-report, parent report)	
Variable being measured (eg abuse, neglect, typical parenting, etc)	
Validity of variable measure	
Reliability of variable measure	
Type of data (Continuous, ordinal, binary, etc)	
CPVA measure used (measure type eg self-report, parent report)	
Type of CPVA being measured	
Validity of CPVA measure	
Reliability of CPVA measure	
Type of data (Continuous, ordinal, binary, etc)	
Type of statistical method used	
Outcomes	
CPVA prevalence rate	
Sig and Non-sig findings (means, SD, p-value, CI)	

Appendix D: Quality Assessment Forms

Form 1: Risk of Bias Assessment tool

	Author/s **Date** **Study Number (etc 01, 02)**					
	Study design					
		Y	**P**	**N**	**U**	**Comment**
1. Statement of Ethical consideration?						
Sampling and Selection						
2. Was the sample size large enough (based on power)?						
3a. Were the participants likely to be representative of children / adolescents in the specified age range in the general population?						
3b. If recruitment was based on the presence and absence of a certain factor, were exposed and non-exposed groups representative of its source population?						
3c. If recruitment was based on the presence and absence of CPVA, were cases and controls both representative of its respective source population?						
4. *If Question 3b or 3c was answered,* was there measure to ensure the groups were true to their status?						
5. *If Question 3b or 3c was answered* (recruitment was based on the presence and absence of a certain factor or CPVA), were the groups comparable at baseline? Were important confounders considered and appropriately dealt with?						
6. Were the participant eligibility and exclusion criteria well defined and rigorously applied?						
7. Was the response rate reasonable (≥70%)?						
	Risk of sampling and selection bias? *High Low Unclear*					

Measurement of Exposure (characteristics, contributing factors)					
8. Were the characteristics / factors clearly defined?					
9. Data were collected using the same measures across all participants?					
10a. Were the maltreatment-related measures reliable? (anything measuring abuse, neglect, the child witnessing marital or domestic violence)					
10b. Were the non maltreatment -related measures reliable? **(Cross out if not applicable)**					
11a. Were the maltreatment-related measures valid? (anything measuring abuse, neglect, the child witnessing marital or domestic violence)					
11b. Were the non maltreatment-related measures valid? **(Cross out if not applicable)**					
12. Were data collected in a consistent setting?					
13. The assessor(s) collected the data in a consistent manner					
14. Were the assessors qualified to carry out the assessment?					
Risk of measurement bias for exposure? *High Low Unclear*					
Measurement Bias for Outcome (CPVA)					
15. Was the outcome clearly defined?					
16. Data were collected using the same measures across all participants?					
17. Were the measures reliable?					
18. Were the measures valid?					
19. Were data collected in a consistent setting?					
20. The assessor(s) collected the data in a consistent manner					
21. Were the assessors qualified to carry out the assessment?					
22. Were multiple sources of information used to ascertain CPVA?					

23. Were the study participants fully aware of the research question or aims during the assessment? Was partial deception used?						
	Risk of measurement bias for outcome *High Low Unclear*					
Attrition						
24. Were those who participated and those who didn't similar?						
25. ***Only*** *answer if longitudinal study.* Was there a follow period long enough?						
26. ***Only*** *answer if longitudinal study.* Was the follow up period clearly defined and at a similar length across participants?						
27. ***Only*** *answer if longitudinal study. Were those who completed the study and all follow up similar to those who didn't similar?*						
28. ***Only*** *answer if longitudinal study.* Was the percentage of participants followed up acceptable (≥80%)?						
29. Were missing data appropriately dealt with?						
	Risk of attrition bias? *High Low Unclear*					
Analysis						
30. Were the statistical methods appropriate for the study design?						
	Risk of statistical bias? *High Low Unclear*					
Reporting						
31. Was there selecting reporting (i.e. omitting non-significant results)?						
32. Were results reported in precise manner? (effect size, p-values stated)						
	Risk of reporting bias? *High Low Unclear*					

Individual reviewer results

Risk of	**High**	**Low**	**Unclear**
Limited ethical consideration			
Sampling & selection bias			
Measurement bias (exposure)			
Measurement bias (outcome)			
Attrition bias			
Statistical bias			
Reporting bias			

The level of discrepancies between the 2 reviewers (kappa)?

Please indicate the main reason for the discrepancy?

1. Oversight
2. Differences in interpretation of criteria
3. Differences in interpretation of study

Form 2: Quality / Risk of bias assessment guide

Keys
Y = yes
S = somewhat
N = No
U = Unclear

1. Ethical consideration	Y	Ethics approval + how they meet ethical requirements on confidentiality, anonymity, rights to withdraw etc. (Low risk)
	S	Only mentioned approval but no details or only details but not clarified who gave approval (Unclear risk)
	N	No ethics taken into consideration at all (High risk)
	U	More information needed as unclear/ No information provided in the paper and no reply to attempts to clarify.
2. Was the sample size large enough (based on power)? [sampled size of 90 based on medium effect size of 0.15 and power of 0.95]	Y	Based on power analysis, the number has sufficient power
	S	Slightly under power
	N	Clearly under power
	U	More information needed as unclear/ No information provided in the paper and no reply to attempts to clarify.
3a. ***Only*** *answer for <u>longitudinal or cross-sectional studies</u> that recruit before assessing exposure and outcome.* Were the participants likely to be representative of children / adolescents in the specified age range in the general population? ***Cross out 3b and 3c.***	Y	Highly representative: participants recruited from multiple sources or use of probability sampling
	S	Somewhat representative/ selected groups of individuals or use of non-probability sampling
	N	Not representative or no description
	U	More information needed as unclear/ No information provided in the paper and no reply to attempts to clarify.
3b. ***Only*** *answer for <u>longitudinal studies</u> of purposely selected exposure and non-exposure groups.* If recruitment was based on the presence and absence of a certain exposure factor, were exposed and non-exposed groups representative of its respective source population?	*Assess the representativeness of all exposed individuals in the community (referred/ receiving services), not the representativeness against the general population.*	
	Y	Highly representative of exposed individual in community: participants recruited from multiple sources or use of probability sampling
	S	Somewhat representative/ selected groups of individuals or use of non-probability sampling

Cross out 3a. and 3c.	N	Not representative or no description
	U	More information needed as unclear/ No information provided in the paper and no reply to attempts to clarify.
3c. ***Only*** *answer for* <u>*case control studies*</u> *of purposely selected exposure and non-exposure groups.* If recruitment was based on the presence and absence of CPVA, were cases and controls both representative of its respective source population? ***Cross out 3a and 3b.***	Assess 1) the representativeness of cases against all children in the specified age range showing CPVA, not the general child population; 2) if the controls come from the same source population.	
	Y	Highly representative: both groups are recruited from multiple sources and from the same sources or use of probability sampling
	S	Somewhat representative, a mix of same and different source or use of non-probability sampling
	N	Not representative, exposed and non-exposed from different sources/ no description
	U	More information needed as unclear/ No information provided in the paper and no reply to attempts to clarify.
4. ***Only*** *answer if* <u>*Question 3b or 3c*</u> *was answered,* was there measure to ensure the groups were true to their status (Ascertainment of exposure/outcome) ***Cross out if 3a answered.***	Effort to ensure presence/lack of exposure or outcome is real	
	Y	Full details (obtained from records, self-report, other report, etc) and objective judgment
	S	Only mentioned that it was ascertained but no details on how/ use of personal judgment
	N	No details/no ascertaining done
	U	More information needed as unclear/ No information provided in the paper and no reply to attempts to clarify.
5. ***Only*** *answer if* <u>*Question 3b or 3c*</u> *was answered* If recruitment was based on the presence and absence of a certain factor or CPVA, were the groups comparable at baseline? Were important confounders considered and appropriately dealt with? *Example confounders: sex, race, marital stats, family structure, age, SES, education, mental health status*	Y	Comparable at baseline/ all confounders appropriately dealt with (Possible design: effective matching or stratification. If no matching or stratification, statistical adjustment should be employed.)
	S	Some confounders were appropriately dealt with
	N	No or small number of confounders appropriately dealt with
	U	More information needed as unclear/ No information provided in the paper and no reply to attempts to clarify.

Cross out if 3a answered.		
6. Were the participant eligibility / exclusion criteria well defined and rigorously applied? *Example eligibility criteria: age range, location, services they are attending etc.* *Example exclusion criteria: below average intellectual functioning, languages etc.*	Y	Well defined and rigorously applied
	S	Well defined but not rigorously applied/ not well defined but rigorously applied/ partially defined and applied
	N	No details/ poorly applied and defined
	U	More information needed as unclear/ No information provided in the paper and no reply to attempts to clarify.
7. Was the response rate reasonable?	Y	> = 70% or archival data used
	S	60% – 69%
	N	< 60%
	U	More information needed as unclear/ No information provided in the paper and no reply to attempts to clarify.
8. And 15. Were the characteristics / factors assessed well defined?	Y	Clearly defined and elaborated or with good examples (eg listing all the questions of the questionnaire) that allow reader to have a clear idea of the definition.
	S	Some definition / explanation but need clarification.
	N	No definition / showing contradiction between definition and what's covered in the tool
	U	More information needed as unclear/ No information provided in the paper and no reply to attempts to clarify.
9. And 16. Were data collected using the same measures across all participants?	Y	Used for all participants and all time points
	S	For some participants or only for some time points
	N	Different across participants
	U	More information needed as unclear/ No information provided in the paper and no reply to attempts to clarify.
10a, 10b And 17. Were the measures reliable? *Consider internal consistency, inter-rater reliability etc. Test-retest reliability not important for dynamic factors or transient states.*	Y	Several types of reliability shown as good or taken from official record
	P	At least 1 type of reliability
	N	Never tested / calculated
	U	More information needed as unclear/ No information provided in the paper and no reply to attempts to clarify.

If the information is not in the paper, please google.		
11a, 11b And 18. Were the measures valid? *If the information is not in the paper, please google.*	Y	Good in various types or taken from official record
	S	At least 1 type of validity
	N	Never tested / calculated
	U	More information needed as unclear/ No information provided in the paper and no reply to attempts to clarify.
12. And 19. Were data collected in a consistent setting? *E.g. Did they all fill out the questionnaire in the same environment (e.g. school, home, clinic)?*	Y	Filled out in the same environment or archival data used
	S	Filled out in a restricted number of environments
	N	Filled out in any environment
	U	More information needed as unclear/ No information provided in the paper and no reply to attempts to clarify.
13. And 20. Did the assessor(s) collect the data in a consistent manner? *E.g. The assessor gives out questionnaires and instruction or retrieve archival data in the same way. If there's more than one, is there evidence of good inter-rater reliability or training to ensure consistent implementation?*	Y	Sufficient and appropriate measures taken to ensured that data was consistently collected
	S	Some measures taken to collect data consistently or stated measures given out the same way but limited details or structured method used to retrieve data
	N	No description/no measures taken/ no response from author despite attempts to clarify
	U	More information needed as unclear/ No information provided in the paper and no reply to attempts to clarify.
14. And 21. Were the assessors qualified to carry out the assessment? *Assess information on assessors' qualification or training undertaken for the specific tools used*	Y	Qualified/training received/no training or qualification required
	S	Measures are taken to ensure assessments are conducted correctly but not qualified/ stated qualified but no details to explain/ no response from author despite attempts to clarify
	N	Not qualified or trained/no measures taken
	U	More information needed as unclear/ No information provided in the paper and no reply to attempts to clarify.
22. Were multiple sources of information used to ascertain CPVA?	Y	Include at least another informant, e.g. youth disclosure combined with parent / teacher report or official record.
	N	Only from one party

	U	More information needed as unclear/ No information provided in the paper and no reply to attempts to clarify.
23. Were the study participants fully aware of the research question or aims during the assessment? Was partial deception used? *If the full purpose was shown in the beginning, could this lead to more socially desirable responding?* ***Cross out if archival or secondary data used***	Y	Partial deception at the beginning of study and full awareness of true purpose. (Partial deception involves revealing a more general but accurate aim of the research at consent stage and then the actual precise aim at the debriefing stage.)
	S	Full awareness of true purpose from beginning of study
	N	No awareness of true purpose through the study
	U	More information needed as unclear/ No information provided in the paper and no reply to attempts to clarify.
24. Were those who gave consent and participated and those who didn't similar? ***Cross out if archival or secondary data used***	Y	Similar when compared on key demographics or other variables.
	S	Similar on some variables but not the others
	N	No similarity after comparison
	U	More information needed as unclear/ No information provided in the paper and no reply to attempts to clarify.
25. ***Only*** *answer if <u>longitudinal study</u>* Was there a follow period long enough? ***Cross out if not applicable based on study design (eg retrospective case control or cross-sectional studies)***	Y	At least 6 months as behavioural outcomes tend to take time to show.
	N	Less than 6 months
	U	More information needed as unclear/ No information provided in the paper and no reply to attempts to clarify.
26. ***Only*** *answer if <u>longitudinal study</u>* Was the follow up period clearly defined and at a similar length across participants? ***Cross out if not applicable based on study design (eg retrospective case control or cross-sectional studies)***	Y	Clearly specified follow-up time points for cohort studies. Within 2 months of the designated follow-up time point.
	S	Within 2 – 3 months
	N	Longer than 3 months
	U	More information needed as unclear/ No information provided in the paper and no reply to attempts to clarify.

27.***Only*** *answer if <u>longitudinal study.</u>* *Were those who completed the study and all the follow ups and those who didn't similar?* ***Cross out if not applicable based on study design (eg retrospective case control or cross-sectional studies)***	Y	Those who gave consent and participated in cross-sectional study or Time 1 or 2 of a cohort study were similar when compared on key demographics or other variables.
	S	Similar on some variables but not the others
	N	No similarity after comparison
	U	More information needed as unclear/ No information provided in the paper and no reply to attempts to clarify.
28.***Only*** *answer if <u>longitudinal study.</u> studies.* Was the percentage of participants followed up acceptable (≥80%)? ***Cross out if not applicable based on study design (eg retrospective case control or cross-sectional studies)***	Y	Acceptable (≥80%)
	N	Not acceptable (<20%)
	U	More information needed as unclear/ No information provided in the paper and no reply to attempts to clarify.
29.Were missing data appropriately dealt with?	Y	E.g. multiple imputation, bootstrapping, sensitivity analysis, mean imputation for univariate analysis
	S	E.g. mean imputation for multivariate analysis, pairwise deletion
	N	E.g. Listwise deletion
	U	More information needed as unclear/ No information provided in the paper and no reply to attempts to clarify.
30.Were the statistical methods appropriate for the study design?	Y	Appropriate for the design, meeting assumptions or strong alternative justification for the test (e.g. using ANOVA for non-normally distributed data due to ANOVA's robust nature)
	S	Appropriate but lack rigour in testing data or assumptions
	N	Wrong test applied
	U	More information needed as unclear/ No information provided in the paper and no reply to attempts to clarify.
31.Were all results reported (i.e. any presence of selective reporting/ omitting non-	Y	All results (significant and non-significant) were reported
	N	Only significant results were reported

significant results)?		
32. Were results reported in precise manner? (effect size, p-values stated)	Y	Yes, results were reported in precise manner
	S	Some results were reported in precise manner
	N	No, not reported in precise manner

Appendix E: Data Transformation Equations

Equations were obtained from: Borenstein, M., Hedges, L. V., Higgins, J. P., Rothstein, H. R., & Higgins, J. P. (2011). *Introduction to meta-analysis.* West Sussex: John Wiley & Sons, Incorporated.

Transforming Correlation (r) to Fizher's (z):

$$z = .5 \times \ln\left(\frac{1+r}{1-r}\right)$$

$$V_z = \frac{1}{n-3}$$

Transforming Fisher's (z) to Correlation (r):

$$r = \frac{e^{2z}-1}{e^{2z}+1}$$

Transforming Standardised mean difference (*d*) to Correlation (r):

$r = \frac{d}{\sqrt{d^2+a}}$, a=$\frac{(n_1+n_2)^2}{n_1 n_2}$ or 4 (if $n_1$and n_2 are not known)

$$V_r = \frac{a^2 V_d}{(d^2+a)^3}$$

Transforming Odds ratio (OR) to Log Odds ratio:

$$LogOddsRatio = \ln(OddsRatio)$$

Transforming Odds ratio (OR) to Standardised mean difference (*d*):

$$d = LogOddsRatio \times \frac{\sqrt{3}}{\pi}$$

$$V_d = V_{LogOddsRatio} \times \frac{3}{\pi^2}$$

Combining across outcomes/time-points/comparisons within a study:

$\bar{Y} = \frac{1}{2}(Y_1 + Y_2)$ OR $\bar{Y} = \frac{1}{m}\sum_j^m Y_j$, *Y are effect sizes and m are number of outcomes*

$$V_{\bar{Y}} = \frac{1}{4}\left(V_{Y_1} + V_{Y_2} + 2\bar{Y}\sqrt{V_{Y_1}}\sqrt{V_{Y_2}}\right)$$

Combining independent subgroups (*M*) within a study:

$M = \frac{\sum_{i=1}^k W_i Y_i}{\sum_{i=1}^k W_i}$, *W are weight and Y are effect sizes*

$$V_m = \frac{1}{\sum_{i=1}^k W_i}$$

Appendix F: Sensitivity Analyses for Conversion of Estimates to Fisher's *z* Correlations Effect Size Metrics

Group 1: Studies reporting correlation effect size metrics (transformed to Fisher's z effect size metrics)

Group 2: Studies reporting odds ratio effect size metrics (transformed to Fisher's z effect size metrics)

Figure 1. Forest plot of the influence of overall childhood maltreatment on overall CPVA, Fisher's Z correlation effect size metric

