# THE LANCET Psychiatry

# Supplementary appendix

This appendix formed part of the original submission and has been peer reviewed. We post it as supplied by the authors.

Supplement to: Synergy for the Influence of the Month of Birth in ADHD (SIMBA) study group. Association between relative age at school and persistence of ADHD in prospective studies: an individual participant data meta-analysis. *Lancet Psychiatry* 2023; published online Oct 25. https://doi.org/10.1016/S2215-0366(23)00272-9.

#### **Supplementary Materials for**

"Association between relative age at school and persistence of attention-deficit hyperactivity disorder in prospective studies: an individual participant data meta-analysis."

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## Supplementary Table S1. PRISMA checklist

Location in the manuscript of each criteria requested by the PRISMA guidelines.

PRISMA-IPD Section/tonic	Item No	Checklist item	Reported on page
Title	110		
Title	1	Identify the report as a systematic review and meta-analysis of individual participant data.	Title page
Abstract	•		
Structured	2	Provide a structured summary including as applicable:	In the abstract (in red, not
summary		<b>Background</b> : state research question and main objectives, with information on participants, interventions, comparators and outcomes.	possible to include for space constraints)
		<b>Methods</b> : report eligibility criteria; data sources including dates of last bibliographic search or elicitation, noting that IPD were sought; methods of assessing risk of bias.	
		<b>Results</b> : provide number and type of studies and participants identified and number (%) obtained; summary effect estimates for main outcomes (benefits and harms) with confidence intervals and measures of statistical heterogeneity. Describe the direction and size of summary effects in terms meaningful to those who would put findings into practice.	
		<b>Discussion:</b> state main strengths and limitations of the evidence, general interpretation of the results and any important implications.	
		<b>Other:</b> report primary funding source, registration number and registry name for the systematic review and IPD meta-analysis.	
Introduction			·
Rationale	3	Describe the rationale for the review in the context of what is already known.	Introduction p.1 and p.2
Objectives	4	Provide an explicit statement of the questions being addressed with reference, as applicable, to participants, interventions, comparisons, outcomes and study design (PICOS). Include any hypotheses that relate to particular types of participant-level subgroups.	Introduction p.2
Methods			
Protocol and registration	5	Indicate if a protocol exists and where it can be accessed. If available, provide registration information including registration number and registry name. Provide publication details, if applicable.	Methods p.3

Eligibility criteria	6	Specify inclusion and exclusion criteria including those relating to participants, interventions, comparisons, outcomes, study design and characteristics (e.g. years when conducted, required minimum follow-up). Note whether these were applied at the study or individual level i.e. whether eligible participants were included (and ineligible participants excluded) from a study that included a wider population than specified by the review inclusion criteria. The rationale for criteria should be stated.	Methods p.3-4
Identifying studies - information sources	7	Describe all methods of identifying published and unpublished studies including, as applicable: which bibliographic databases were searched with dates of coverage; details of any hand searching including of conference proceedings; use of study registers and agency or company databases; contact with the original research team and experts in the field; open adverts and surveys. Give the date of last search or elicitation.	Methods p.3
Identifying studies - search	8	Present the full electronic search strategy for at least one database, including any limits used, such that it could be repeated.	Appendix S2
Study selection processes	9	State the process for determining which studies were eligible for inclusion.	Methods p.3
Data collection processes	10	Describe how IPD were requested, collected and managed, including any processes for querying and confirming data with investigators. If IPD were not sought from any eligible study, the reason for this should be stated (for each such study).	Methods p.3-4
		If applicable, describe how any studies for which IPD were not available were dealt with. This should include whether, how and what aggregate data were sought or extracted from study reports and publications (such as extracting data independently in duplicate) and any processes for obtaining and confirming these data with investigators.	
Data items	11	Describe how the information and variables to be collected were chosen. List and define all study level and participant level data that were sought, including baseline and follow-up information. If applicable, describe methods of standardising or translating variables within the IPD datasets to ensure common scales or measurements across studies.	Methods p.3-4 and Appendix S4
IPD integrity	A1	Describe what aspects of IPD were subject to data checking (such as sequence generation, data consistency and completeness, baseline imbalance) and how this was done.	Distribution of the relative age (IQR) and ADHD persistence (%)
Risk of bias assessment in individual studies.	12	Describe methods used to assess risk of bias in the individual studies and whether this was applied separately for each outcome. If applicable, describe how findings of IPD checking were used to inform the assessment. Report if and how risk of bias assessment was used in any data synthesis.	Methods p. 4

Specification of outcomes and effect measures	13	State all treatment comparisons of interests. State all outcomes addressed and define them in detail. State whether they were pre-specified for the review and, if applicable, whether they were primary/main or secondary/additional outcomes. Give the principal measures of effect (such as risk ratio, hazard ratio, difference in means) used for each outcome.	Methods p. 5
Synthesis methods	14	<ul> <li>Describe the meta-analysis methods used to synthesise IPD. Specify any statistical methods and models used. Issues should include (but are not restricted to):</li> <li>Use of a one-stage or two-stage approach.</li> <li>How effect estimates were generated separately within each study and combined across studies (where applicable).</li> <li>Specification of one-stage models (where applicable) including how clustering of patients within studies was accounted for.</li> <li>Use of fixed or random effects models and any other model assumptions, such as proportional hazards.</li> <li>How (summary) survival curves were generated (where applicable).</li> <li>Methods for quantifying statistical heterogeneity (such as I<sup>2</sup> and τ<sup>2</sup>).</li> <li>How studies providing IPD and not providing IPD were analysed together (where applicable).</li> <li>How missing data within the IPD were dealt with (where applicable).</li> </ul>	Methods p. 5-6
Exploration of variation in effects	A2	If applicable, describe any methods used to explore variation in effects by study or participant level characteristics (such as estimation of interactions between effect and covariates). State all participant-level characteristics that were analysed as potential effect modifiers, and whether these were pre-specified.	Methods p. 5-6
Risk of bias across studies	15	Specify any assessment of risk of bias relating to the accumulated body of evidence, including any pertaining to not obtaining IPD for particular studies, outcomes or other variables.	Methods p. 5-6
Additional analyses	16	Describe methods of any additional analyses, including sensitivity analyses. State which of these were pre- specified.	Methods p. 5-6
Results			
Study selection and IPD obtained	17	Give numbers of studies screened, assessed for eligibility, and included in the systematic review with reasons for exclusions at each stage. Indicate the number of studies and participants for which IPD were sought and for which IPD were obtained. For those studies where IPD were not available, give the numbers of studies and participants for which aggregate data were available. Report reasons for non-availability of IPD. Include a flow diagram.	Results p. 6
Study characteristics	18	For each study, present information on key study and participant characteristics (such as description of interventions, numbers of participants, demographic data, unavailability of outcomes, funding source, and if	Supplementary Results