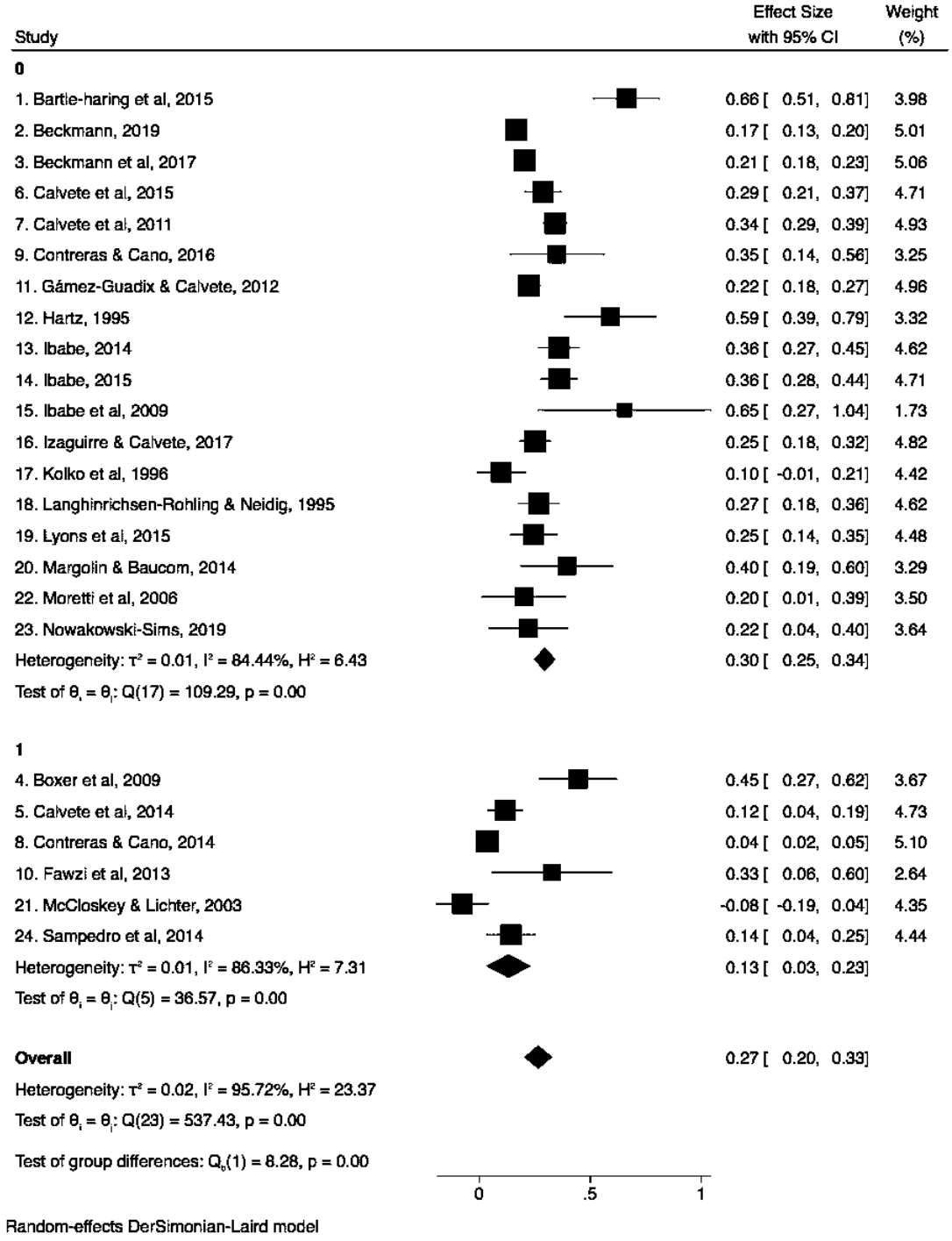
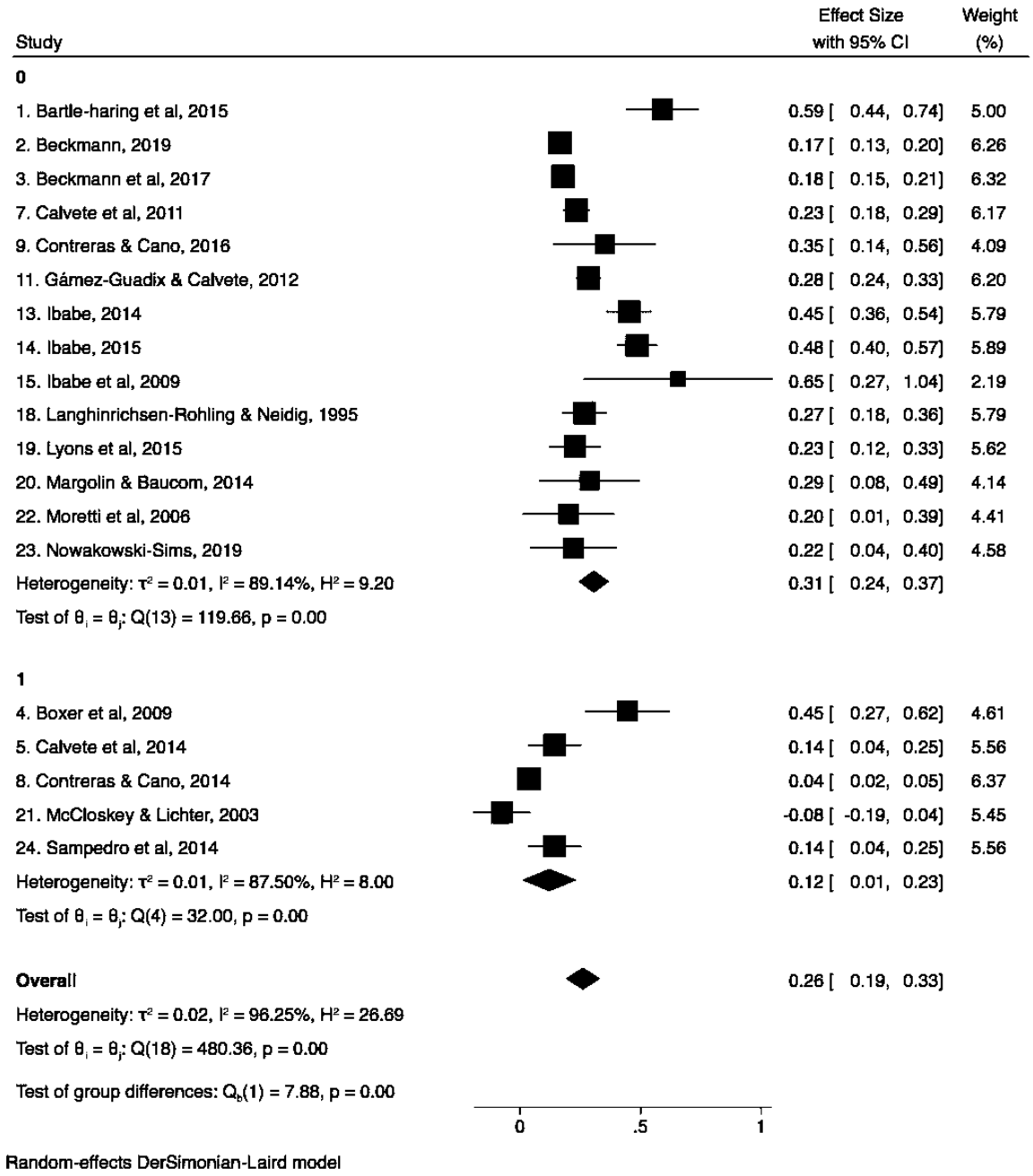


Figure 2. Forest plot of the influence of overall childhood maltreatment on physical CPVA, Fisher's Z correlation effect size metric.



Appendix G: Fixed Effect Model of Meta-analyses

Figure 1. Forest plot of the influence of overall childhood maltreatment on overall CPVA, Fisher's Z correlation effect size metric

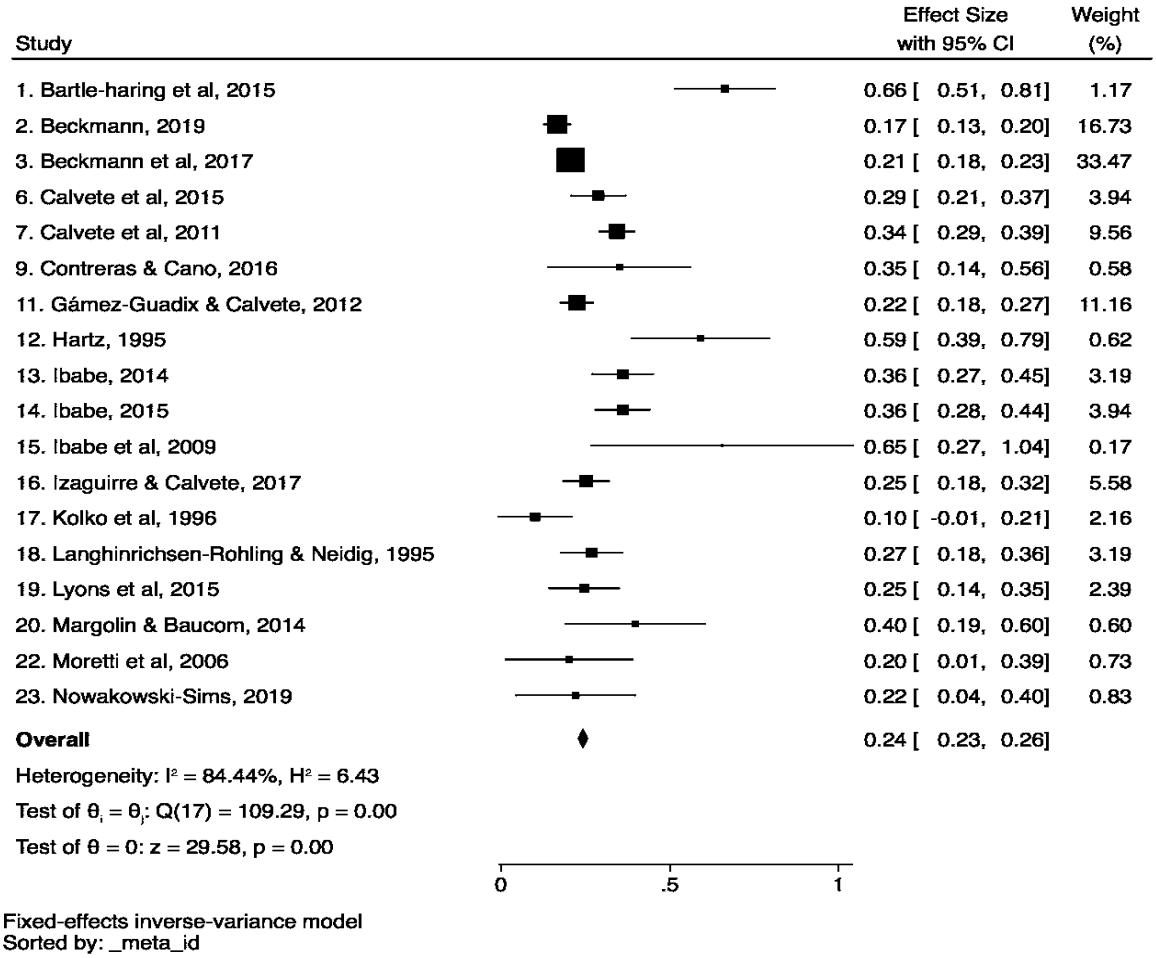


Figure 2. Forest plot of the influence of overall childhood maltreatment on overall CPVA, (logged) odds ratio effect size metric

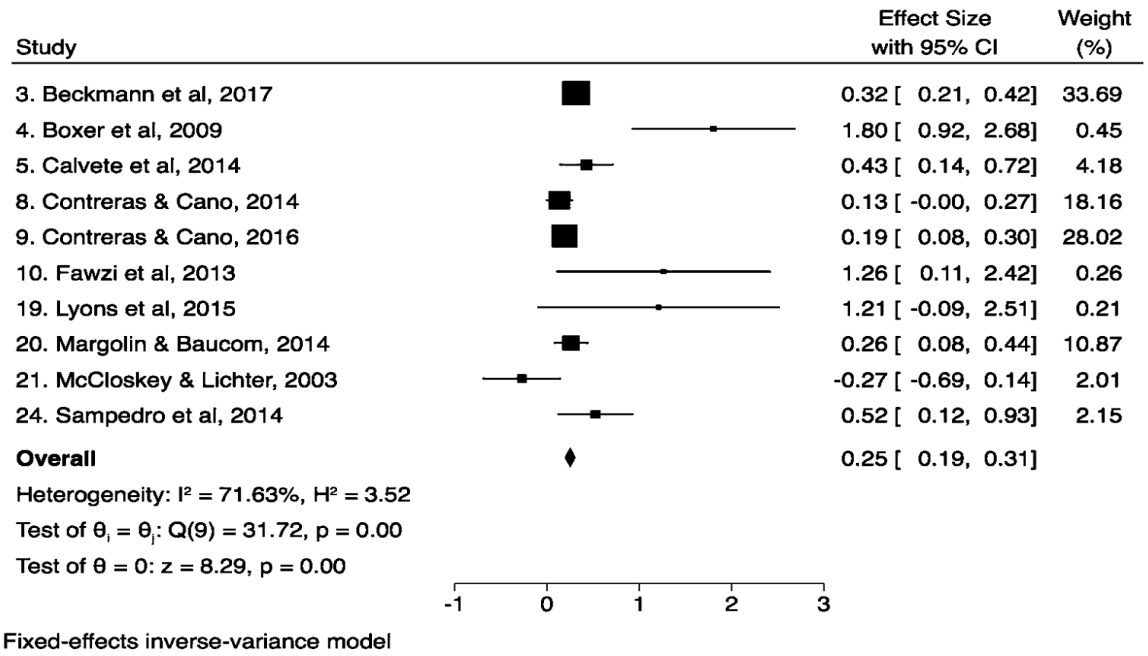


Figure 3. Forest plot of the influence of direct victimisation on overall CPVA, Fisher's Z correlation effect size metric

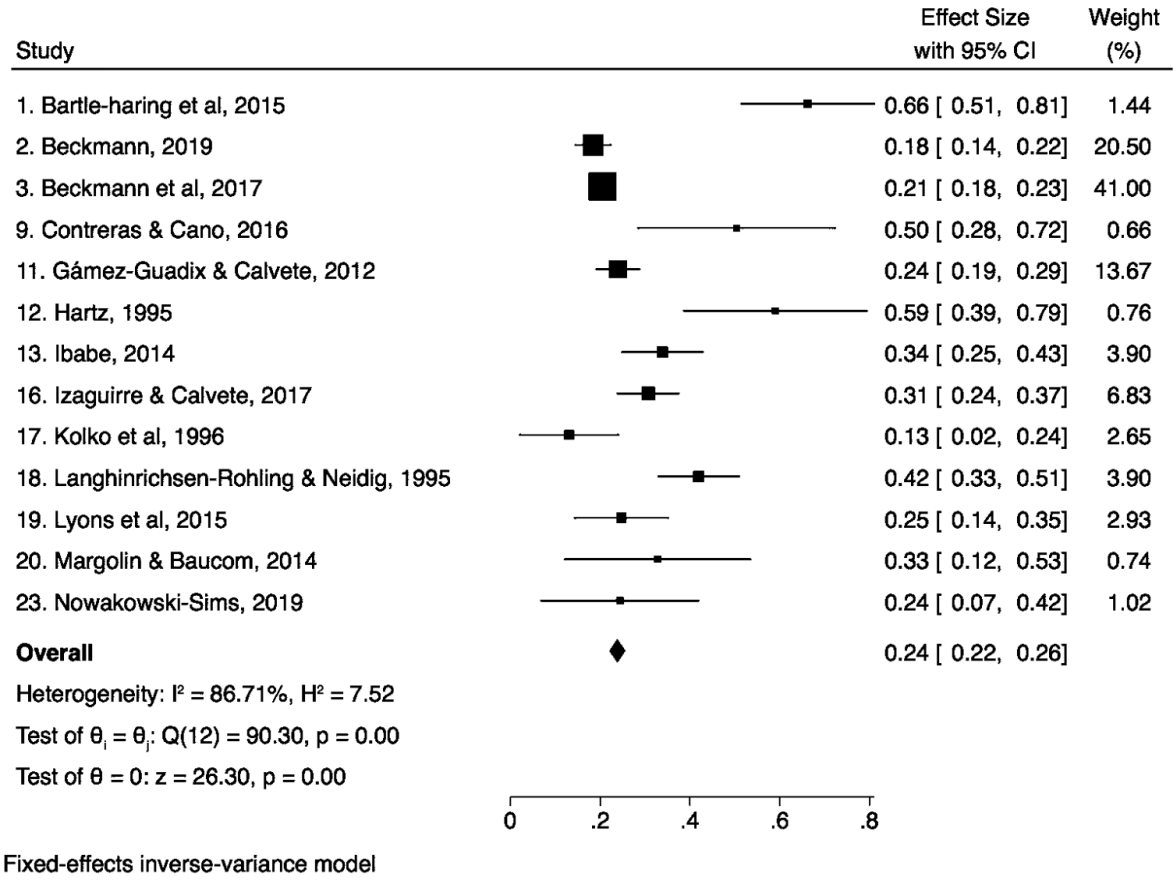


Figure 4. Forest plot of the influence of exposure to domestic violence on overall CPVA, Fisher's Z correlation effect size metric

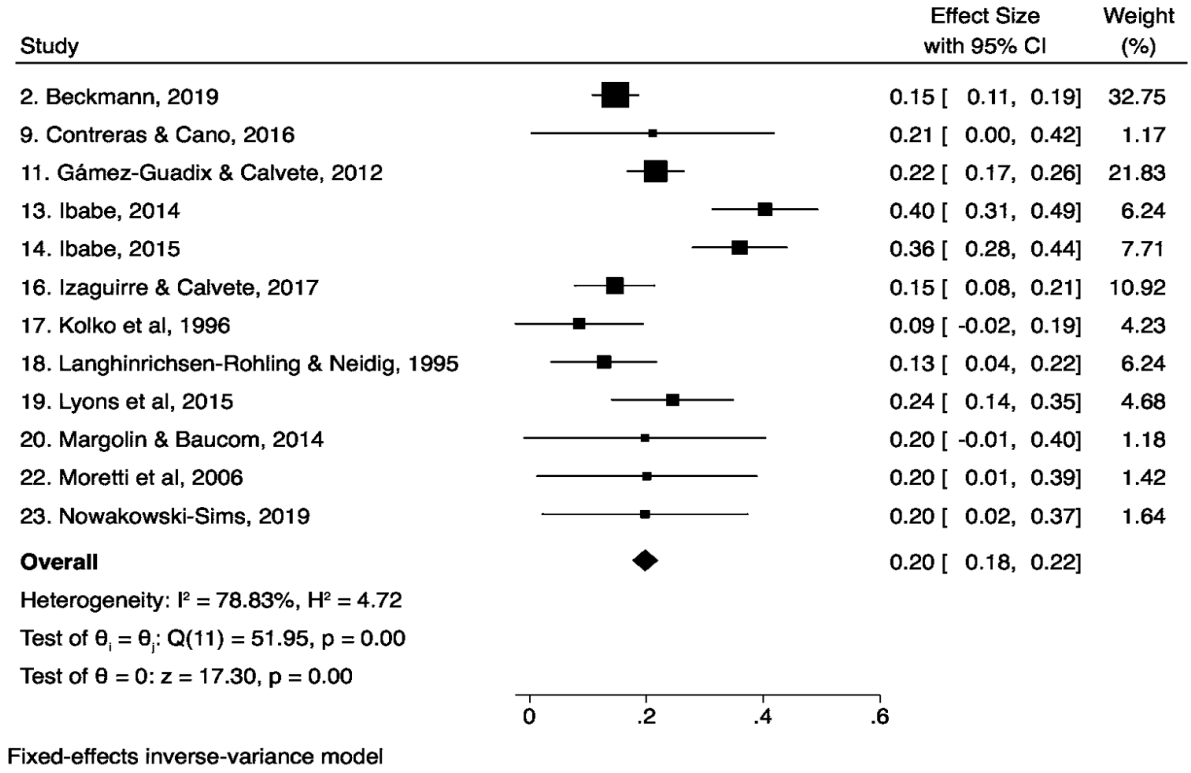


Figure 5. Forest plot of the influence of overall childhood maltreatment on physical CPVA, Fisher's Z correlation effect size metric