		applicable duration of follow-up). Provide (main) citations for each study. Where applicable, also report similar study characteristics for any studies not providing IPD.	
IPD integrity	A3	Report any important issues identified in checking IPD or state that there were none.	N/A
Risk of bias within studies	19	Present data on risk of bias assessments. If applicable, describe whether data checking led to the up- weighting or down-weighting of these assessments. Consider how any potential bias impacts on the robustness of meta-analysis conclusions.	Results p. 7-8-9
Results of individual studies	20	For each comparison and for each main outcome (benefit or harm), for each individual study report the number of eligible participants for which data were obtained and show simple summary data for each intervention group (including, where applicable, the number of events), effect estimates and confidence intervals. These may be tabulated or included on a forest plot.	Results p. 7-8-9
Results of syntheses	21	Present summary effects for each meta-analysis undertaken, including confidence intervals and measures of statistical heterogeneity. State whether the analysis was pre-specified, and report the numbers of studies and participants and, where applicable, the number of events on which it is based.	Results p. 7-8-9
		When exploring variation in effects due to patient or study characteristics, present summary interaction estimates for each characteristic examined, including confidence intervals and measures of statistical heterogeneity. State whether the analysis was pre-specified. State whether any interaction is consistent across trials.	
		Provide a description of the direction and size of effect in terms meaningful to those who would put findings into practice.	
Risk of bias across studies	22	Present results of any assessment of risk of bias relating to the accumulated body of evidence, including any pertaining to the availability and representativeness of available studies, outcomes or other variables.	Results p. 7-8-9
Additional analyses	23	Give results of any additional analyses (e.g. sensitivity analyses). If applicable, this should also include any analyses that incorporate aggregate data for studies that do not have IPD. If applicable, summarise the main meta-analysis results following the inclusion or exclusion of studies for which IPD were not available.	N/A
Discussion			
Summary of evidence	24	Summarise the main findings, including the strength of evidence for each main outcome.	Discussion p. 10-13
Strengths and limitations	25	Discuss any important strengths and limitations of the evidence including the benefits of access to IPD and any limitations arising from IPD that were not available.	Discussion p. 13
Conclusions	26	Provide a general interpretation of the findings in the context of other evidence.	Discussion p. 10-13

Implications	A4	Consider relevance to key groups (such as policy makers, service providers and service users). Consider implications for future research.	Discussion p. 10-13
Funding			
Funding	27	Describe sources of funding and other support (such as supply of IPD), and the role in the systematic review of those providing such support.	Discussion p. 13

#### Supplementary Text S2. Search strategies.

#### PUBMED

("Attention Deficit Disorder with Hyperactivity"[mh] OR (attention\* deficit\*[tw]) OR ADHD[tw] OR (hyperactive disorder\*[tw]) OR hyperkine\*[tw]) AND ("Prospective Studies"[mh] OR "Follow-Up Studies"[mh] OR "Longitudinal Studies"[mh] OR prospective[tw] OR (follow up[tw]) OR longitudinal[tw] OR persist\*[tw] OR remiss\*[tw] OR stab\*[tw])

#### EMBASE

('attention deficit disorder'/exp OR 'attention\* deficit\*':ti,ab,kw OR 'ADHD':ti,ab,kw OR 'hyperactive disorder\*':ti,ab,kw OR 'hyperkine\*':ti,ab,kw) AND ('prospective study'/exp OR 'follow up'/exp OR 'longitudinal study'/exp OR 'prospective':ti,ab,kw OR 'follow up':ti,ab,kw OR 'longitudinal':ti,ab,kw OR 'persist\*':ti,ab,kw OR 'remiss\*':ti,ab,kw OR 'stab\*':ti,ab,kw)

#### PUBPSYCH

((attention\* deficit\*) OR (ADHD) OR (hyperactive disorder\*) OR (hyperkine\*)) AND ((follow up) OR (prospective\*) OR (longitudinal) OR (persist\*) OR (remiss\*) OR (stab\*))

#### CINAHL

((MH "Attention Deficit Hyperactivity Disorder") OR TI (attention\* deficit\*) OR AB (attention\* deficit\*) OR TI (ADHD) OR AB (ADHD) OR TI (hyperactive disorder\*) OR (hyperactive disorder\*) OR TI (hyperkine\*) OR AB (hyperkine\*)) AND (MH "Prospective Studies+" OR TI (prospective) OR AB (prospective) OR TI (follow up) OR AB (follow up) OR TI (longitudinal) OR AB (longitudinal) OR TI (persist\*) OR AB (persist\*) OR TI (remiss\*) OR AB (remiss\*) OR TI (stab\*) OR AB (stab\*))

#### **PSYCINFO**

(DE "Attention Deficit Disorder with Hyperactivity" OR DE "Attention Deficit Disorder" OR DE "Hyperkinesis" OR TI (attention\* deficit\*) OR AB (attention\* deficit\*) OR TI (ADHD) OR AB (ADHD) OR TI (hyperactive disorder\*) OR (hyperactive disorder\*) OR TI (hyperkine\*) OR AB (hyperkine\*)) AND (DE "Prospective Studies" OR DE "Followup Studies" OR DE "Longitudinal Studies" OR TI (prospective) OR AB (prospective) OR TI (follow up) OR AB (follow up) OR TI (longitudinal) OR AB (longitudinal) OR TI (persist\*) OR AB (persist\*) OR TI (remiss\*) OR AB (remiss\*) OR TI (stab\*) OR AB (stab\*))

# Supplementary Table S3. List of ADHD measures.

Name	Acronym	Туре
ADHD Rating Scale	ADHD-RS	ADHD questionnaire
Adult Self-Report	ASR	ADHD questionnaire
Adult Self-Report Inventory-4	ASRI	ADHD questionnaire
Adult ADHD Self-Report Scale	ASRS	ADHD questionnaire
Autism-Tics, ADHD and other Comorbidities	A-TAC	ADHD questionnaire
Conner's Adult ADHD Diagnostic Interview	CAADI	ADHD interview
Child and Adolescent Psychiatric Assessment	CAPA	ADHD interview
Conners Adult Rating Scale	CARS	ADHD questionnaire
Child Behavior Checklist	CBCL	Broad-based questionnaire
Clinical Diagnostic Interview	CDI	ADHD interview
Conners' Rating Scales	CRS	ADHD questionnaire
Development and Well-Being Assessment	DAWBA	ADHD interview
Diagnostic interview for children and adolescents	DICA	ADHD interview
Diagnostic Interview Schedule for Children	DISC	ADHD interview
Diagnostic Interview for ADHD in adults	DIVA	ADHD interview
Kiddie Schedule for Affective Disorders and	K-SADS	ADHD interview
Schizophrenia		
Parental Account of Childhood Symptoms	PACS	ADHD interview
Preschool-Age Psychiatric Assessment	PAPA	ADHD interview
Quick Diagnostic Interview Schedule	QDIS	ADHD interview
Social Behavior Questionnaire	SBQ	Broad-based questionnaire
Strengths and Difficulties questionnaire	SDQ	Broad-based questionnaire
Swanson, Nolan and Pelham Teacher and Parent	SNAP-IV	ADHD questionnaire
Rating Scale		
Strengths and Weaknesses of Attention-	SWAN	ADHD questionnaire
Deficit/Hyperactivity-symptoms and Normal-		
behaviors		
Vanderbilt ADHD Diagnostic Rating Scale	VADRS	ADHD questionnaire
Washington University in St. Louis Kiddie	WASH-U-	ADHD interview
Schedule for Affective Disorders and	KSADS	
Schizophrenia		