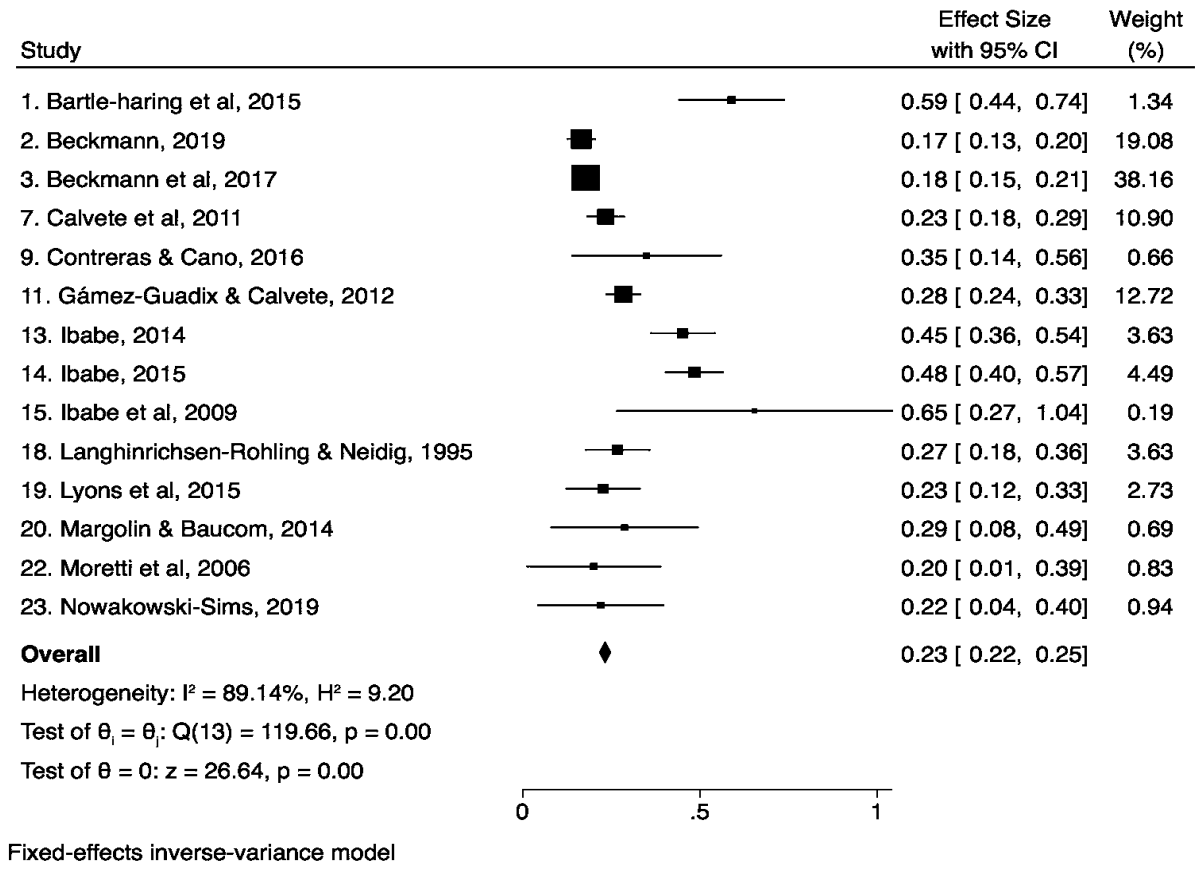


Figure 6. Forest plot of the influence of overall childhood maltreatment on physical CPVA, (logged) odds ratio effect size metric

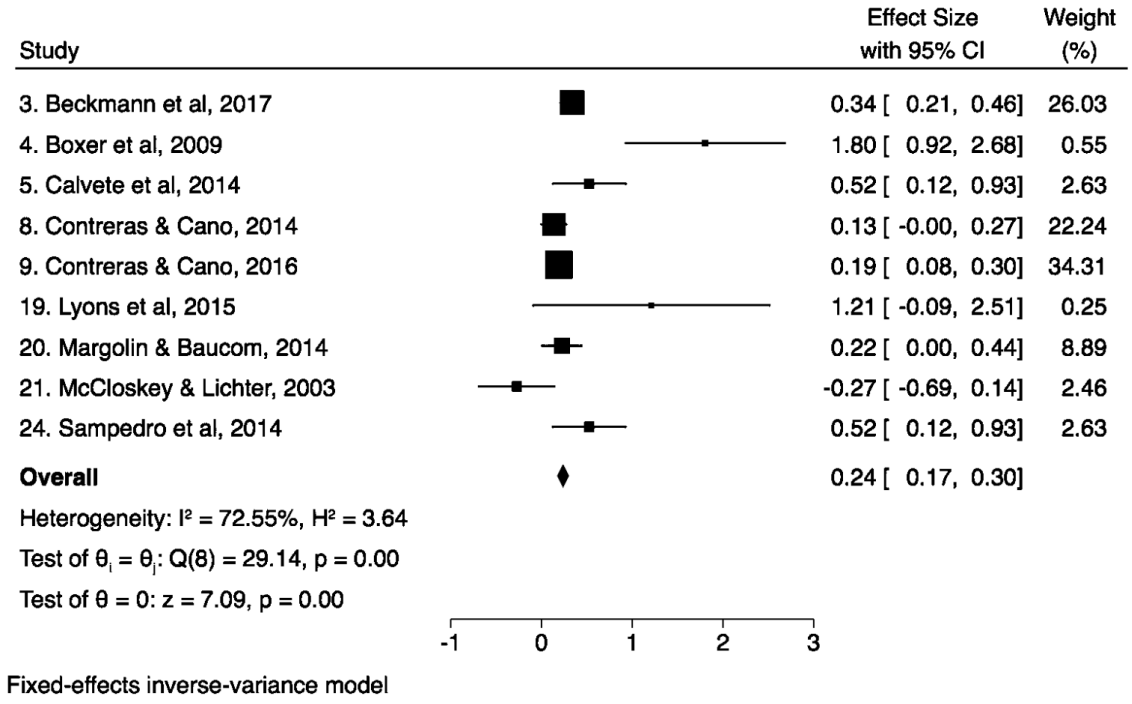


Figure 7. Forest plot of influence of direct victimisation on physical CPVA, Fisher's Z correlation effect size metric

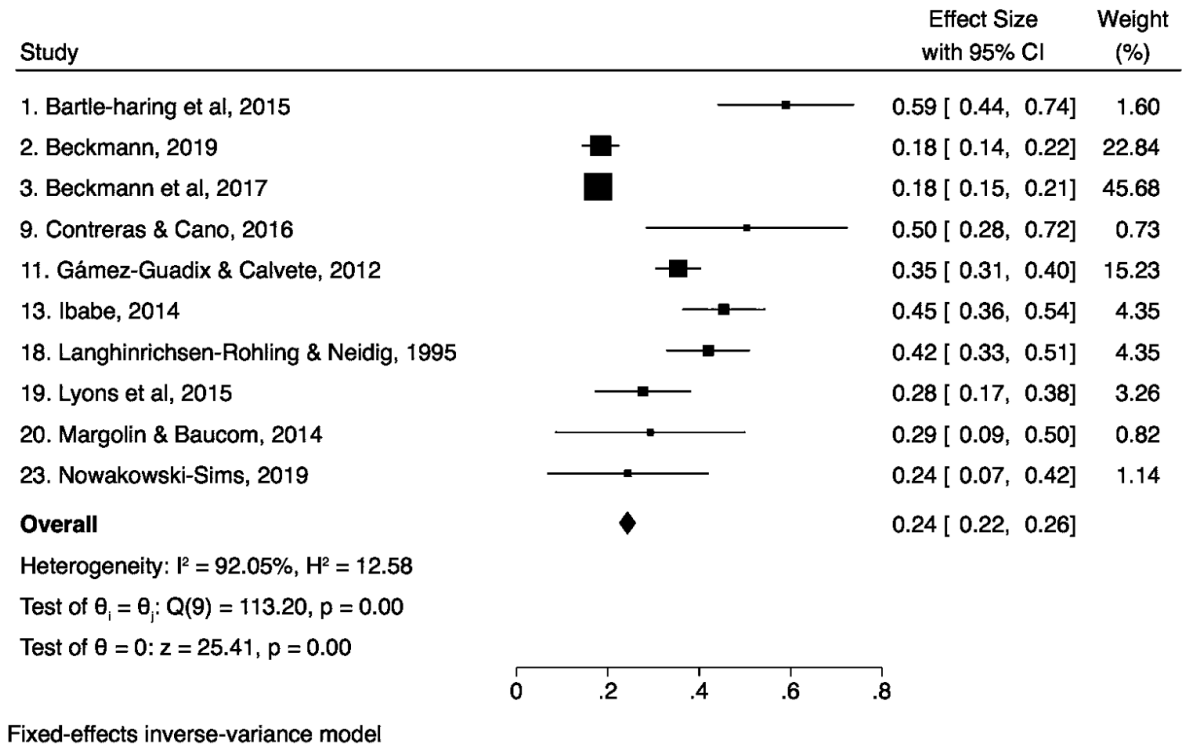
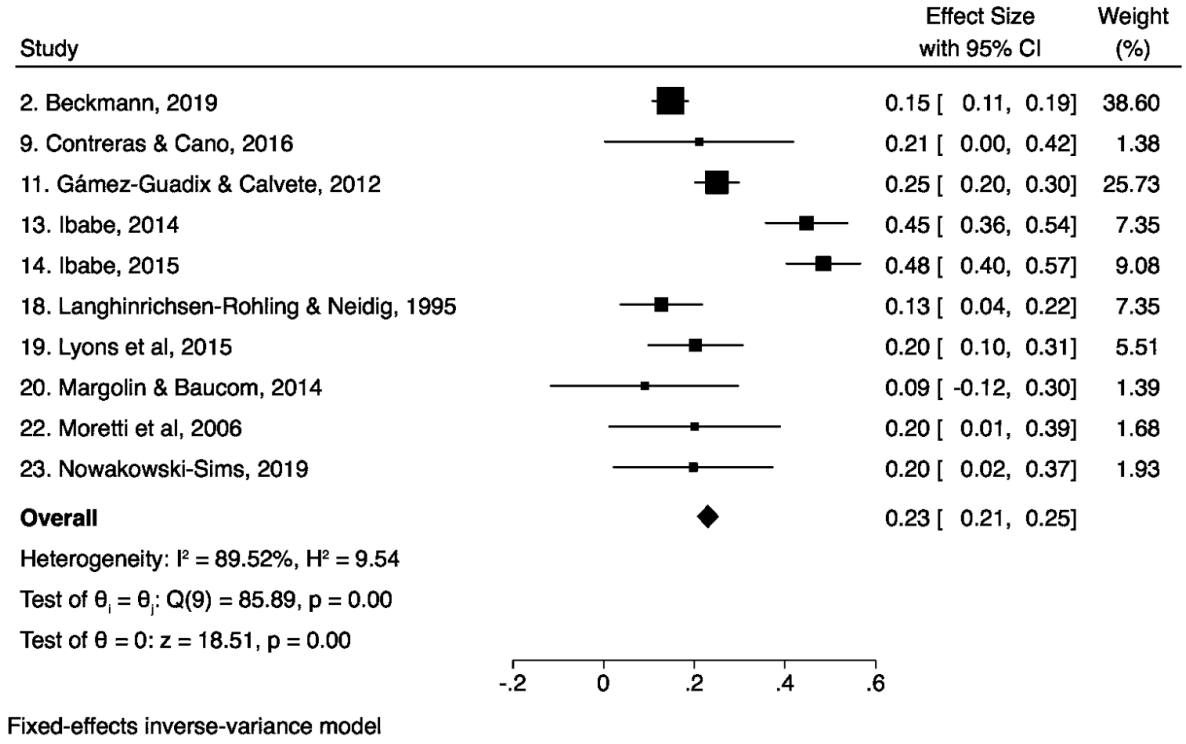
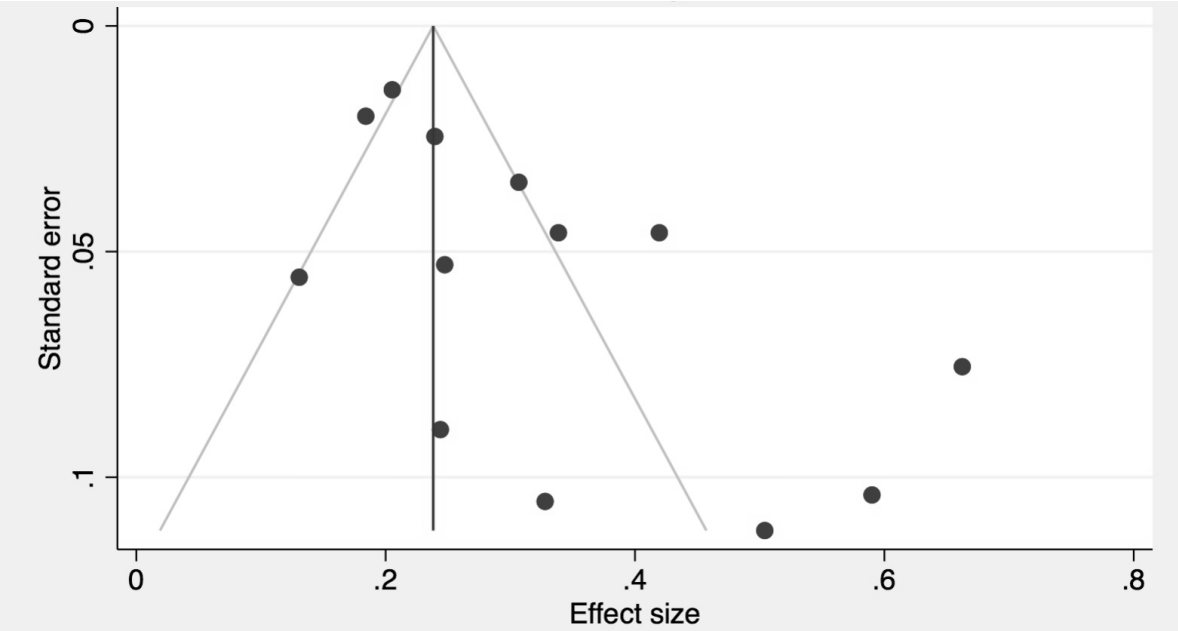


Figure 8. Forest plot of influence of exposure to domestic violence on physical CPVA, Fisher's Z correlation effect size metric

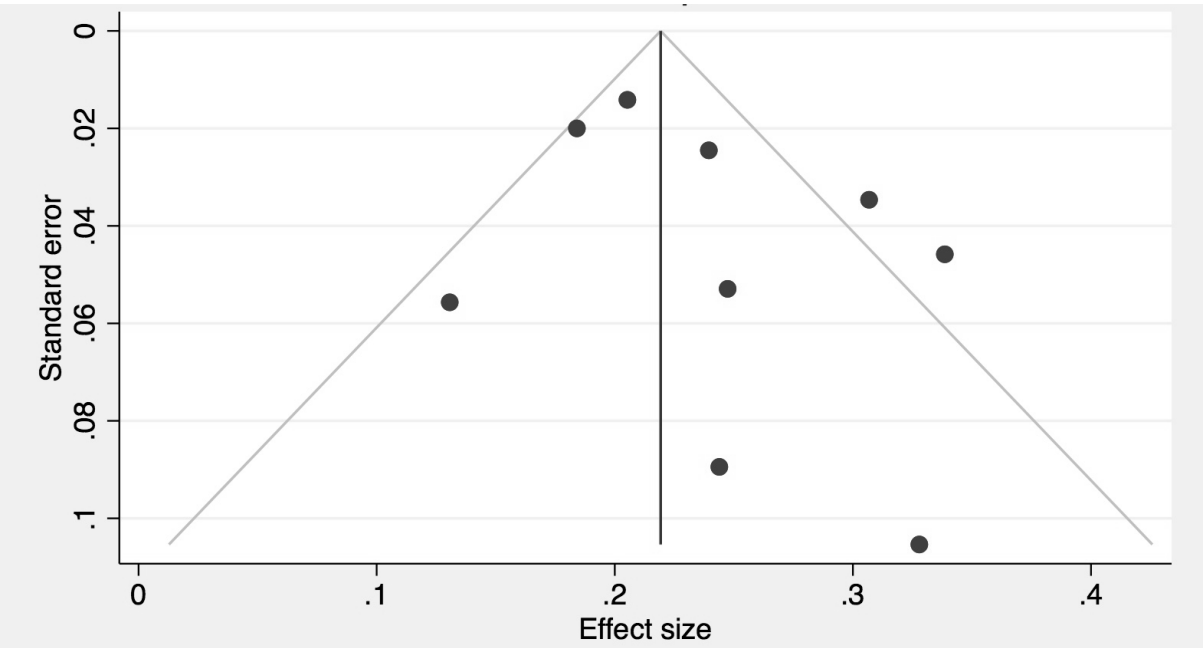


Appendix H: Funnel Plots

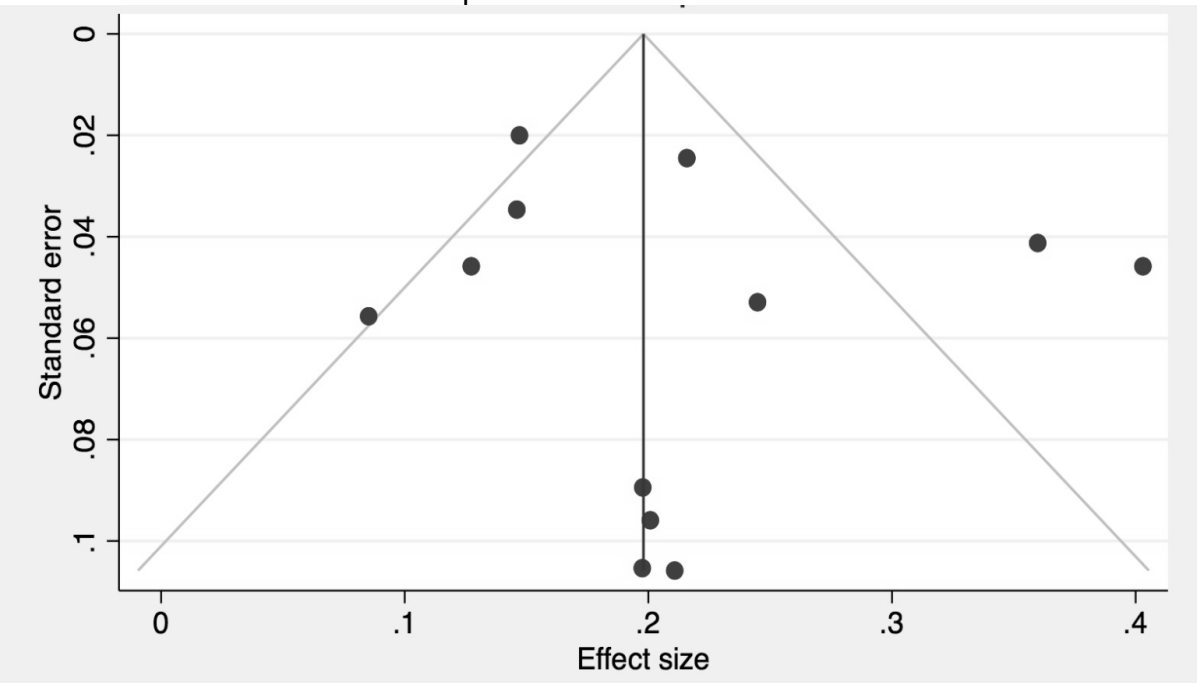
Plot 1. Funnel plot (including outliers) of Fisher's Z correlation effect size metric and standard error of model overall childhood maltreatment and overall CPVA



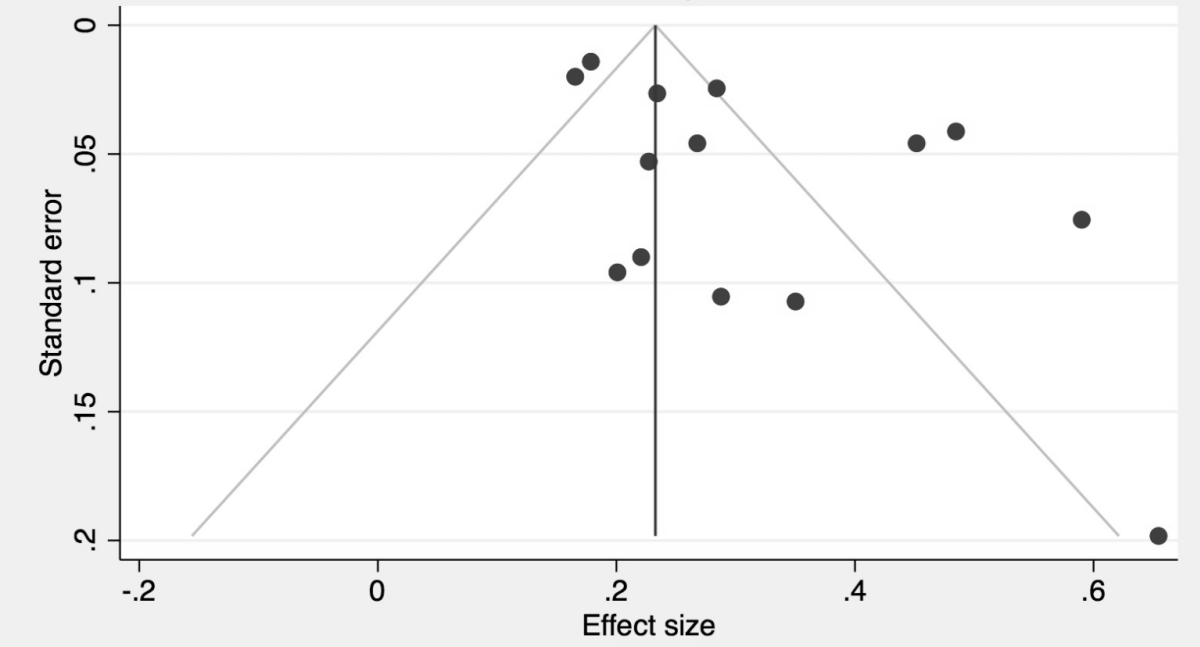
Plot 2. Funnel plot (including outliers) of Fisher's Z correlation effect size metric and standard error of model direct victimisation and overall CPVA



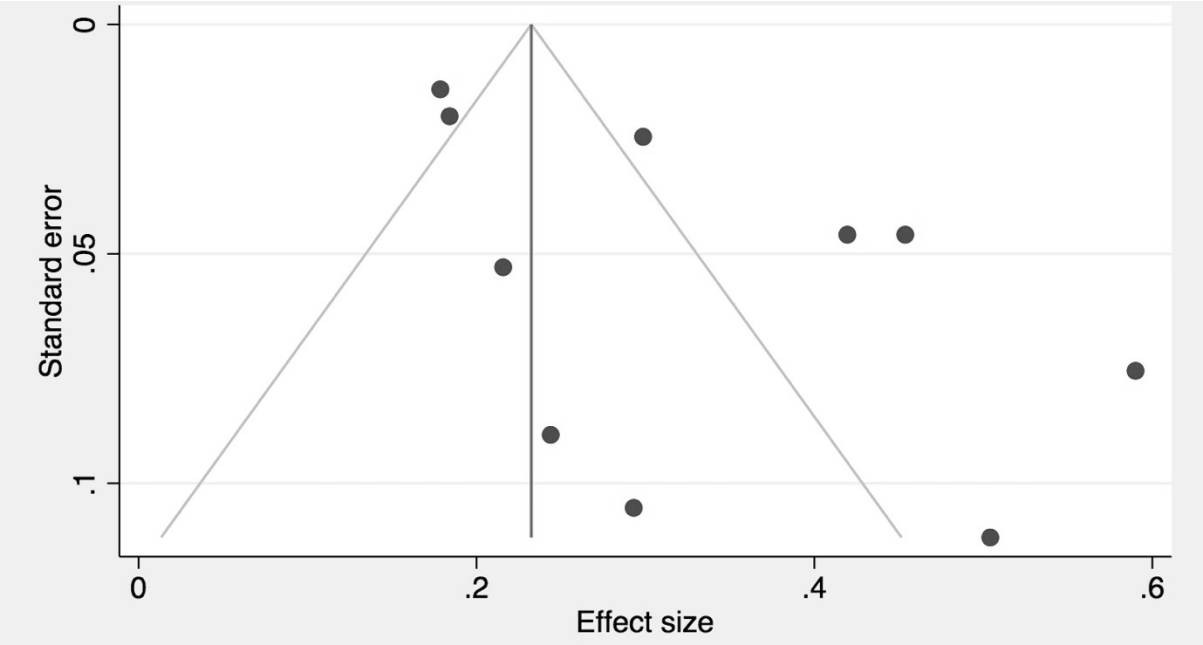
Plot 3. Funnel plot (including outliers) of Fisher's Z correlation effect size metric and standard error of model exposure to domestic violence and overall CPVA



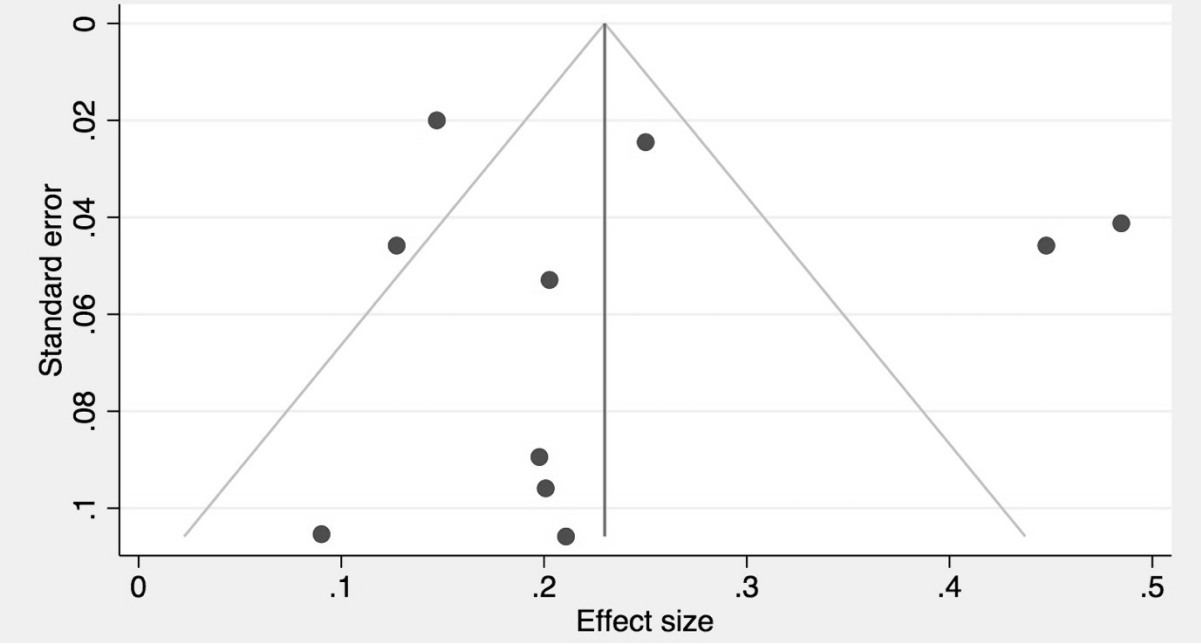
Plot 4. Funnel plot (including outliers) of Fisher's Z correlation effect size and standard error of model overall childhood maltreatment and physical CPVA



Plot 5. Funnel plot (including outliers) of Fisher's Z correlation effect size metric and standard error of model direct victimisation and physical CPVA



Plot 6. Funnel plot (including outliers) of Fisher's Z correlation effect size metric and standard error of model exposure to domestic violence and physical CPVA



Appendix I: Sensitivity Analyses for Pooled Estimates With and Without Outliers

Note. Group 1 = Pooled estimates without outliers; Group 3 = Pooled estimates with outliers

Figure 1. Forest plot of comparison between no outlier and with outliers for influence of overall childhood maltreatment on overall CPVA, Fisher's Z correlation effect size metric

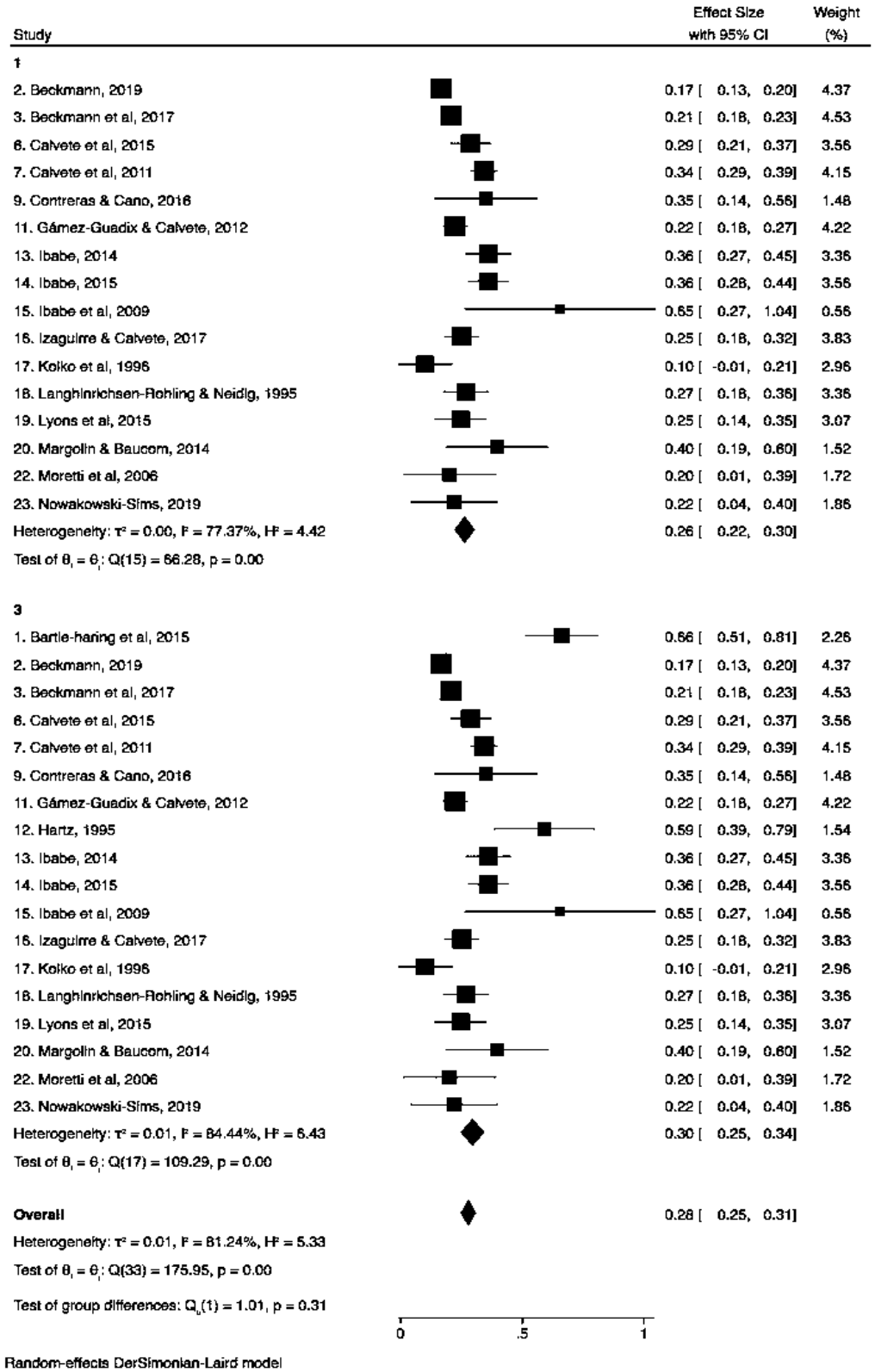


Figure 2. Forest plot of comparison between no outlier and with outliers for influence of overall childhood maltreatment on overall CPVA, (logged) OR effect size metric

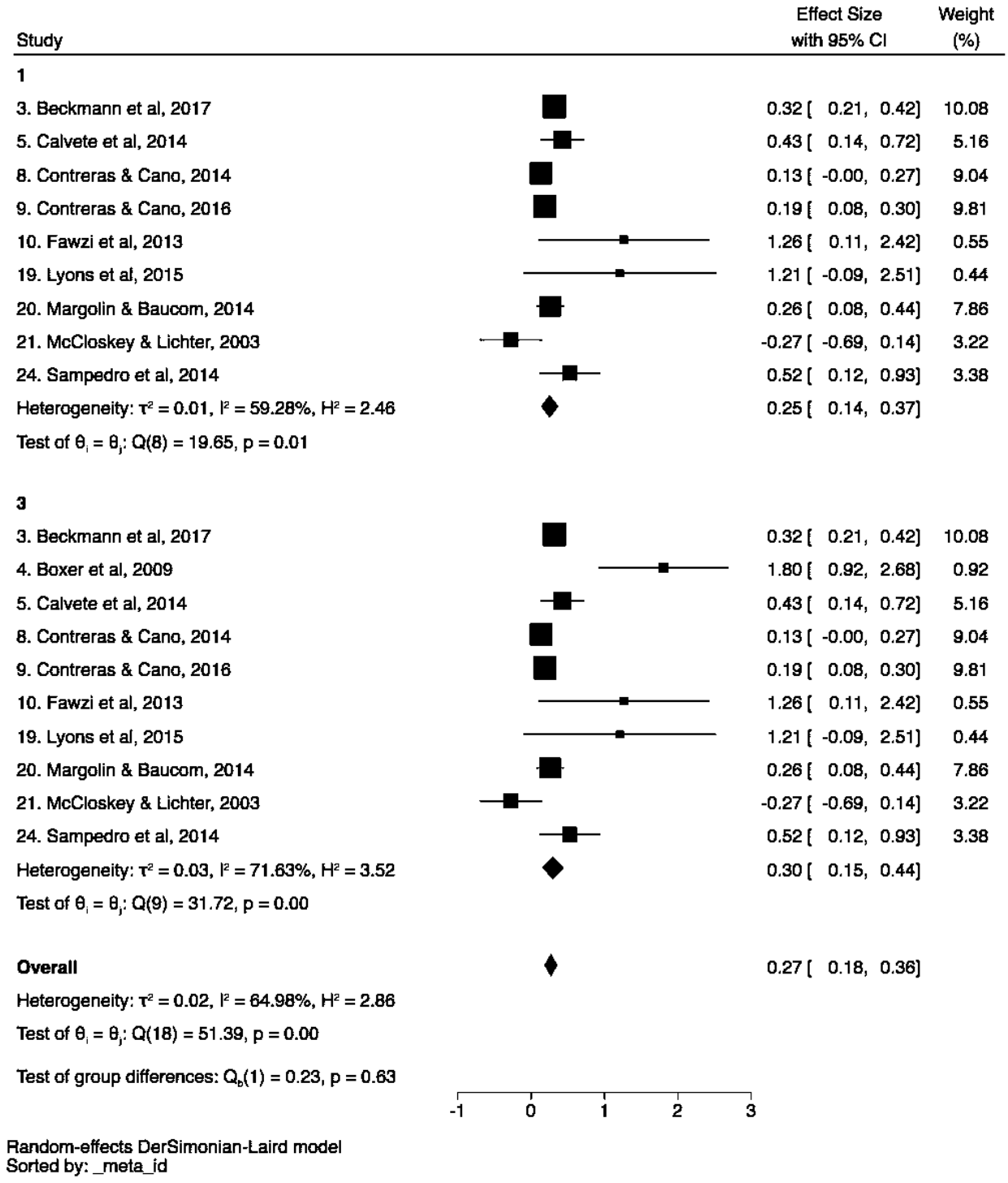


Figure 3. Forest plot of comparison between no outlier and with outliers for influence of direct victimisation on overall CPVA, Fisher's Z correlation effect size metric