#### Supplementary Text S4. Data extraction.

Study-level data, extracted independently by two authors, are displayed interactively at <u>https://simba-adhd.com/HTMLcohort.html</u>. Participant-level data included: month of birth, diagnostic status at follow-up, age at baseline and follow-up, follow-up duration, psychiatric comorbidity, intelligence quotient, diagnostic procedure used at baseline and follow-up, and ADHD subtype/presentation.

#### Supplementary Text S5. Deviations from protocol.

#### 1. Data extraction

Some planned study-level data were not extracted from the reports (e.g., attrition) because values were not consistent with the sample used in the analyses (due - for example - to our inclusion criteria regarding the age of participants)

#### 2. Data analysis

Several analyses were not conducted, and others were added post-hoc.

Analyses removed: using multiple imputation to handle missing data (due to technical failure for a high number of cohorts) and restricting to cohorts with a low attrition (due to the impossibility to include participants (or to retrieve data of participants) with missing data for a high number of cohorts)

Analyses added post-hoc: S9, S11.1, S12.1, S12.4, S13.1, S13.2, S13.3

Moderation analyses were conducted even if the number of studies is lower than 10.

#### Supplementary Table S6. List of included studies.

Description of all included studies. When a given cohort was identified in multiple reports, only one reference is provided below for parsimony. An interactive table and links to references are available at: <u>https://simba-adhd.com/HTMLcohort.html.</u>

Full Name	Country	School-entry system	Type of sampling	Sample size	Age at baseline	Follow-up duration	Type Diagnosis baseline	Type diagnosis follow-up
23 - ALSPAC	UK	Non-flexible	Population-based/Very large community	57	7.65	7.79	Diagnosis	Diagnosis
24 - CLASS	UK	Non-flexible	Convenient cases	96	7.83	5.33	Diagnosis	Diagnosis
25 - MGH- boys	USA	Non-flexible	Convenient cases	49	7.84	15.43	Diagnosis	Diagnosis
26 - MGH- girls	USA	Non-flexible	Convenient cases	46	7.72	9.59	Diagnosis	Diagnosis
27 - Li	China	Non-flexible	Convenient cases	38	8.84	9.45	Diagnosis	Diagnosis
28 - MCS	UK	Non-flexible	Population-based/Very large community	567	5	9	Broad-based- scale	Broad-based- scale
28 - MCS	UK	Non-flexible	Population-based/Very large community	436	7	7	Broad-based- scale	Broad-based- scale
29 - LSAC	Australia	Non-flexible	Population-based/Very large community	242	6	8.28	Broad-based- scale	Broad-based- scale
29 - LSAC	Australia	Non-flexible	Population-based/Very large community	131	8	6.34	Broad-based- scale	Broad-based- scale
30 – IMAGE/SEF OS	UK	Non-flexible	Convenient cases	33	8.29	6.56	Symptoms	Diagnosis
31 - E-risk	UK	Non-flexible	Population-based/Very large community	63	5.15	6.92	Symptoms	Symptoms
32 - BCS	Norway	Non-flexible	Population-based/Very large community	134	8.28	9.3	Symptoms	Symptoms

33 - NYS	USA	Non-flexible	Convenient cases	101	7.73	33.04	Diagnosis	Diagnosis
34 -	USA	Non-flexible	Convenient cases	23	6.7	7.83	Diagnosis	Diagnosis
Rosenbaum								
35 - SAGE	UK	Non-flexible	Convenient cases	40	7.47	6	Diagnosis	Diagnosis
36 - GELLER	USA	Non-flexible	Convenient cases	44	8.46	4.04	Diagnosis	Diagnosis
37 - CJCCS	China	Non-flexible	Population-based/Very large community	14	6.66	5.43	Broad-based- scale	Broad-based- scale
38 - LSUY	USA	Non-flexible	Convenient cases	74	8.54	9.5	Diagnosis	Diagnosis
39 - ADSU	USA	Non-flexible	Population-based/Very large community	25	7.64	8.37	Symptoms	Symptoms
40 - BGALS	USA	Non-flexible	Convenient cases	67	8.41	15.98	Diagnosis	Symptoms
41 - MPHC	USA	Non-flexible	Convenient cases	14	7.62	4.72	Broad-based- scale	Broad-based- scale
42 - MILWAUKE E	USA	Non-flexible	Convenient cases	101	7.41	19.84	Diagnosis	Diagnosis
43 - PELOTAS	Brazil	Non-flexible	Population-based/Very large community	77	6.69	4.29	Diagnosis	Diagnosis
44 - Fenesy	USA	Non-flexible	Convenient cases	163	7.37	4.74	Diagnosis	Diagnosis
45 - Lindahl	Finland	Non-flexible	Population-based/Very large community	44	9.3	32.79	Diagnosis	Symptoms
46 - TEMPO	France	Non-flexible	Population-based/Very large community	22	8.32	7.9	Broad-based- scale	Broad-based- scale
47 - Ercan	Turkey	Non-flexible	Population-based/Very large community	65	8.05	4	Diagnosis	Diagnosis
48 - INMA	Spain	Non-flexible	Population-based/Very large community	22	6.66	4.54	Symptoms	Symptoms
49 - Masi	Italy	Non-flexible	Convenient cases	20	8.58	6.24	Diagnosis	Diagnosis
50 - CAP	Australia	Non-flexible	Population-based/Very large community	54	7.23	6	Diagnosis	Diagnosis
51 - ERICA	Sweden	Non-flexible	Convenient cases	41	6.09	5.64	Diagnosis	Symptoms