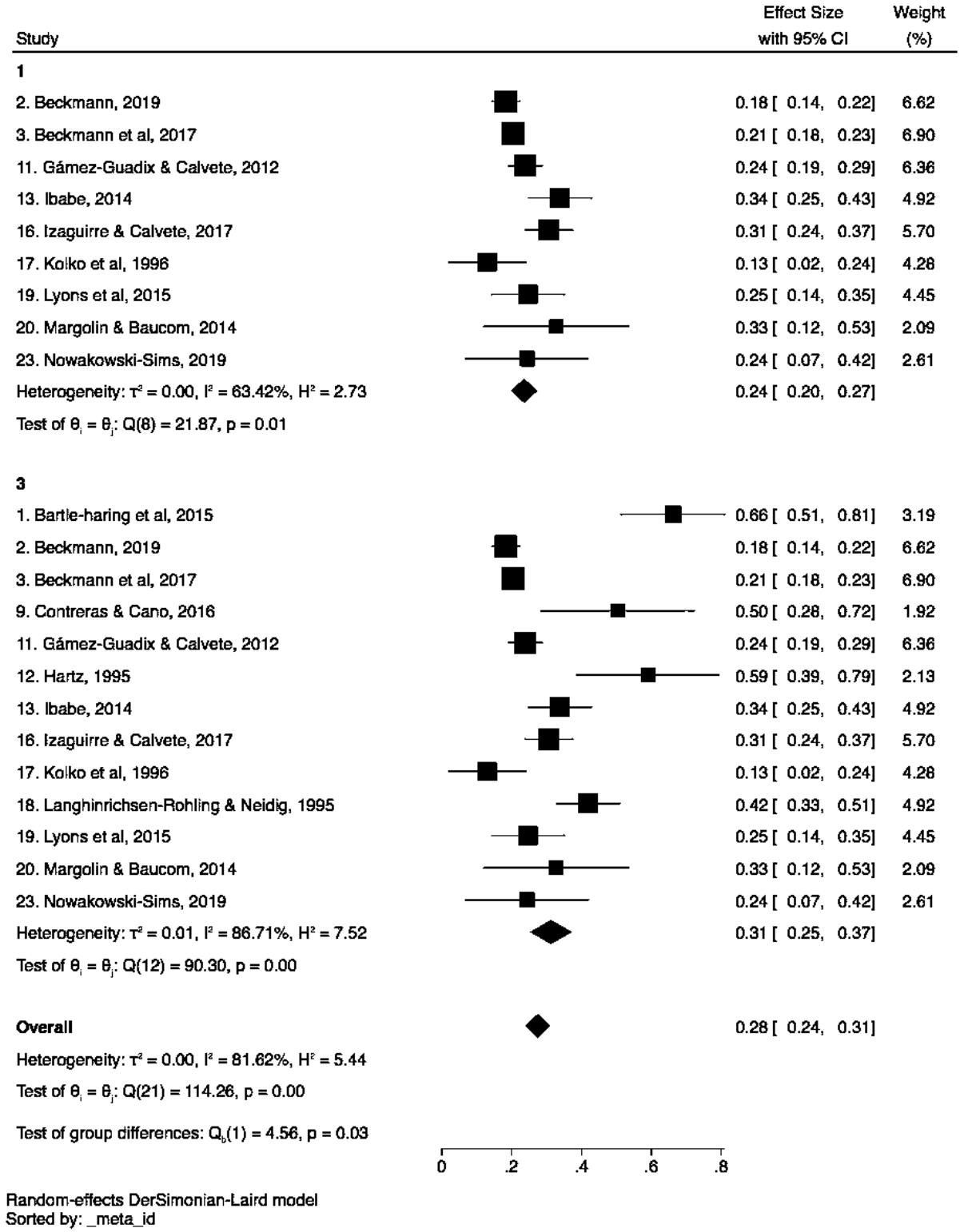


Figure 4. Forest plot of comparison between no outlier and with outliers for influence of exposure to violence on overall CPVA, Fisher's Z correlation effect size metric

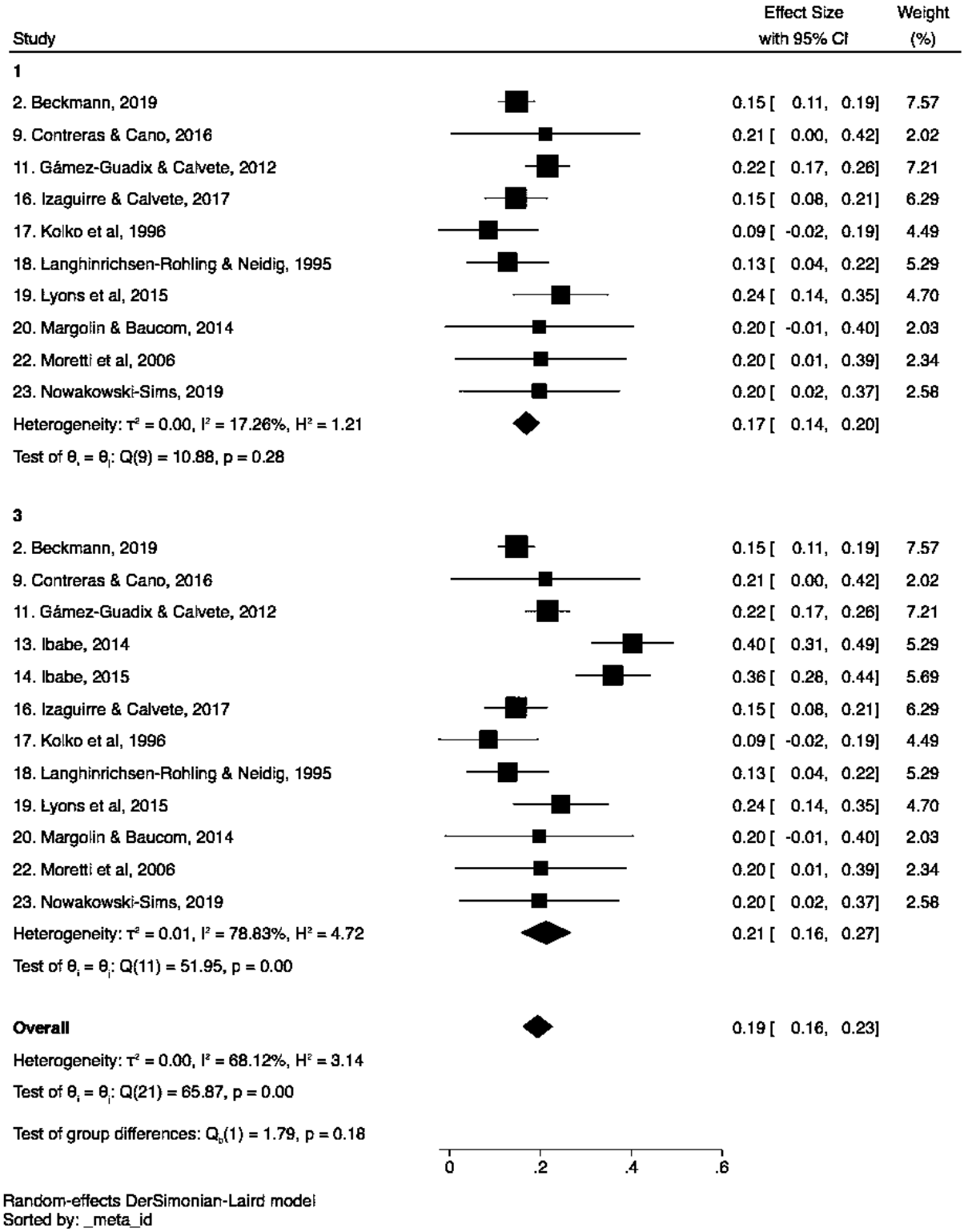


Figure 5. Forest plot of comparison between no outlier and with outliers for influence of overall childhood maltreatment on physical CPVA, Fisher's Z correlation effect size metric

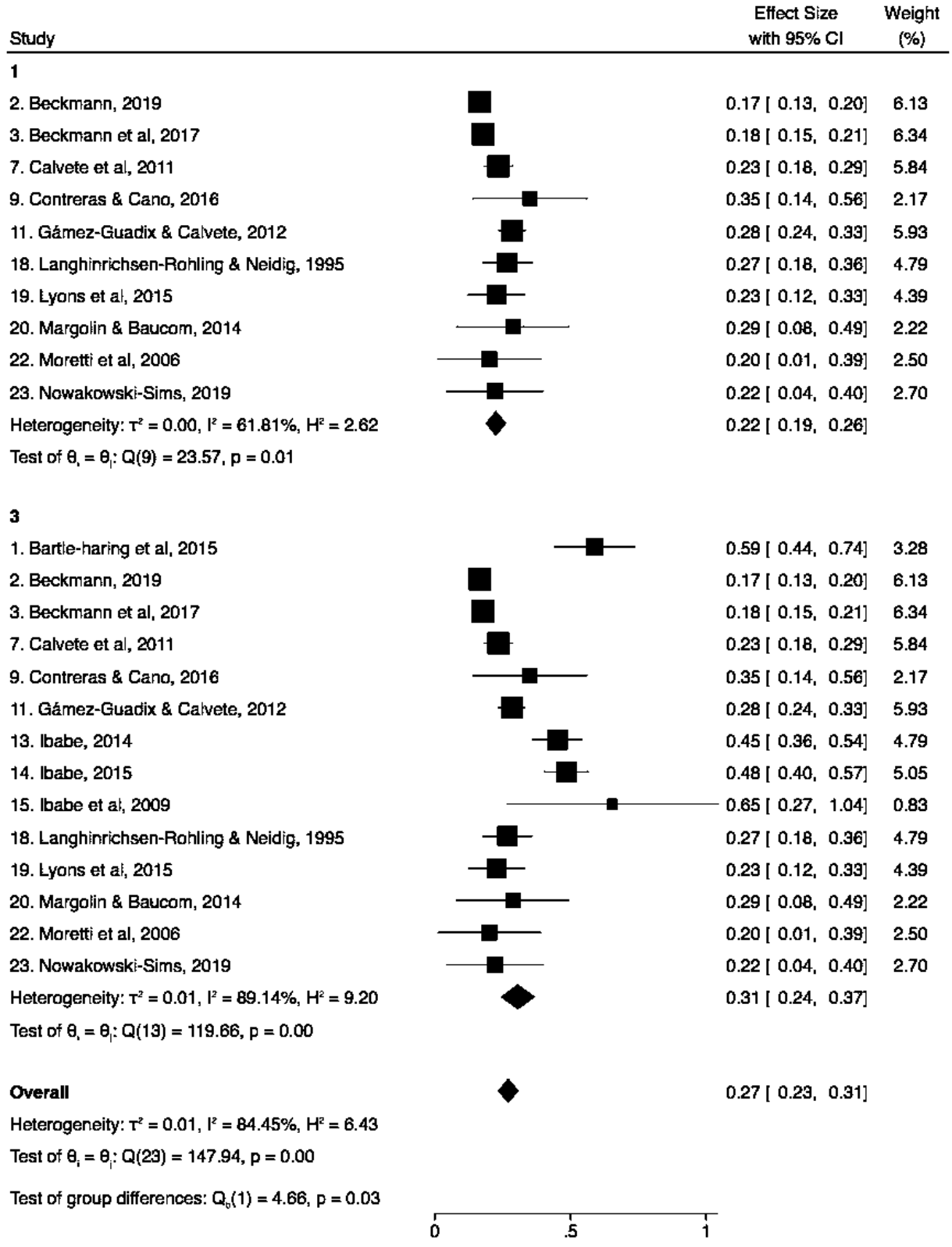


Figure 6. Forest plot of comparison between no outlier and with outliers for influence of overall childhood maltreatment on physical CPVA, (logged) OR effect size metric

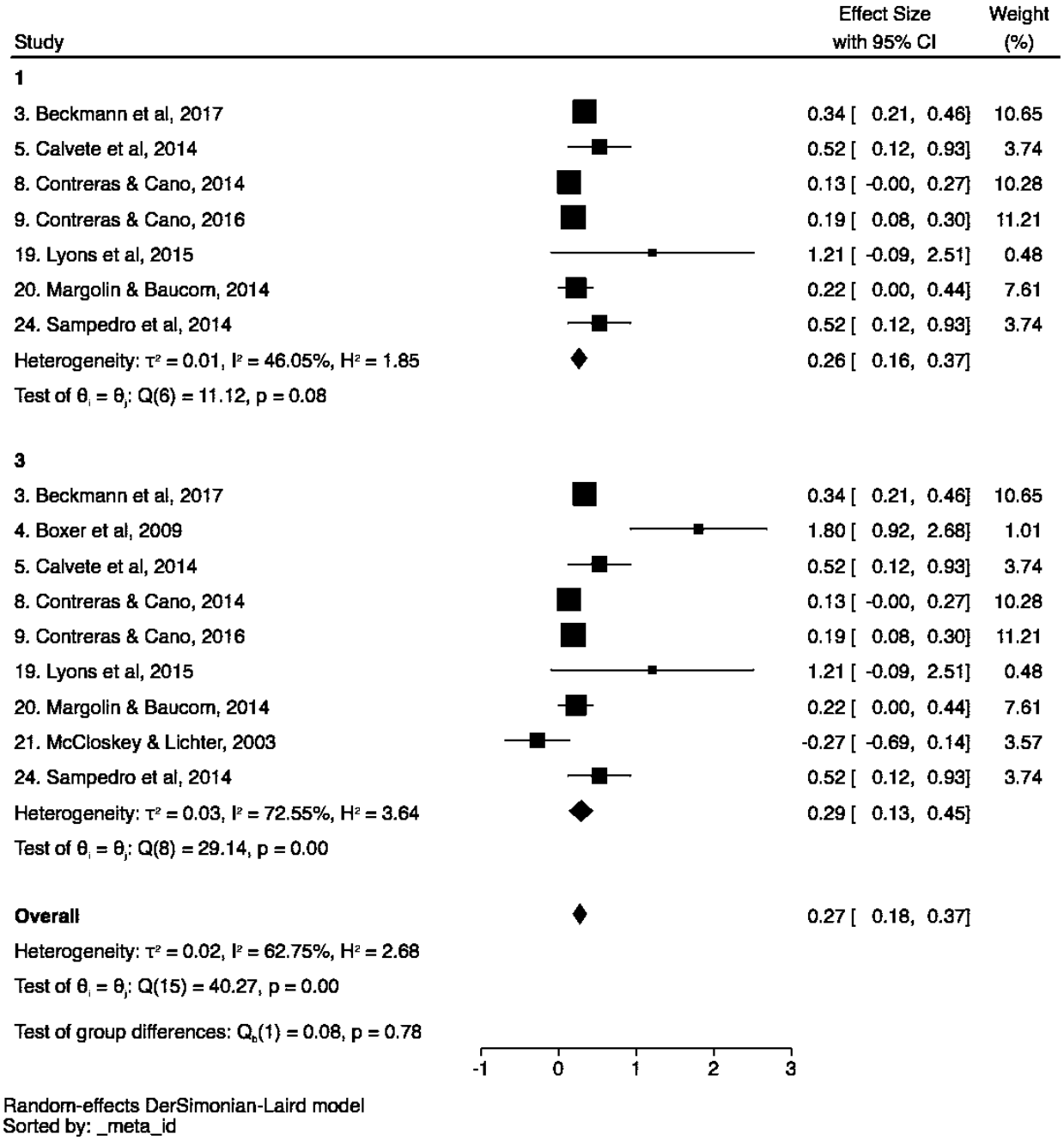


Figure 7. Forest plot of comparison between no outlier and with outliers for influence of direct victimisation on physical CPVA, Fisher's Z correlation effect size metric