52 - DNTC	Denmark	Non-flexible	Convenient cases	18	8.36	6.29	Symptoms	Symptoms
53 - GSMS	USA	Non-flexible	Population-based/Very large community	11	9	6.91	Diagnosis	Diagnosis
54 - DNBC	Denmark	Non-flexible	Population-based/Very large community	813	7.14	4.47	Broad-based- scale	Broad-based- scale
55 - UPPSALA	Sweden	Non-flexible	Community	17	5.61	8.52	Symptoms	Symptoms
56 - IMAGE- SPAIN	Spain	Non-flexible	Convenient cases	30	7.57	10.63	Diagnosis	Symptoms
57 - VIBeS	Australia	Non-flexible	Community	18	7.46	5.81	Diagnosis	Diagnosis
58 - MARS	Germany	Non-flexible	Community	22	8.16	16.84	Diagnosis	Diagnosis
59 - LINEUP	Norway	Non-flexible	Convenient cases	10	9.42	9.67	Diagnosis	Symptoms
60 - BHRC	Brazil	Non-flexible	Population-based/Very large community	16	8.45	7.73	Diagnosis	Diagnosis
61 - CATSS	Sweden	Non-flexible	Population-based/Very large community	813	9.05	6.44	Symptoms	Broad-based- scale
62 - ADSAT	Australia	Non-flexible	Population-based/Very large community	22	9.4	4.91	Symptoms	Symptoms
63 - QNTS	Canada	Non-flexible	Population-based/Very large community	15	6.07	9.03	Broad-based- scale	Broad-based- scale
64 - NTR	Netherlan ds	Flexible	Population-based/Very large community	513	7.4	4.83	Broad-based- scale	Broad-based- scale
65 - GENR	Netherlan ds	Flexible	Population-based/Very large community	60	6.56	7.08	Broad-based- scale	Broad-based- scale
66 - PGS	USA	Flexible	Population-based/Very large community	104	8.52	15.26	Symptoms	Symptoms
67 - OTAGO	New Zealand	Flexible	Convenient cases	19	7.65	4.14	Diagnosis	Diagnosis
68 - B-CAPU	Bahrain	Flexible	Convenient cases	22	7.77	9.55	Symptoms	Symptoms
69 - CDP	USA	Flexible	Community	262	6	12	Broad-based- scale	Symptoms

69 - CDP	USA	Flexible	Community	157	6	12	Broad-based-	Symptoms
							scale	
70 - PDS	USA	Flexible	Community	28	6.03	4.69	Diagnosis	Diagnosis
71 - LAMS	USA	Flexible	Convenient cases	133	8.09	8.01	Diagnosis	Diagnosis
71 - LAMS	USA	Flexible	Convenient cases	54	8.08	8.01	Diagnosis	Diagnosis
72 - MCBCH	USA	Flexible	Convenient cases	56	6.15	7.1	Diagnosis	Diagnosis
73 - QCPP	USA	Flexible	Community	22	6.52	6.09	Diagnosis	Diagnosis
74 - Hill	USA	Flexible	Community	10	9.11	4.7	Diagnosis	Diagnosis
75 - NIMH-IP	USA	Flexible	Convenient cases	66	7.85	6.43	Diagnosis	Diagnosis
76 - SBTS	USA	Flexible	Community	44	9.17	6.01	Diagnosis	Diagnosis
77 -	Netherlan	Flexible	Convenient cases	108	8.44	5.97	Diagnosis	Diagnosis
NEUROIMA	ds							
GE								
78 - Lambert	USA	Flexible	Convenient cases	123	7.15	22.17	Diagnosis	Diagnosis
79 - Abd	Egypt	Flexible	Convenient cases	15	7	5	Diagnosis	Diagnosis
Elmaksoud								

#### Supplementary Table S7. List of eligible, but non-included studies.

When a given cohort was identified in multiple reports, only one reference is provided below for parsimony.

Cannot	ABCS	Thompson JM, Waldie KE, Wall CR, Murphy R, Mitchell EA; ABC study group. Associations between
participate/reach		acetaminophen use during pregnancy and ADHD symptoms measured at ages 7 and 11 years. PLoS One.
		2014;9(9):e108210. Published 2014 Sep 24. doi:10.1371/journal.pone.0108210
Cannot	Achenbach	MacDonald VM, Achenbach TM. Attention problems versus conduct problems as six-year predictors of
participate/reach		problem scores in a national sample. J Am Acad Child Adolesc Psychiatry. 1996;35(9):1237-1246.
		doi:10.1097/00004583-199609000-00021
Cannot	August	August GJ, Braswell L, Thuras P. Diagnostic stability of ADHD in a community sample of school-aged children
participate/reach		screened for disruptive behavior. J Abnorm Child Psychol. 1998;26(5):345-356. doi:10.1023/a:1021999722211
Cannot	Barnow	Barnow S, Schuckit M, Smith T, Freyberger HJ. Predictors of attention problems for the period from pre-teen
participate/reach		to early teen years. Psychopathology. 2006;39(5):227-235. doi:10.1159/000093923
MoB not	BELLA	Müller O, Rothenberger A, Brüni GL, Wang B, Becker A. Questioning the long-term stability of the additive
accessible/recorded		model in comorbid CTD+ADHD - The transition from childhood to adulthood. PLoS One.
		2018;13(11):e0207522. Published 2018 Nov 20. doi:10.1371/journal.pone.0207522
Cannot	BLS	Eves R, von Mühlenen A, Mendonça M, et al. The Role of Executive and General Cognitive Functioning in the
participate/reach		Attention Problems of Very and Extremely Preterm Adults. J Dev Behav Pediatr. 2020;41(6):461-469.
		doi:10.1097/DBP.000000000000806
Cannot	Cantwell	Cantwell DP, Baker L. Stability and natural history of DSM-III childhood diagnoses. J Am Acad Child Adolesc
participate/reach		Psychiatry. 1989;28(5):691-700. doi:10.1097/00004583-198909000-00009
Cannot	CCCEHMN	Pagliaccio D, Herbstman JB, Perera F, et al. Prenatal exposure to polycyclic aromatic hydrocarbons modifies
participate/reach		the effects of early life stress on attention and Thought Problems in late childhood. J Child Psychol Psychiatry.
		2020;61(11):1253-1265. doi:10.1111/jcpp.13189
Cannot	CCS	Anderson SE, Cohen P, Naumova EN, Must A. Relationship of childhood behavior disorders to weight gain
participate/reach		from childhood into adulthood. Ambul Pediatr. 2006;6(5):297-301. doi:10.1016/j.ambp.2006.06.002
Cannot	CFS	Morgan JE, Lee SS, Loo SK, Yuhan JW, Baker BL. Pathways from Birth Weight to ADHD Symptoms through
participate/reach		Fluid Reasoning in Youth with or without Intellectual Disability. J Abnorm Child Psychol. 2018;46(4):729-739.
		doi:10.1007/s10802-017-0341-2