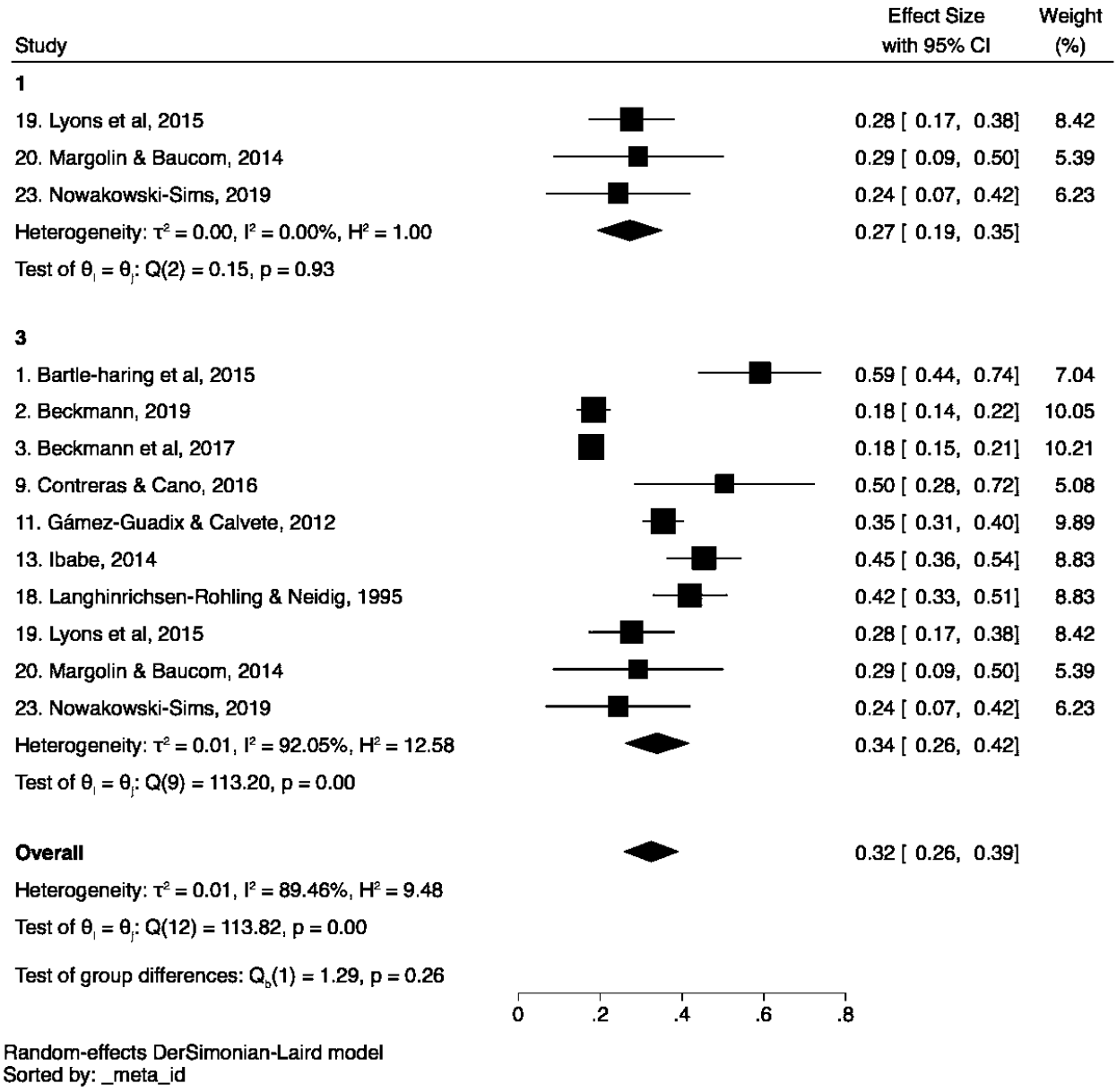
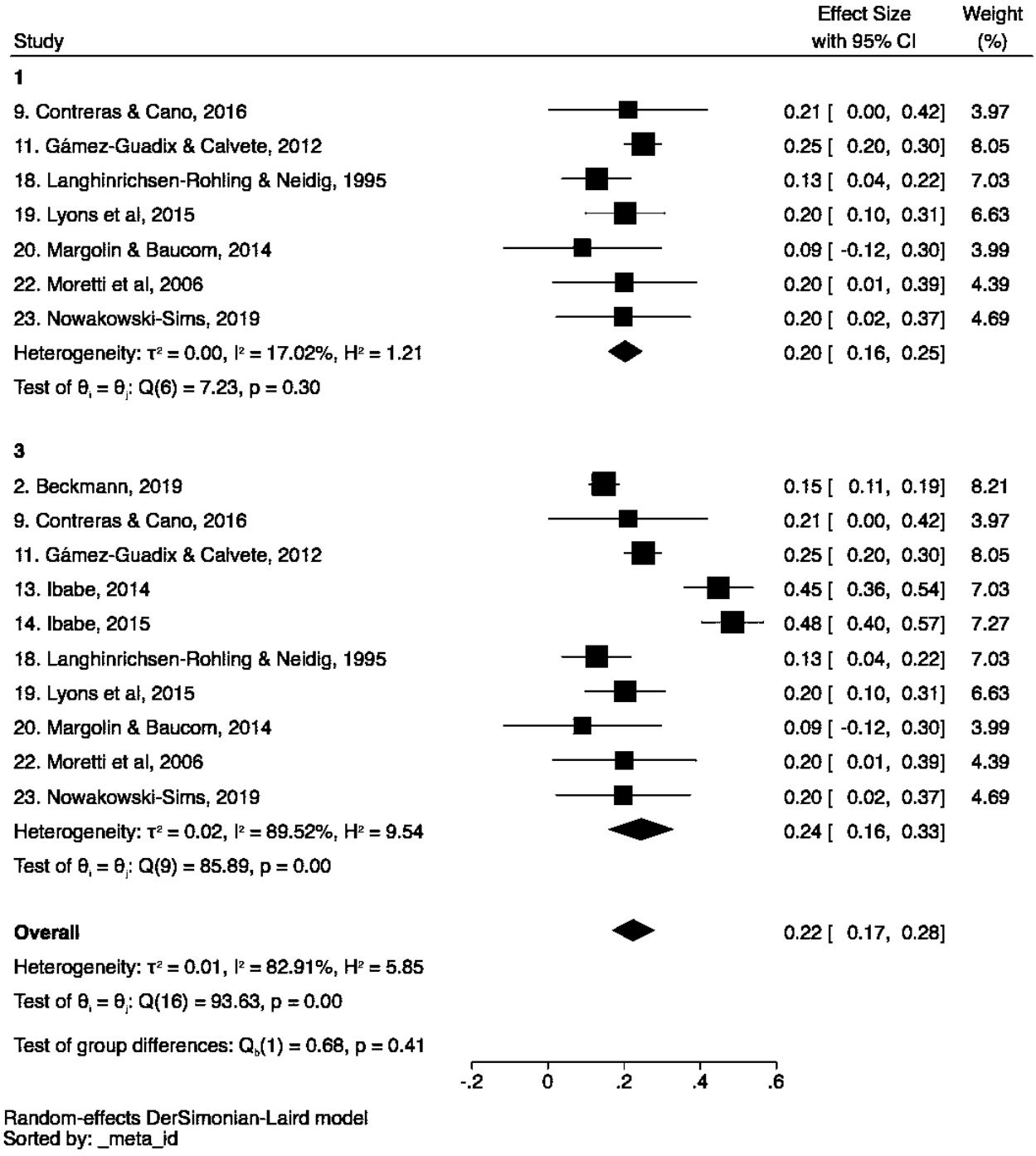


Figure 8. Forest plot of comparison between no outlier and with outliers for influence of exposure to violence on physical CPVA, Fisher's Z correlation effect size metric



Appendix J: Subgroup Analysis Forest Plots

Note.

Group 0 = general public sample

Group 1 = targeted/referred sample (clinical samples, at-risk individuals or offenders)

Figure 1. Forest plot (including outliers) of comparison of sample population for influence of overall childhood maltreatment on overall CPVA, Fisher's Z correlation effect size metric

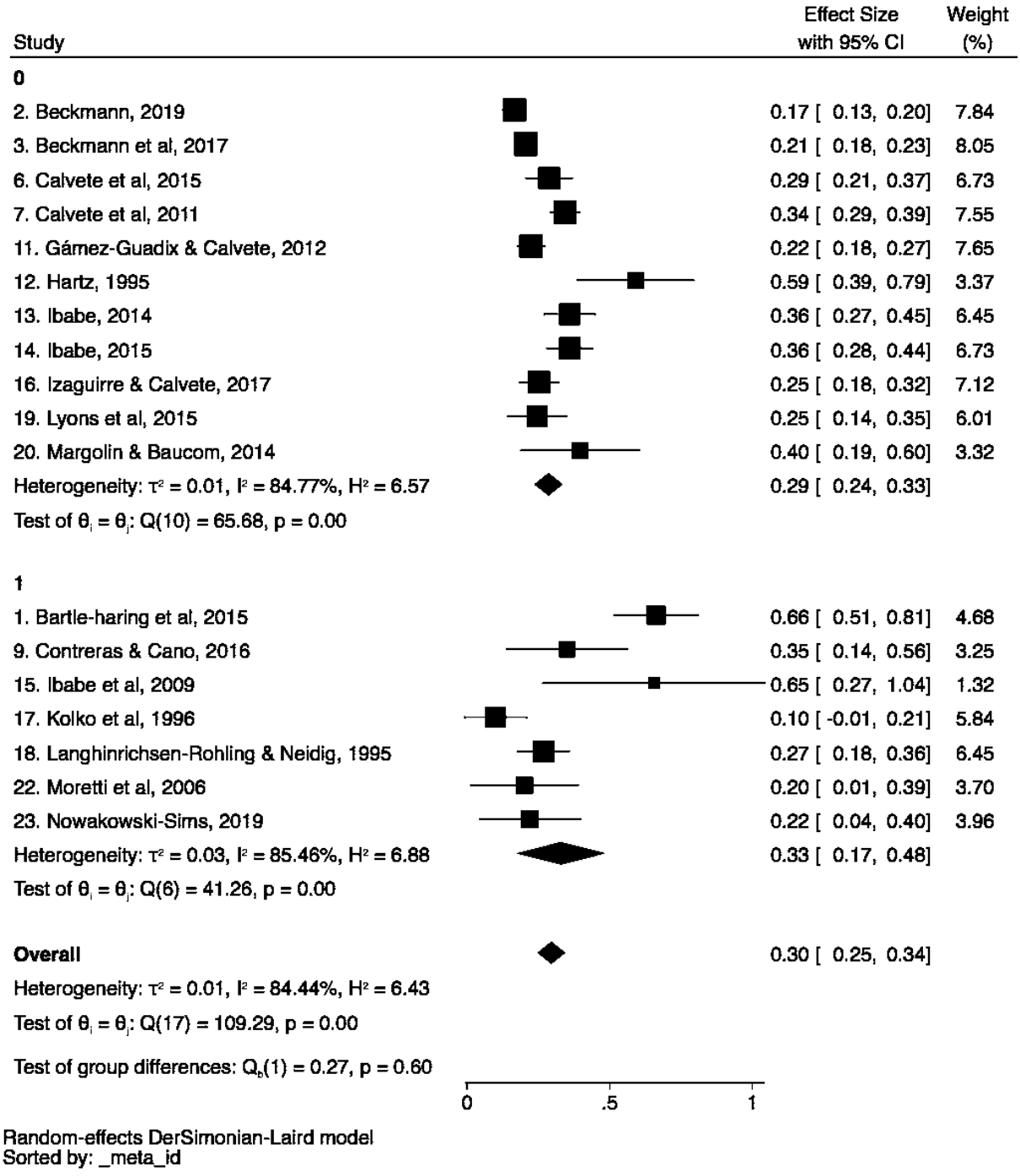


Figure 2. Forest plot (including outliers) of comparison of sample population for influence of overall childhood maltreatment on overall CPVA, (logged) odds ratio effect size metric

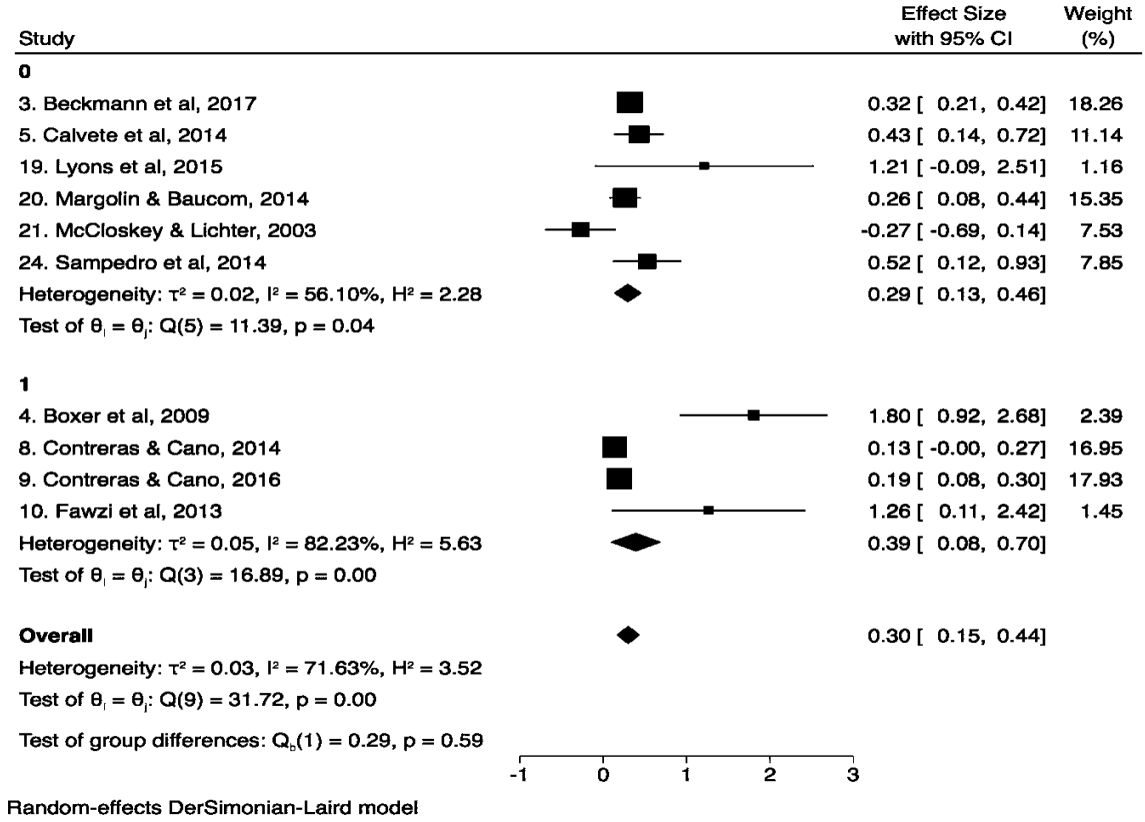


Figure 3. Forest plot (including outliers) of comparison of sample population for influence of exposure to domestic violence on overall CPVA, Fisher's Z correlation effect size metric

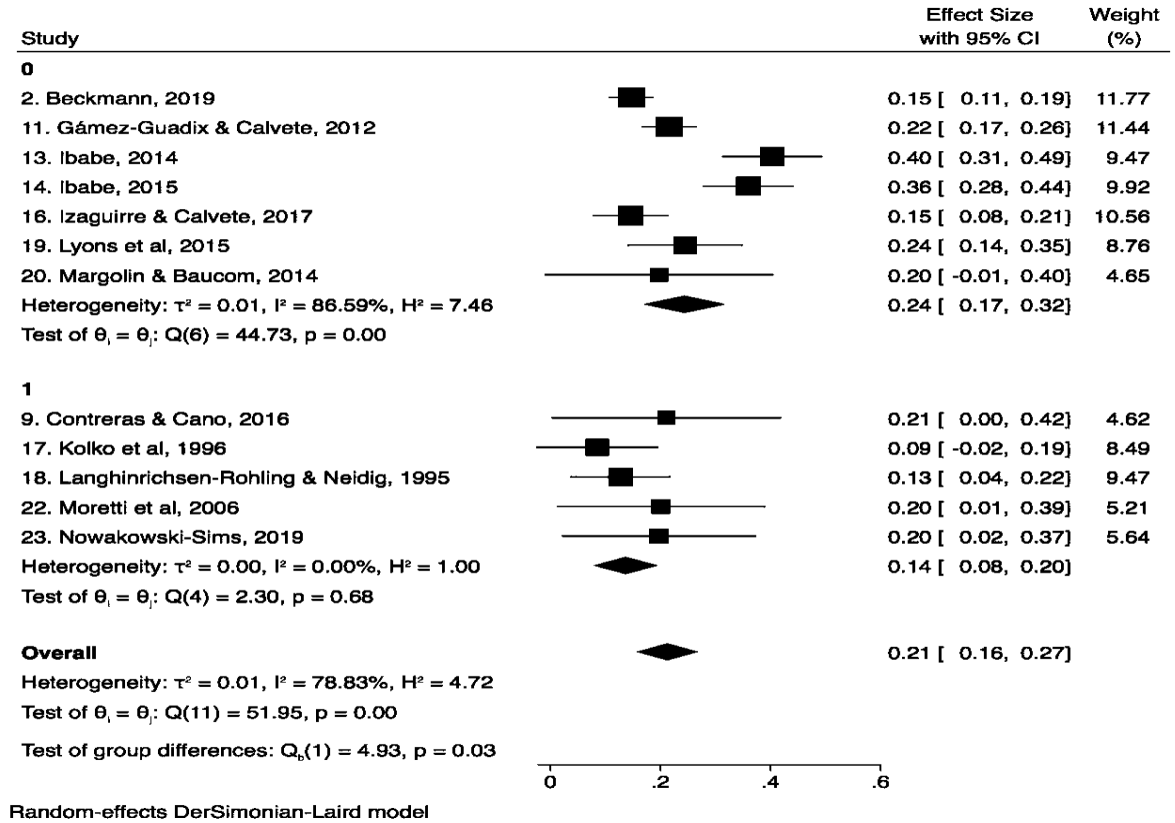


Figure 4. Forest plot (excluding outliers) of comparison of sample population for influence of overall childhood maltreatment on physical CPVA, Fisher's Z correlation effect size metric

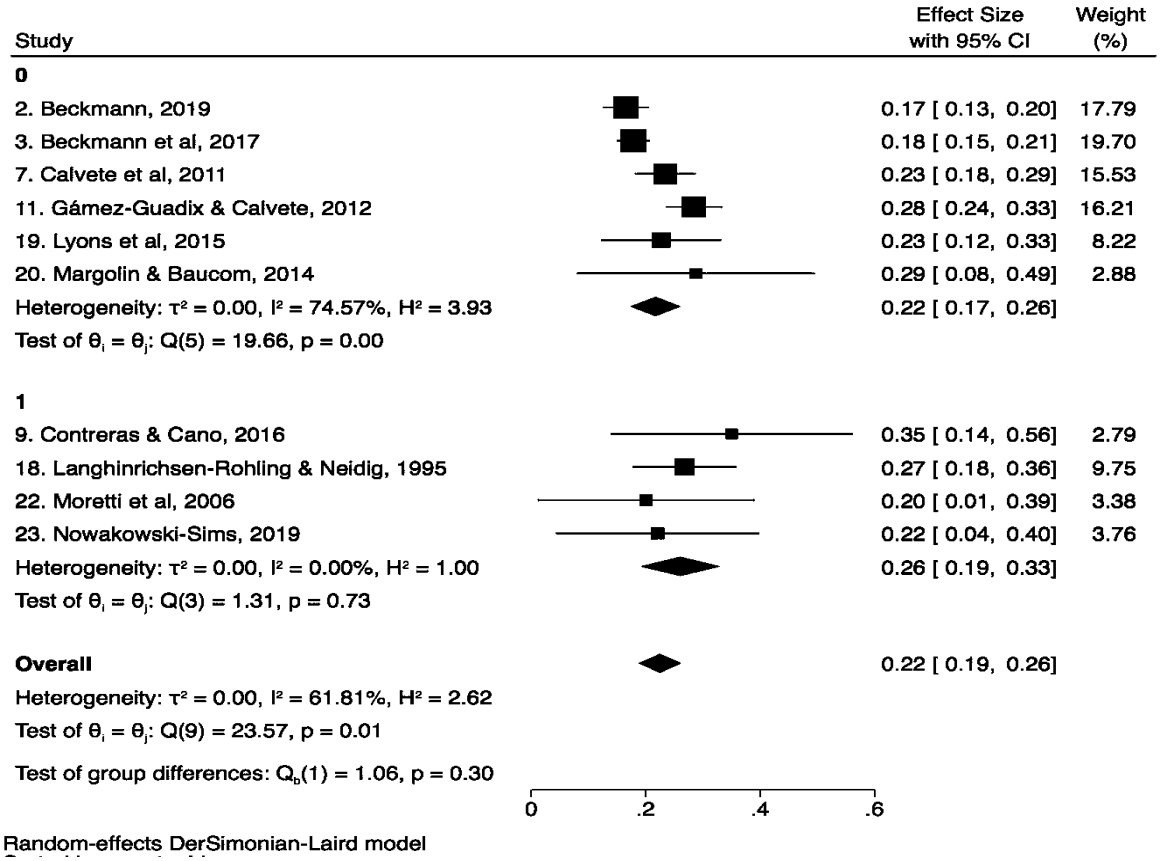


Figure 5. Forest plot (including outliers) of comparison of sample population for influence of direct victimisation on physical CPVA, Fisher's Z correlation effect size metric