Cannot	Chervin	Chervin RD, Ruzicka DL, Archbold KH, Dillon JE. Snoring predicts hyperactivity four years later. Sleep.
participate/reach		2005;28(7):885-890. doi:10.1093/sleep/28.7.885
Cannot	CNLSY	Geoffroy MC, Orri M, Girard A, Perret LC, Turecki G. Trajectories of suicide attempts from early adolescence
participate/reach		to emerging adulthood: prospective 11-year follow-up of a Canadian cohort. Psychol Med. 2021;51(11):1933-
		1943. doi:10.1017/S0033291720000732
Cannot	Cohn	Cohn MD, Popma A, van den Brink W, et al. Fear conditioning, persistence of disruptive behavior and
participate/reach		psychopathic traits: an fMRI study. Transl <i>Psychiatry</i> . 2013;3(10):e319. Published 2013 Oct 29.
		doi:10.1038/tp.2013.89
Cannot	DMHDS	Moffitt TE, Houts R, Asherson P, et al. Is Adult ADHD a Childhood-Onset Neurodevelopmental Disorder?
participate/reach		Evidence From a Four-Decade Longitudinal Cohort Study. Am J Psychiatry. 2015;172(10):967-977.
		doi:10.1176/appi.ajp.2015.14101266
Cannot	Doehnert	Doehnert M, Brandeis D, Schneider G, Drechsler R, Steinhausen HC. A neurophysiological marker of impaired
participate/reach		preparation in an 11-year follow-up study of attention-deficit/hyperactivity disorder (ADHD). J Child Psychol
		<i>Psychiatry</i> . 2013;54(3):260-270. doi:10.1111/j.1469-7610.2012.02572.x
Cannot	ELBW	Taylor HG, Margevicius S, Schluchter M, Andreias L, Hack M. Persisting behavior problems in extremely low
participate/reach		birth weight adolescents. J Dev Behav Pediatr. 2015;36(3):178-187. doi:10.1097/DBP.000000000000139
Cannot	FFC	Pihlakoski L, Sourander A, Aromaa M, Rautava P, Helenius H, Sillanpää M. The continuity of psychopathology
participate/reach		from early childhood to preadolescence: a prospective cohort study of 3-12-year-old children. Eur Child
		Adolesc Psychiatry. 2006;15(7):409-417. doi:10.1007/s00787-006-0548-1
Cannot	FLP	Willoughby MT, Williams J, Mills-Koonce WR, Blair CB. Early life predictors of attention deficit/hyperactivity
participate/reach		disorder symptomatology profiles from early through middle childhood. Dev Psychopathol. 2020;32(3):791-
		802. doi:10.1017/S0954579419001135
Cannot	Galicia	López-Romero L, Romero E, Andershed H. Conduct Problems in Childhood and Adolescence: Developmental
participate/reach		Trajectories, Predictors and Outcomes in a Six-Year Follow Up. Child Psychiatry Hum Dev. 2015;46(5):762-
		773. doi:10.1007/s10578-014-0518-7
Cannot	Gillberg	Rasmussen P, Gillberg C. Natural outcome of ADHD with developmental coordination disorder at age 22 years:
participate/reach	C C	a controlled, longitudinal, community-based study. J Am Acad Child Adolesc Psychiatry. 2000;39(11):1424-
		1431. doi:10.1097/00004583-200011000-00017
Cannot	GUI	O'Connor C, McNicholas F. What Differentiates Children with ADHD Symptoms Who Do and Do Not Receive
participate/reach		a Formal Diagnosis? Results from a Prospective Longitudinal Cohort Study. Child Psychiatry Hum Dev.
		2020;51(1):138-150. doi:10.1007/s10578-019-00917-1

Cannot	Guney	Guney, E., Iseri, E., Ergun, S. G., Percin, E. F., Ergun, M. A., Yalcin, O., & Sener, S. (2013). The correlation
participate/reach	-	of attention deficit hyperactivity disorder with DRD4 gene polymorphism in Turkey. International Journal of
		Human Genetics, 13(3), 145-152.
Cannot	Holderness	Holderness, S. L. (1997). Parenting perspectives on family adaptation to ADHD: Effects of family style, coping,
participate/reach		and stress on child outcomes five years later. Oklahoma State University.
Cannot	HP	Coker TR, Elliott MN, Toomey SL, et al. Racial and Ethnic Disparities in ADHD Diagnosis and
participate/reach		Treatment. Pediatrics. 2016;138(3):e20160407. doi:10.1542/peds.2016-0407
Cannot	Kadziela	Kądziela-Olech, H. (2017). After-effects of hyperkinetic disorder (HKD) in prospective longitudinal (12 years)
participate/reach		study. Advances in Psychiatry and Neurology/Postępy Psychiatrii i Neurologii, 26(2), 57-62.
Cannot	Keller	Keller MB, Lavori PW, Beardslee WR, et al. The disruptive behavioral disorder in children and adolescents:
participate/reach		comorbidity and clinical course. J Am Acad Child Adolesc Psychiatry. 1992;31(2):204-209.
		doi:10.1097/00004583-199203000-00005
Cannot	Lahey	Lahey BB, Hartung CM, Loney J, Pelham WE, Chronis AM, Lee SS. Are there sex differences in the predictive
participate/reach		validity of DSM-IV ADHD among younger children?. J Clin Child Adolesc Psychol. 2007;36(2):113-126.
		doi:10.1080/15374410701274066
Cannot	Lee	Lee SS, Lahey BB, Owens EB, Hinshaw SP. Few preschool boys and girls with ADHD are well-adjusted during
participate/reach		adolescence. J Abnorm Child Psychol. 2008;36(3):373-383. doi:10.1007/s10802-007-9184-6
Cannot	Liu	Liu J, Raine A, Venables PH, Mednick SA. Malnutrition at age 3 years and externalizing behavior problems at
participate/reach		ages 8, 11, and 17 years. Am J Psychiatry. 2004;161(11):2005-2013. doi:10.1176/appi.ajp.161.11.2005
Cannot	Loe	Loe IM, Balestrino MD, Phelps RA, et al. Early histories of school-aged children with attention-
participate/reach		deficit/hyperactivity disorder. Child Dev. 2008;79(6):1853-1868. doi:10.1111/j.1467-8624.2008.01230.x
Cannot	LONGSCAN	Thompson R, Tabone JK. The impact of early alleged maltreatment on behavioral trajectories. Child Abuse
participate/reach		Negl. 2010;34(12):907-916. doi:10.1016/j.chiabu.2010.06.006
Cannot	Lord	McCauley JB, Elias R, Lord C. Trajectories of co-occurring psychopathology symptoms in autism from late
participate/reach		childhood to adulthood. Dev Psychopathol. 2020;32(4):1287-1302. doi:10.1017/S0954579420000826
Cannot	Loughran	Loughran, S. B. (2003). Agreement and stability of teacher rating scales for assessing ADHD in
participate/reach		preschoolers. Early Childhood Education Journal, 30, 247-253.
Cannot	Mannuzza	Mannuzza S, Gittelman R. The adolescent outcome of hyperactive girls. Psychiatry Res. 1984;13(1):19-29.
participate/reach		doi:10.1016/0165-1781(84)90115-x
Cannot	McAuley	McAuley T, Crosbie J, Charach A, Schachar R. The persistence of cognitive deficits in remitted and unremitted
participate/reach		ADHD: a case for the state-independence of response inhibition. J Child Psychol Psychiatry. 2014;55(3):292-
		300. doi:10.1111/jcpp.12160

Cannot	MLS	Wong MM, Brower KJ, Fitzgerald HE, Zucker RA. Sleep problems in early childhood and early onset of alcohol
participate/reach		and other drug use in adolescence. Alcohol Clin Exp Res. 2004;28(4):578-587.
		doi:10.1097/01.alc.0000121651.75952.39
Cannot	Molina	Molina BS, Marshal MP, Pelham WE Jr, Wirth RJ. Coping skills and parent support mediate the association
participate/reach		between childhood attention-deficit/hyperactivity disorder and adolescent cigarette use. J Pediatr Psychol.
		2005;30(4):345-357. doi:10.1093/jpepsy/jsi029
Cannot	MUSP	Clavarino AM, Mamun AA, O'Callaghan M, et al. Maternal anxiety and attention problems in children at 5 and
participate/reach		14 years. J Atten Disord. 2010;13(6):658-667. doi:10.1177/1087054709347203
Cannot	NANI	Palma SM, Natale AC, Calil HM. A 4-Year Follow-Up Study of Attention-Deficit Hyperactivity Symptoms,
participate/reach		Comorbidities, and Psychostimulant Use in a Brazilian Sample of Children and Adolescents with Attention-
		Deficit/Hyperactivity Disorder. Front Psychiatry. 2015;6:135. Published 2015 Oct 2.
		doi:10.3389/fpsyt.2015.00135
Cannot	NBHS	Krasner AJ, Turner JB, Feldman JF, et al. ADHD Symptoms in a Non-Referred Low Birthweight/Preterm
participate/reach		Cohort: Longitudinal Profiles, Outcomes, and Associated Features. J Atten Disord. 2018;22(9):827-838.
		doi:10.1177/1087054715617532
Cannot	NDAPP	Farris, J. R., Nicholson, J. S., Borkowski, J. G., & Whitman, T. L. (2011). Onset and progression of disruptive
participate/reach		behavior problems among community boys and girls: A prospective longitudinal analysis. Journal of Emotional
		and Behavioral Disorders, 19(4), 233-246.
Cannot	Nigg	Nigg JT, Breslau N. Prenatal smoking exposure, low birth weight, and disruptive behavior disorders. J Am Acad
participate/reach		Child Adolesc Psychiatry. 2007;46(3):362-369. doi:10.1097/01.chi.0000246054.76167.44
Cannot	OCHS	Korczak DJ, Lipman E, Morrison K, Duku E, Szatmari P. Child and adolescent psychopathology predicts
participate/reach		increased adult body mass index: results from a prospective community sample. J Dev Behav Pediatr.
		2014;35(2):108-117. doi:10.1097/DBP.000000000000015
Cannot	OLS	Brownlie EB, Lazare K, Beitchman J. Validating a self-report screen for ADHD in early adulthood using
participate/reach		childhood parent and teacher ratings. J Atten Disord. 2012;16(6):467-477. doi:10.1177/1087054711398902
Cannot	Peterson	Peterson BS, Pine DS, Cohen P, Brook JS. Prospective, longitudinal study of tic, obsessive-compulsive, and
participate/reach		attention-deficit/hyperactivity disorders in an epidemiological sample. J Am Acad Child Adolesc Psychiatry.
		2001;40(6):685-695. doi:10.1097/00004583-200106000-00014
Cannot	Petrone	Petrone P, Prunas A, Dazzi S, Madeddu F. La sintomatologia ADHD come fattore di rischio per lo sviluppo di
participate/reach		condotte alimentari patologiche in adolescenza: uno studio longitudinale [ADHD symptoms as risk factors for
		dysfunctional eating habits in adolescents: results from a longitudinal study]. Riv Psichiatr. 2013;48(6):448-
		455. doi:10.1708/1379.15339

Cannot	PHDCN	Burnette ML. Gender and the development of oppositional defiant disorder: contributions of physical abuse and
participate/reach		early family environment. Child Maltreat. 2013;18(3):195-204. doi:10.1177/1077559513478144
Cannot	Pittsburgh	Kim JW, Yu H, Ryan ND, et al. Longitudinal trajectories of ADHD symptomatology in offspring of parents
participate/reach		with bipolar disorder and community controls. J Clin Psychiatry. 2015;76(5):599-606.
		doi:10.4088/JCP.14m09095
Cannot	PLAY	Holbrook JR, Cuffe SP, Cai B, et al. Persistence of Parent-Reported ADHD Symptoms From Childhood Through
participate/reach		Adolescence in a Community Sample. J Atten Disord. 2016;20(1):11-20. doi:10.1177/1087054714539997
Cannot	PYS	Byrd AL, Loeber R, Pardini DA. Understanding desisting and persisting forms of delinquency: the unique
participate/reach		contributions of disruptive behavior disorders and interpersonal callousness. J Child Psychol Psychiatry.
		2012;53(4):371-380. doi:10.1111/j.1469-7610.2011.02504.x
Cannot	Raine	Goodwin RD, Robinson M, Sly PD, et al. Severity and persistence of asthma and mental health: a birth cohort
participate/reach		study. Psychol Med. 2013;43(6):1313-1322. doi:10.1017/S0033291712001754
MoB not	RDBC	Lecendreux M, Silverstein M, Konofal E, Cortese S, Faraone SV. A 9-Year Follow-Up of Attention-
accessible/recorded		Deficit/Hyperactivity Disorder in a Population Sample. J Clin Psychiatry. 2019;80(3):18m12642. Published
		2019 May 7. doi:10.4088/JCP.18m12642
Cannot	REP	Yoshimasu K, Barbaresi WJ, Colligan RC, et al. Psychiatric Comorbidities Modify the Association Between
participate/reach		Childhood ADHD and Risk for Suicidality: A Population-Based Longitudinal Study. J Atten Disord.
		2019;23(8):777-786. doi:10.1177/1087054717718264
Cannot	Rudolf	Wendt J, Schmidt MF, König J, Patzlaff R, Huss M, Urschitz MS. Young age at school entry and attention-
participate/reach		deficit hyperactivity disorder-related symptoms during primary school: results of a prospective cohort study
		conducted at German Rudolf Steiner Schools. BMJ Open. 2018;8(10):e020820. Published 2018 Oct 10.
		doi:10.1136/bmjopen-2017-020820
Cannot	Scott	Scott A, Winchester SB, Sullivan MC. Trajectories of problem behaviors from 4 to 23 years in former preterm
participate/reach		infants. Int J Behav Dev. 2018;42(2):237-247. doi:10.1177/0165025417692899
Cannot	SECCYD	Willoughby MT, Mills-Koonce WR, Gottfredson NC, Wagner N. Measuring Callous Unemotional Behaviors
participate/reach		in Early Childhood: Factor Structure and the Prediction of Stable Aggression in Middle Childhood. J
		Psychopathol Behav Assess. 2014;36(1):30-42. doi:10.1007/s10862-013-9379-9
Cannot	Segenreich	Impulsivity as an Endophenotype in ADHD: Negative Findings
participate/reach		
Cannot	Srebnicki	Srebnicki T, Kolakowski A, Wolanczyk T. Adolescent outcome of child ADHD in primary care setting: stability
participate/reach		of diagnosis. J Atten Disord. 2013;17(8):655-659. doi:10.1177/1087054712437583