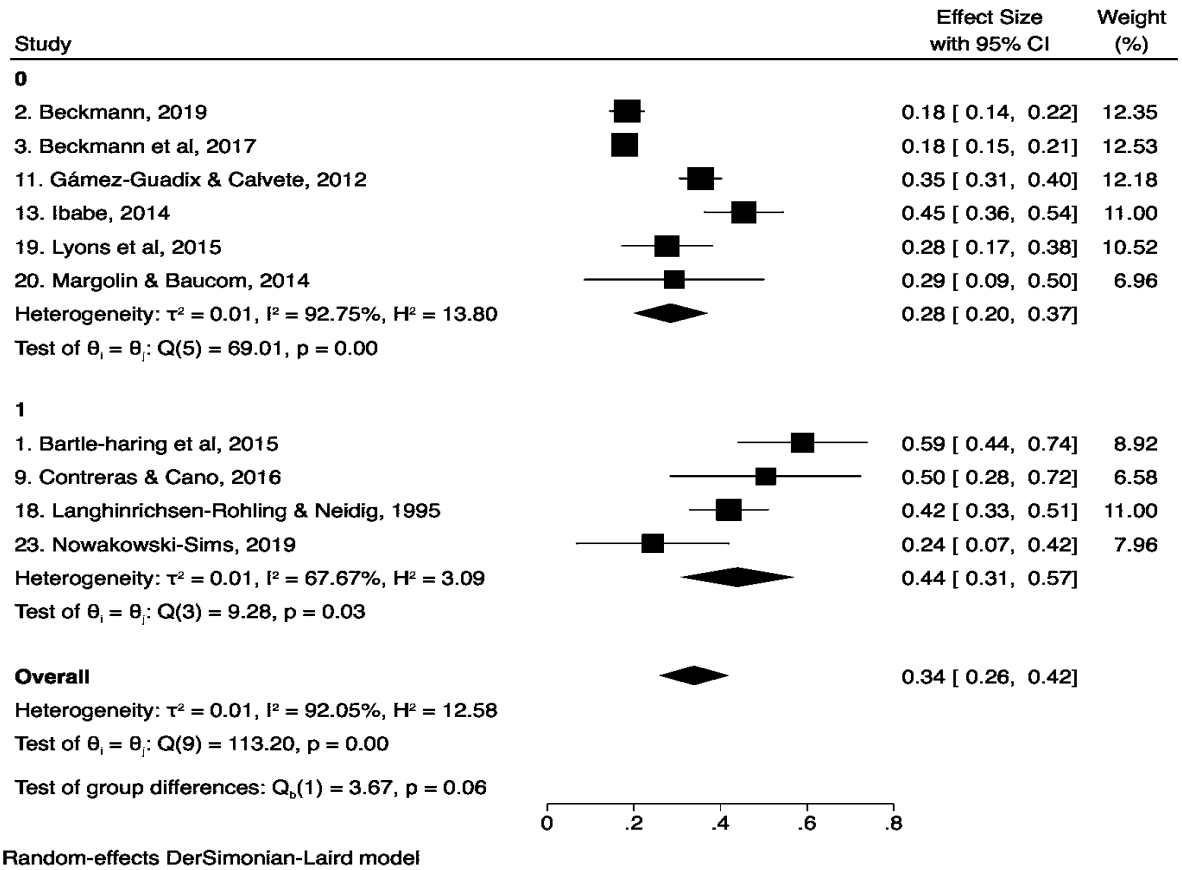
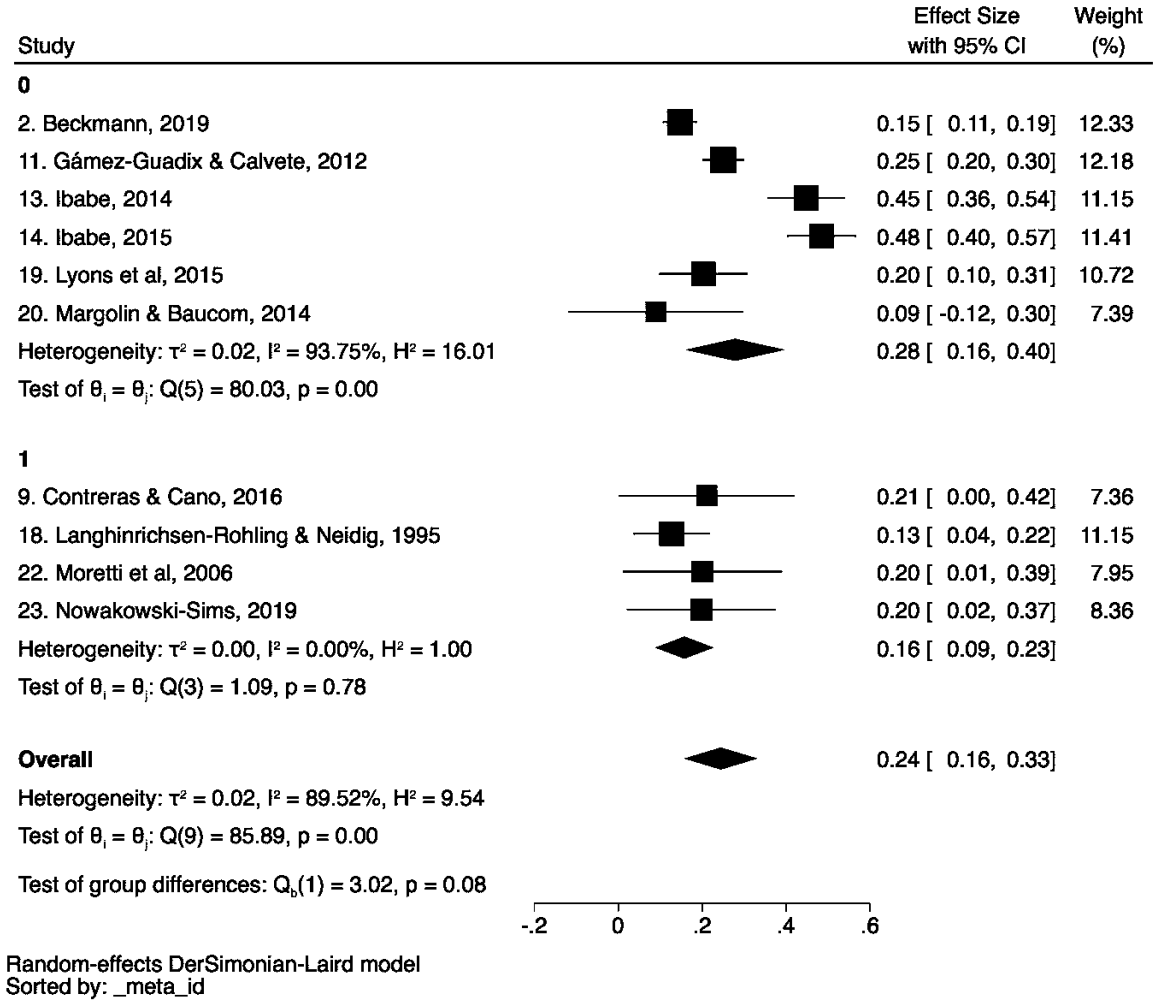


Figure 6. Forest plot (including outliers) of comparison of sample population for influence of exposure to domestic violence on physical CPVA, Fisher's Z correlation effect size metric



Primary Study One and Two Appendices

Appendix K: Demographic Questionnaire

1) How old are you?

2) What is your gender?
   - Male
   - Female
   - Other
   - Prefer not to say

3) What best describes your family?
   - Intact family (i.e. birth parents and child(ren) live together)
   - Lone mother
   - Lone father
   - Mother and step-parent
   - Father and step-parent
   - Blended family - birth mother, a step-parent and their children from a previous relationship
   - Blended family - birth father, a step-parent and their children from a previous relationship;
   - Same sex parents and children
   - Foster family
   - Adoptive family
   - Grandparents only
   - Other (Please specify)

4) Who do you live with? (please think of who you live with most of the time and tick all that apply)
   - No one
   - Partner or boy/girlfriend
   - My own children
   - Mother/female guardian
   - Father/male guardian
   - Step-caregiver(s)'s partner
   - Step-father/mother's partner
   - Foster parent(s)
   - Brother/sister(s) (incl. adopted)
   - Step-brother/sister(s)
   - Foster brother/sister(s)
   - Brother/sister(s)-in-law
   - Grandparent(s)
   - Other relative(s) (please specify)
   - Other non-relative(s) (please specify)

5) Who is your present primary caregiver(s)? (please tick all that apply)
   - Mother/female guardian
   - Father/male guardian
   - Step-caregiver(s)'s partner
   - Step-father/mother's partner
   - Grandparent(s)
   - Foster parent(s)
   - Other (Please specify)

6) Who was your primary caregiver(s) during your childhood (prior 18 years old)? (please tick all that apply)
   - Mother/female guardian
   - Father/male guardian
   - Step-caregiver(s)'s partner
   - Step-father/mother's partner
   - Grandparent(s)
   - Foster parent(s)
   - Other (Please specify)

7) What is your highest level of education?
   - No qualifications;
   - Secondary school (GCSE or equivalent);
   - A-levels or equivalent;
   - Undergraduate degree;
   - Postgraduate qualification;
   - Other (please specify)

8) How would you describe your employment status?
   - Working full-time (30 hrs/wk +);
   - Working part-time (8-29 hrs/wk);
   - Not working – unemployed
   - Not working – student;
   - Not working – volunteering;
   - Not working – others (please specify)

9) Where are you currently residing?
   - United Kingdom – England
   - United Kingdom – Wales
   - United Kingdom – Scotland
   - United Kingdom – Northern Ireland

10) Which county are you residing at?

11) How many years have you been residing in UK? (You may put "since birth" if you have been residing in UK since birth)

12) What is your ethnicity?
   - White
   - African / Caribbean
   - Indian
   - Malay
   - Chinese
   - Middle East
   - Mixed (please specify)
   - Other (please specify)
   - Prefer not to say

Appendix L: Adapted Child-to-Parent Violence and Abuse Questionnaire

Relationship with the main carer (s) Please answer the following questions with response to all carer(s) that you currently live and have lived with for the majority of your life. This is based on your interactions with your caregiver(s) for THE PAST TWELVE MONTH.	Never	Occasionally	Most weeks	Daily
1. Have you ever called your caregiver(s) names (such as calling him/her crazy) or swear (use of vulgarities) at him/her?	1	2	3	4
2. Have you ever criticised and/or put your caregiver(s) down?	1	2	3	4
3. Have you ever screamed and/or yelled at your caregiver(s)?	1	2	3	4
4. Have you ever demeaned your caregiver(s)'s caregiving skills and/or called them a bad carer?	1	2	3	4
5. Have you ever taken your caregiver(s)'s money and/or belongings without asking him/her first?	1	2	3	4
6. Have you ever spent your caregiver(s)'s money without asking and/or informing him/her first?	1	2	3	4
7. Have you ever aggressively demanded money and/or things from your caregiver(s)?	1	2	3	4
8. Have you ever incurred debts without telling your caregiver(s) that s/he has then had to cover?	1	2	3	4
9. Have you ever threatened to harm yourself in an attempt to get what you want from your caregiver(s)?	1	2	3	4
10. Have you ever broken and/or thrown things near your caregiver(s) with the intention to upset/scare them or stop them from doing what they wanted to do?	1	2	3	4
11. Have you ever broken and/or damaged things, which were important to your caregiver(s) with the intention to upset them?	1	2	3	4
12. Have you ever bullied and/or stood over your caregiver(s)?	1	2	3	4
13. Have you ever aggressively demanded that your caregiver(s) do what you want?	1	2	3	4
14. Have you ever hurt and/or killed any of your caregiver(s)'s pets?	1	2	3	4

15. Have you ever threatened to kill and/or hurt your caregiver(s) or other family members?	1	2	3	4
16. Have you hit, punched, slapped, kicked your caregiver(s) and/or twisted his/her arm?	1	2	3	4
17. Have you ever choked your caregiver(s)?	1	2	3	4
18. Have you ever shoved, pushed and/or grabbed your caregiver(s)?	1	2	3	4
19. Have you ever hit your caregiver(s) a hard and/or sharp object?	1	2	3	4
20. Have you ever hurt your caregiver(s) so severely that it left a bruise?	1	2	3	4
21. Have you ever controlled your caregiver(s) actions, such as stop them from doing what they wanted to do?	1	2	3	4
22. Have you made comments to scare your caregiver(s)	1	2	3	4
This is a control question. Please mark 'occasionally' and move on.	1	2	3	4

Appendix M: Adverse Childhood Experience-Revised

1) Before your 18th birthday, did a parent/caregiver in the household **often or very often**
   Swear at you, insult you, put you down or humiliate you?
   OR
   Act in a way that made you afraid that you might be physically hurt?
   YES/NO

[If you have selected "YES", please specify your relationship to that adult in your household.]

2) Before your 18th birthday, did a parent /caregiver in the household **often or very often**
   Push, grab, slap or throw something at you?
   OR
   Ever hit you so hard that you had marks or were injured?
   YES/NO

[If you have selected "YES", please specify your relationship to that adult in your household.]

3) Before your 18th birthday, did a parent/caregiver in the household **ever**
   Touch or fondle you or have you touch their body in a sexual way?
   OR
   Attempt or actually have oral, anal, or vagina intercourse with you?
   YES/NO

[If you have selected "YES", please specify your relationship to that adult in your household.]

4) Before your 18th birthday, did you **often or very often** feel that
   No one in your family loved you or thought you were important or special?
   OR
   Your family didn't look out for each other, feel close to each other, or support each other?
   YES/NO

[If you have selected "YES", please specify your relationship to that adult in your household.]

5) Before your 18th birthday, did you **often or very often** feel that
   You didn't have enough to eat, had to wear dirty clothes, and had no one to protect you?
   OR
   Your parent/caregiver were too drunk or high to take care of you or take you to the doctor if you needed it?
   YES/NO

[If you have selected "YES", please specify your relationship to that adult in your household.]

Appendix N: Impact of Event Scale-Revised

Below is a list of difficulties people sometimes have after stressful life events. Please read each item, and then indicate how distressing each difficulty has been for you **DURING THE PAST SEVEN DAYS** with respect to any stressful or adverse experience (including childhood experience).

How much have you been distressed or bothered by these difficulties?

[If you do not have any stressful or adverse experiences, you may put "not applicable" for all options].

	Not at all	A little bit	Moderately	Quite a bit	Extremely	Not Applicable
1. Any reminder brought back feelings about it	0	1	2	3	4	5
2. I had trouble staying asleep	0	1	2	3	4	5
3. Other things kept making me think about it.	0	1	2	3	4	5
4. I felt irritable and angry	0	1	2	3	4	5
5. I avoided letting myself get upset when I thought about it or was reminded of it	0	1	2	3	4	5
6. I thought about it when I didn't mean to	0	1	2	3	4	5
7. I felt as if it hadn't happened or wasn't real.	0	1	2	3	4	5
8. I stayed away from reminders of it.	0	1	2	3	4	5
9. Pictures about it popped into my mind.	0	1	2	3	4	5
10. I was jumpy and easily startled.	0	1	2	3	4	5
11. I tried not to think about it.	0	1	2	3	4	5
12. I was aware that I still had a lot of feelings about it, but I didn't deal with them.	0	1	2	3	4	5
13. My feelings about it were kind of numb.	0	1	2	3	4	5
14. I found myself acting or feeling like I was back at that time.	0	1	2	3	4	5
15. I had trouble falling asleep.	0	1	2	3	4	5
16. I had waves of strong feelings about it.	0	1	2	3	4	5
17. I tried to remove it from my memory.	0	1	2	3	4	5
This is a control question. Please mark ' A little bit' and move on.	0	1	2	3	4	5
18. I had trouble concentrating.	0	1	2	3	4	5
19. Reminders of it caused me to have physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart.	0	1	2	3	4	5
20. I had dreams about it.	0	1	2	3	4	5
21. I felt watchful and on-guard.	0	1	2	3	4	5

22. I tried not to talk about it.	0	1	2	3	4	5

Are your answers related to the adverse experience answered in the previous page?

- No, none of them
- Yes, some of them
- Yes, most of them
- Yes, all of them
- I do not have any stressful or adverse experiences

Appendix O: Attitudes and Belief Scale 2-Abbreviated Version

Please rate how strongly you agree to each statement.		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	It's unbearable being uncomfortable, tense or nervous and I can't stand it when I am.	1	2	3	4	5
2	If important people dislike me, it is because I am an unlikable bad person.	1	2	3	4	5
3	It's unbearable to fail at important things, and I can't stand not succeeding at them.	1	2	3	4	5
4	I must do well at important things, and I will not accept it if I do not do well.	1	2	3	4	5
5	I can't stand being tense or nervous and I think tension is unbearable.	1	2	3	4	5
	This is a control question. Please mark "strongly disagree" and move on.	1	2	3	4	5
6	If I do not perform well at tasks that are very important to me, it is because I am a worthless bad person.	1	2	3	4	5
7	It's awful to be disliked by people who are important to me, and it is a catastrophe if they don't like me.	1	2	3	4	5
8	It's essential to do well at important jobs; so I must do well at these things.	1	2	3	4	5
9	Sometimes I think the hassles and frustrations of everyday life are awful and the worst part of my life.	1	2	3	4	5
10	When people I like reject me or dislike me, it is because I am a bad or worthless person.	1	2	3	4	5
11	I must be successful at things that I believe are important, and I will not accept anything less than success.	1	2	3	4	5
12	If loved ones or friends reject me, it is not only bad, but the worst possible thing that could happen to me.	1	2	3	4	5

Appendix P: Information to Participants

1) Participation Information Sheet and Informed Consent Form

University of Nottingham
Centre for Forensic & Family Psychology
Division of Psychiatry & Applied Psychology
School of Medicine, Faculty of Medicine & Health Sciences

Title of Project: The impact of an individual's adverse childhood experience on one's beliefs, traumatic responses and interactions with caregiver(s).

Researcher: Liew Shi Hui (email: shihui.liew@nottingham.ac.uk)
Principal Investigator: Dr Shihning Chou (email: shihning.chou@nottingham.ac.uk)

Ethics Reference Number: FMHS 249-1802

You are being invited to participate in this research study because you are:
1) Between the ages of 18 to 25
2) Residing in United Kingdom
3) Female

If you have any questions or concerns, please do not hesitate to contact us at the above email addresses.

What is the study about?
The purpose of this research study is to understand how an individual's adverse childhood experience influences one's 1) beliefs, 2) traumatic responses and 3) interaction with one's caregivers.

This study is an internet mediated research. The online survey will take you approximately 20 minutes to complete.

If you do decide to take part, you will be asked to complete a consent form. Your participation is voluntary, and you are free to withdraw (i.e. pull out) at any point before or during the study. It will not affect you in anyway. When you choose to withdraw halfway through the survey, approval for use of your prior responses will be sought. If you choose to withdraw your consent, the responses will be deleted and not used for analysis.

However, if you complete the whole questionnaire and end the survey, it will not be possible to withdraw your consent after closing the survey and seek for the data to be destroyed. This is because, this study uses anonymous questionnaires. Hence, there will not be any identifiers linking the dataset to your identity and allowing the researchers to retrieve the correct dataset.

Will the research be of any personal benefit to me?
There is no direct personal benefit to you. However, the information that the researcher receives from this study will deepen the understanding regarding the impact of adverse childhood experiences on an individual's well-being and relationship. Based on the research findings, informed preventive and therapeutic interventions targeting an individual with adverse childhood experiences can be introduced.