MoB not	Taylor	Cubillo A, Halari R, Giampietro V, Taylor E, Rubia K. Fronto-striatal underactivation during interference
accessible/recorded		inhibition and attention allocation in grown up children with attention deficit/hyperactivity disorder and
		persistent symptoms. Psychiatry Res. 2011;193(1):17-27. doi:10.1016/j.pscychresns.2010.12.014
Cannot	Taylor	D'Amico F, Knapp M, Beecham J, Sandberg S, Taylor E, Sayal K. Use of services and associated costs for
participate/reach	-	young adults with childhood hyperactivity/conduct problems: 20-year follow-up. Br J Psychiatry.
		2014;204(6):441-447. doi:10.1192/bjp.bp.113.131367
Cannot	TCHAD	Bergman O, Westberg L, Lichtenstein P, Eriksson E, Larsson H. Study on the possible association of brain-
participate/reach		derived neurotrophic factor polymorphism with the developmental course of symptoms of attention deficit and
		hyperactivity. Int J Neuropsychopharmacol. 2011;14(10):1367-1376. doi:10.1017/S1461145711000502
Cannot	TCSJ	Thériault MG, Bécue JC, Lespérance P, Chouinard S, Rouleau GA, Richer F. Oppositional behavior and
participate/reach		longitudinal predictions of early adulthood mental health problems in chronic tic disorders. Psychiatry Res.
		2018;266:301-308. doi:10.1016/j.psychres.2018.03.026
Cannot	TEDS	Pingault JB, Viding E, Galéra C, et al. Genetic and Environmental Influences on the Developmental Course of
participate/reach		Attention-Deficit/Hyperactivity Disorder Symptoms From Childhood to Adolescence. JAMA Psychiatry.
		2015;72(7):651-658. doi:10.1001/jamapsychiatry.2015.0469
Cannot	TESS	Husby SM, Wichstrøm L. Interrelationships and Continuities in Symptoms of Oppositional Defiant and
participate/reach		Conduct Disorders from Age 4 to 10 in the Community. J Abnorm Child Psychol. 2017;45(5):947-958.
		doi:10.1007/s10802-016-0210-4
Cannot	Todd	Todd RD, Huang H, Todorov AA, et al. Predictors of stability of attention-deficit/hyperactivity disorder
participate/reach		subtypes from childhood to young adulthood. J Am Acad Child Adolesc Psychiatry. 2008;47(1):76-85.
		doi:10.1097/chi.0b013e31815a6aca
Cannot	Torgalsboen	Torgalsbøen BR, Zeiner P, Øie MG. Pre-attention and Working Memory in ADHD: A 25-Year Follow-Up
participate/reach		Study. J Atten Disord. 2021;25(7):895-905. doi:10.1177/1087054719879491
Cannot	Trondheim	Hygen BW, Skalická V, Stenseng F, Belsky J, Steinsbekk S, Wichstrøm L. The co-occurrence between
participate/reach		symptoms of internet gaming disorder and psychiatric disorders in childhood and adolescence: prospective
		relations or common causes?. J Child Psychol Psychiatry. 2020;61(8):890-898. doi:10.1111/jcpp.13289
Cannot	UMCU	Fagel SS, Swaab H, De Sonneville LM, et al. Development of schizotypal symptoms following psychiatric
participate/reach		disorders in childhood or adolescence. Eur Child Adolesc Psychiatry. 2013;22(11):683-692.
		doi:10.1007/s00787-013-0409-7
Cannot	VTFASBD	Silberg J, Moore AA, Rutter M. Age of onset and the subclassification of conduct/dissocial disorder. J Child
participate/reach		Psychol Psychiatry. 2015;56(7):826-833. doi:10.1111/jcpp.12353

Cannot	WIC	Kelleher, R. T. (2018). The Developmental Roles of Inhibition and Working Memory Across Childhood on
participate/reach		Preadolescent ADHD Behaviors. The University of North Carolina at Greensboro.
Cannot	Wisconsin	Armstrong JM, Ruttle PL, Klein MH, Essex MJ, Benca RM. Associations of child insomnia, sleep movement,
participate/reach		and their persistence with mental health symptoms in childhood and adolescence. Sleep. 2014;37(5):901-909.
		Published 2014 May 1. doi:10.5665/sleep.3656
Cannot	WRRMP	Vu A, Thompson L, Willcutt E, Petrill S. Sluggish cognitive tempo: longitudinal stability and validity. Atten
participate/reach		Defic Hyperact Disord. 2019;11(4):463-471. doi:10.1007/s12402-019-00287-7
Cannot	YTS	Edbom T, Lichtenstein P, Granlund M, Larsson JO. Long-term relationships between symptoms of Attention
participate/reach		Deficit Hyperactivity Disorder and self-esteem in a prospective longitudinal study of twins. Acta Paediatr.
		2006;95(6):650-657. doi:10.1080/08035250500449866
Cannot	Zuid-Holland	Reef J, van Meurs I, Verhulst FC, van der Ende J. Children's problems predict adults' DSM-IV disorders across
participate/reach		24 years. J Am Acad Child Adolesc Psychiatry. 2010;49(11):1117-1124. doi:10.1016/j.jaac.2010.08.002

#### Supplementary Table S7. List of excluded studies.

References of all studies identified and then excluded in the systematic review. When a given cohort was identified in multiple reports, only one reference is provided below for parsimony.