What will happen to the information I provide?
All of the information that you provide during the study will be kept confidential and anonymous. Only your data from the questionnaires will be used when reporting the research findings. You will not be asked for your name or any other personal details, so it will not be possible for you to be linked with the data. Meanwhile, the survey site – hosted on a secure server - automatically logs several data, such as network address and HTTP request, when you complete the questionnaires. This information is used for system administration, for bug tracking and for producing usage statistics. The researcher and principal investigator will not have any access to this information. The UK Data Protection Act 2018 will apply to all information gathered within the questionnaires.

With regard to the safeguarding of your response, we will do everything possible to make sure your answers in this study remain anonymous. We will reduce any risks by keeping all information gathered within the questionnaires on password-locked computer files so that no data can be accessed by anyone other than the researcher and the supervisor. The data will also be stored in a thumb drive that is only accessible to the researcher and supervisor. All of the anonymous data may be stored by the university for up to 25 years and for a period of no less than 7 years after the research project finishes. However, as with any online related activity the risk of a breach is always possible.

What will you do with the data?
We collect personal data under the terms of the University's Royal Charter in our capacity as a teaching and research body to advance education and learning. Data collection on this occasion is specially for researcher's Year 1 dissertation and final thesis for the Doctorate. The results of the study may be published in peer reviewed journals and presented at academic or professional conferences. The data will be aggregated and reported anonymously, with any identifying information removed. If you would like a summary of the results, you can contact the researcher using the email address above.

Extracts of your data may be disclosed in published works that are posted online for use by the scientific community. Your data may also be stored indefinitely on external data repositories (e.g., the UK Data Archive) and be further processed for archiving purposes in the public interest, or for historical, scientific or statistical purposes. It may also move with the researcher who collected your data to another institution in the future.

In this survey, you will be asked to indicate which county you currently reside in. This information is solely for the purpose of allowing the researcher to gain a better understanding of the geographical spread of the responses. This information will not be used during the analysis of the data.

Are there any risks to the study?
We believe there are no known risks linked with this research study. Past studies conducting on similar topics have observed minimal harm and discomfort. However, as there are questions regarding adverse childhood experience and present behaviours towards your caregiver(s), you may still experience some distress when answering the questions.

If you have any questions or concerns regarding this study, please do not hesitate to ask. We can be contacted before and after your participation at the above email addresses.

This study has been reviewed and given a favourable opinion by the University of Nottingham, Faculty of Medicine & Health Sciences Research Ethics Committee (FMHS 249-1802).

More information regarding the NEW General Data Protection Regulation
Privacy information for Research Participants
For information about the University's obligations with respect to your data, who you can get in touch with and your rights as a data subject, please visit: https://www.nottingham.ac.uk/utilities/privacy.aspx.

Legal basis for processing your personal data under GDPR
The legal basis for processing your personal data on this occasion is Article 6(1a) consent of the data subject AND Article 6 (1f) processing is necessary for the purposes of the legitimate interests pursued by the controller.

Special category personal data.
In addition to the legal basis for processing your personal data, the University must meet a further basis when processing any special category data, including: personal data revealing racial or ethnic origin, political opinions, religious or philosophical beliefs, or trade union membership, and the processing of genetic data, biometric data for the purpose of uniquely identifying a natural person, data concerning health or data concerning a natural person's sex life or sexual orientation.
The basis for processing your sensitive personal data on this occasion is Article 9(2a) the data subject has given explicit consent to the processing AND Article 9(2j) processing is necessary for archiving purposes in the public interest, scientific or historical research purposes or statistical purposes.

Please tick each box to continue:

- I confirm that I have read and understood the participant information on the previous page.
- I am 18 or over.
- I understand that my participation is voluntary, and I can end the study and withdraw my data by indicating my decision to withdraw at any time before or during the study.
- I understand that my answers will be anonymous, and that once I have completed the whole study and submitted my questionnaire, the data cannot be withdrawn.
- I understand the overall anonymised data from this study may be used in the future for research (with research ethics approval) and teaching purposes.
- I understand that non-identifiable data from this study might be used in academic research reports or publications.
- I know how to contact the researcher if I have questions about this study.
- I indicate my willingness to take part in the study voluntarily.

Thank you for participating!

2) Debriefing Form

University of Nottingham
Centre for Forensic & Family Psychology
Division of Psychiatry & Applied Psychology
School of Medicine, Faculty of Medicine & Health Sciences

Title of Project: The Roles of Post-Traumatic Stress Disorder Symptoms and Irrational Beliefs in Mediating the Relationship Between Childhood Maltreatment and Child-to-parent Violence.

Researcher: Liew Shi Hui (email: shihui.liew@nottingham.ac.uk)
Principal Investigator: Dr Shihning Chou (email: shihning.chou@nottingham.ac.uk)

Ethics Reference Number: FMHS 249-1802

Thank you for participating in this study!

When you began the study, you were informed that the purpose of the study was to understand how an individual's adverse childhood experience by one's caregiver's influences one's 1) beliefs, 2) traumatic responses and 3) interaction with one's caregivers.

The aim of the study was to explore 1) the association between adverse childhood experience such as maltreatment and child-to-caregiver negativity or even abuse and violence 2) if someone's post-traumatic stress disorder symptoms (traumatic responses) and irrational beliefs help explain why in some cases, childhood maltreatment could increase the chance of the child going on to initiate negative interactions, including abuse or violence towards their caregiver.

Should you have any questions, concerns or discomfort regarding the use of deception, please do not hesitate to email us.

Will the research be of any personal benefit to me?

The information that the researcher gets from this study will help enhance our understanding of what contributes to or helps explain child-to-parent violence. The research findings may inform policies, preventive practices and therapeutic interventions for families affected by child-initiated aggression or violence towards caregivers. Additionally, findings from this study may be able to help identify protective factors.

Re-indication of informed consent

[Required - Because there was an omission of information at the initial stage of the survey, we would need you to indicate another consent. This indication is to record that the actual aim of the study has been explained to you, and based on your knowledge of the actual purpose of the study, you will allow us to use the responses that you have filled in.]

- YES, I give my consent to participate and for the usage of my responses
- NO, I DO NOT give my consent to participate and wish to withdraw my responses

Who should I approach if I feel distressed after this study?
Should you feel that you require a listening ear or professional support after the completion of this survey, you may seek out the various organizations:
Mind Infoline: 0300 123 3393
Samaritan's UK helpline: 116 123
NHS - Approach your GP or self-refer for counselling services: https://www.nhs.uk/Service-Search/Psychological-therapies-(IAPT)/LocationSearch/10008

If you have any questions or concerns, please do not hesitate to ask. We can be contacted at the above email addresses.

You have come to the end of the survey. Thank you for taking out your time to complete this survey.

If you wish to help us gain a better understanding on the issue of adverse childhood experience and child-to-parent violence, do spread the word regarding this survey to your network. Thank you ☺
If you are sharing this study, it would be greatly appreciated if you do not discuss about your experience of deception or the full intent of the study until the end of this data collection period. This is to prevent other participants' responses from being influenced by the knowledge of the study's hypotheses.

Browser will close when EXIT button is clicked.

Appendix Q: Breakdown of Attrition of Sample

Total Participants Recruited • Preliminary Study Phase • Finalised Study Phase	*n*=816 *n=233* *n=583*
Withdrawal of Consent • Preliminary Study Phase • Finalised Study Phase	*n=19* *n=7* *n=12*
Remaining responses = 797	
Not Female • Male • Others • Do not want to say	*n=36* *n=20* *n=14* *n=2*
Remaining responses =761	
Outside of Age Range • Below 18 • Above 25	n=11 *n=1* *n=10*
Remaining responses =750	
Insufficient Dataset • All factors are blank • Incorrect answer to control question ○ Failed all 3 questionnaires ○ Failed 2 questionnaires • CPVA questionnaire blank	n=28 *n=2* *n=4* *n=7* *n=15*
Remaining responses =722	
Outliers • Mahalanobis distance below 0.001 • 3 standard deviation beyond mean of standardised residuals for CPVA psychological data	n=13 *n=4* *n=9*
Overall Responses Remaining	***n=709***
Adapted Child-to-Parent Violence and Abuse Questionnaire • Valid sample size • Unanswered questionnaire • Incorrect answer to control question	 *n=709* *n=0* *n=0*
Adverse Childhood Experience-Revised • Valid sample size • Unanswered questionnaire	 *n=706* *n=3*
Impact of Event Scale-Revised • Valid sample size • Unanswered questionnaire • Incorrect answer to control question	 *n=694* *n=5* *n=10*
Abbreviated Attitudes and Belief Scale 2 • Valid sample size • Unanswered questionnaire • Incorrect answer to control question	 *n=661* *n=0* *n=48*

Appendix R: Q-Q plots

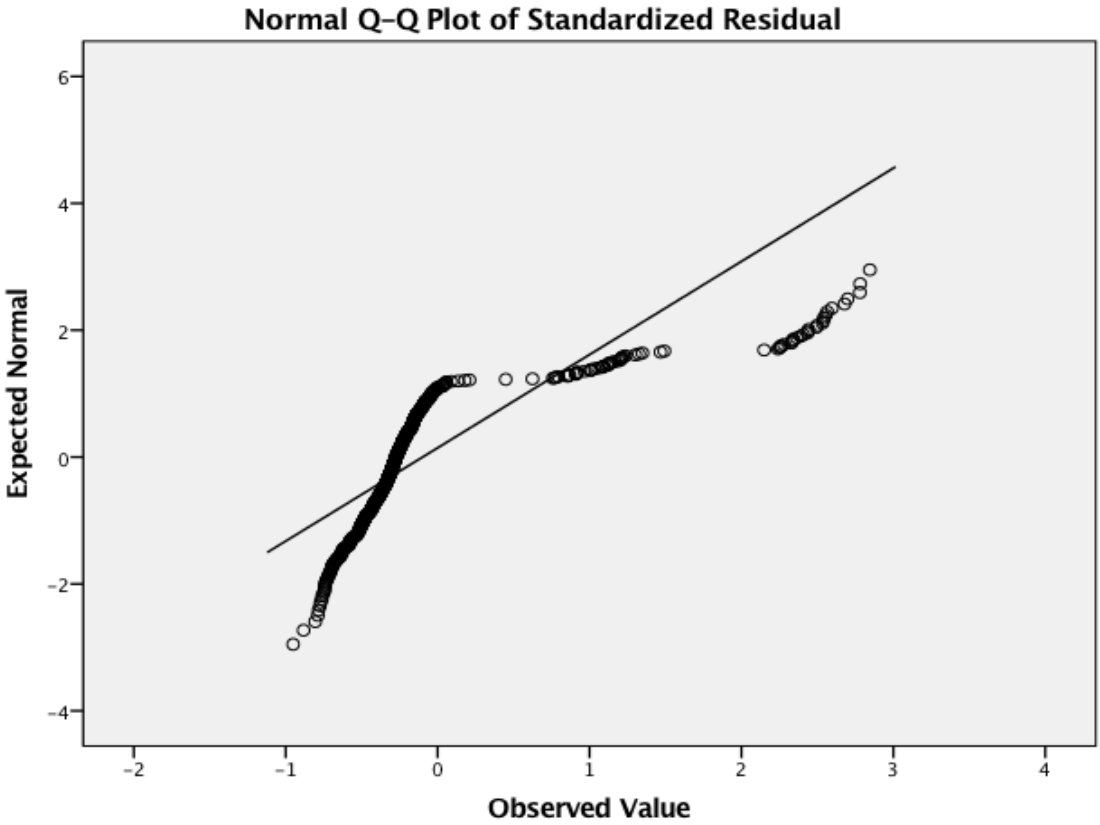


Figure 1: Physical CPVA as continuous data

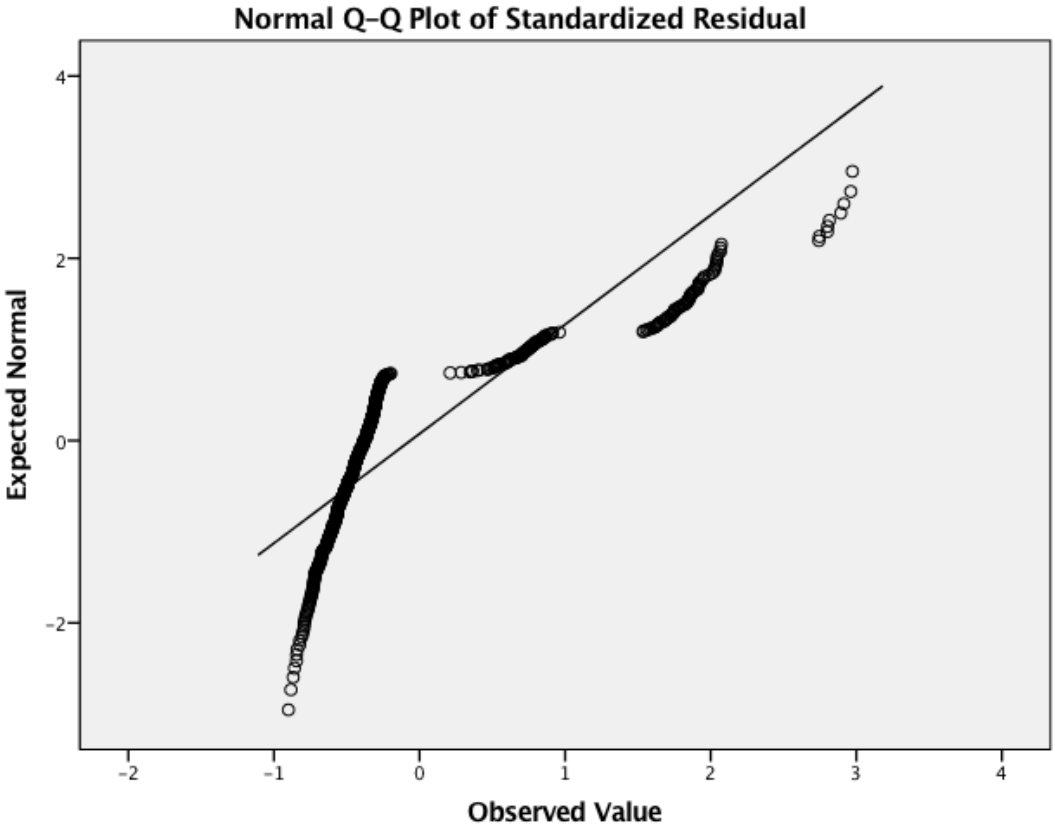


Figure 2: Financial CPVA as continuous data

Appendix S: Correlation Among Variables

Table 1.

Pearson Correlation Matric Between Childhood Maltreatment and Mediators

Variables	Psychological Abuse	Physical Abuse	Sexual Abuse	Psychological Neglect	Physical Neglect	Cumulative Types
Demandingness	.200**	.163**	0.044	.241**	.133**	.245**
Catastrophising	.331**	.261**	.116**	.386**	.212**	.404**
Low Frustration Tolerance	.303**	.271**	0.064	.380**	.155**	.372**
Depreciation	.415**	.337**	.191**	.437**	.215**	.489**
Intrusion	.370**	.299**	.256**	.406**	.256**	.471**
Avoidance	.357**	.293**	.272**	.408**	.225**	.460**
Hyperarousal	.412**	.350**	.266**	.459**	.279**	.527**

** p <.01

Table 2.

Pearson Correlation Matric for Mediators

Variables	1	2	3	4	5	6	7
1. Intrusion							
2. Avoidance	.803**						
3. Hyperarousal	.876**	.757**					
4. Demandingness	.295**	.280**	.278**				
5. Catastrophising	.459**	.421**	.490**	.356**			
6. Low Frustration Tolerance	.402**	.369**	.456**	.491**	.574**		
7. Depreciation	.478**	.437**	.504**	.423**	.644**	.543**	

** p <.01

Appendix T: Multiple Linear and Logistic Regression Models

Figure 1.1. Diagram of Multiple Linear/Binary Regression Test 1

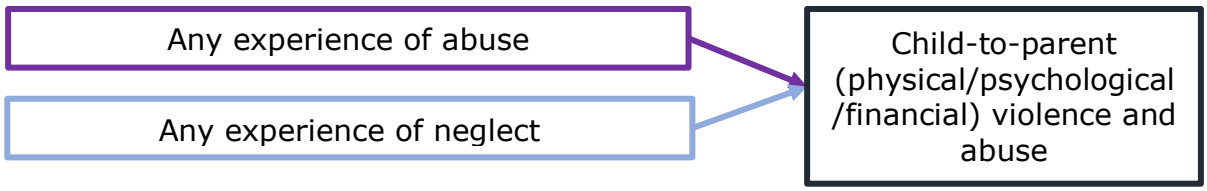


Figure 1.2. Diagram of Multiple Linear/Binary Regression Test 2

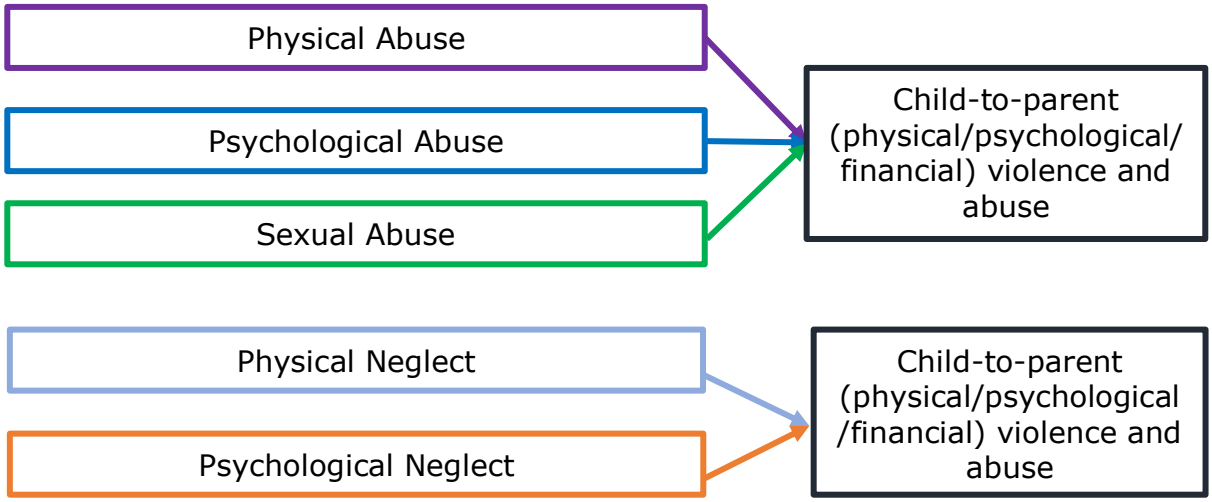


Figure 1.3. Diagram of Multiple Linear/Binary Regression Test 3