No validated	ACAD	Hofer SM, Gray KM, Piccinin AM, et al. Correlated and coupled within-person change in emotional and behavioral
ADHD diag at		disturbance in individuals with intellectual disability. Am J Intellect Dev Disabil. 2009;114(5):307-321.
baseline and/or		doi:10.1352/1944-7558-114.5.307
follow-up		
No validated	Add	Inoue Y, Howard AG, Stickley A, Yazawa A, Gordon-Larsen P. Sex and racial/ethnic differences in the
ADHD diag at		association between childhood attention-deficit/hyperactivity disorder symptom subtypes and body mass
baseline and/or		index in the transition from adolescence to adulthood in the United States. Pediatr Obes. 2019;14(5):e12498.
follow-up		doi:10.1111/ijpo.12498
No validated	ATP	McGee R, Prior M, Willams S, Smart D, Sanson A. The long-term significance of teacher-rated
ADHD diag at		hyperactivity and reading ability in childhood: findings from two longitudinal studies. J Child Psychol
baseline and/or		Psychiatry. 2002;43(8):1004-1017. doi:10.1111/1469-7610.00228
follow-up		
Follow-up	Baeyens	Baeyens D, Roeyers H, Van Erdeghem S, Hoebeke P, Vande Walle J. The prevalence of attention deficit-
clinical trial		hyperactivity disorder in children with nonmonosymptomatic nocturnal enuresis: a 4-year followup
		study. J Urol. 2007;178(6):2616-2620. doi:10.1016/j.juro.2007.07.059
No validated	BBC	Ji Y, Riley AW, Lee LC, et al. A Prospective Birth Cohort Study on Maternal Cholesterol Levels and
ADHD diag at		Offspring Attention Deficit Hyperactivity Disorder: New Insight on Sex Differences. Brain Sci.
baseline and/or		2017;8(1):3. Published 2017 Dec 23. doi:10.3390/brainsci8010003
follow-up		
Follow-up	BCAS	Robson VK, Stopp C, Wypij D, et al. Longitudinal Associations between Neurodevelopment and
clinical trial		Psychosocial Health Status in Patients with Repaired D-Transposition of the Great Arteries. J Pediatr.
		2019;204:38-45.e1. doi:10.1016/j.jpeds.2018.08.069
Follow-up	Bird	Bird HR, Shrout PE, Duarte CS, Shen S, Bauermeister JJ, Canino G. Longitudinal mental health service
duration $< 4$		and medication use for ADHD among Puerto Rican youth in two contexts. J Am Acad Child Adolesc
years		Psychiatry. 2008;47(8):879-889. doi:10.1097/CHI.0b013e318179963c

Follow-up	BYS	González RA, Vélez-Pastrana MC, McCrory E, et al. Evidence of concurrent and prospective associations
duration $< 4$		between early maltreatment and ADHD through childhood and adolescence. Soc Psychiatry Psychiatr
years		Epidemiol. 2019;54(6):671-682. doi:10.1007/s00127-019-01659-0
Follow-up	Campbell	Campbell, S. B., Pierce, E. W., Moore, G., Marakovitz, S., & Newby, K. (1996). Boys' externalizing
duration $< 4$		problems at elementary school age: Pathways from early behavior problems, maternal control, and family
years		stress. Development and psychopathology, 8(4), 701-719.
Age baseline >=	CEDAR	Steinberg, E. A. (2015). ADHD and co-occurring psychological symptoms: Emotion regulation and
10 years		parenting as potential moderators. Temple University.
Restricted	CHDS	Diagnostic transitions from childhood to adolescence to <i>early adulthood</i>
month of birth		
sample		
Number of	CLTS	Rhea SA, Gross AA, Haberstick BC, Corley RP. Colorado Twin Registry. Twin Res Hum Genet
ADHD cases <		2006;9:941-9.
10		
No validated	COBY	Sala R, Axelson DA, Castro-Fornieles J, et al. Factors associated with the persistence and onset of new
ADHD diag at		anxiety disorders in youth with bipolar spectrum disorders. J Clin Psychiatry. 2012;73(1):87-94.
baseline and/or		doi:10.4088/JCP.10m06720
follow-up		
Follow-up	Coghill	Coghill DR, Hayward D, Rhodes SM, Grimmer C, Matthews K. A longitudinal examination of
clinical trial		neuropsychological and clinical functioning in boys with attention deficit hyperactivity disorder (ADHD):
		improvements in executive functioning do not explain clinical improvement. Psychol Med.
		2014;44(5):1087-1099. doi:10.1017/S0033291713001761
Age baseline >=	Collado	Oddo LE, Miller NV, Felton JW, Cassidy J, Lejuez CW, Chronis-Tuscano A. Maternal Emotion
10 years		Dysregulation Predicts Emotion Socialization Practices and Adolescent Emotion Lability: Conditional
		Effects of Youth ADHD Symptoms. Res Child Adolesc Psychopathol. 2022;50(2):211-224.
		doi:10.1007/s10802-020-00686-9
Age baseline >=	Cord	Desrosiers C, Boucher O, Forget-Dubois N, et al. Associations between prenatal cigarette smoke exposure
10 years		and externalized behaviors at school age among Inuit children exposed to environmental
		contaminants. Neurotoxicol Teratol. 2013;39:84-90. doi:10.1016/j.ntt.2013.07.010
No validated	CPP	Ball SW, Gilman SE, Mick E, et al. Revisiting the association between maternal smoking during
ADHD diag at		pregnancy and ADHD. J Psychiatr Res. 2010;44(15):1058-1062. doi:10.1016/j.jpsychires.2010.03.009

baseline and/or follow-up		
No validated ADHD diag at baseline and/or follow-up	CRYFS	Räikkönen, K., & Keltikangas-Järvinen, L. (1992). Childhood hyperactivity and the mother-child relationship as predictors of risk Type <i>A behaviour</i> in adolescence; A six year follow-up. Personality and Individual Differences, 13(3), 321-327.
No validated ADHD diag at baseline and/or follow-up	ECLS-B	Franc N, Maury M, Purper-Ouakil D. Trouble déficit de l'attention/hyperactivité (TDAH) : quels liens avec l'attachement ? [ADHD and attachment processes: are they related?]. Encephale. 2009;35(3):256-261. doi:10.1016/j.encep.2008.04.007
No validated ADHD diag at baseline and/or follow-up	ECPBHS	Laas K, Reif A, Kiive E, et al. A functional NPSR1 gene variant and environment shape personality and impulsive action: a longitudinal study. J Psychopharmacol. 2014;28(3):227-236. doi:10.1177/0269881112472562
No validated ADHD diag at baseline and/or follow-up	ERA	Stevens SE, Kumsta R, Kreppner JM, Brookes KJ, Rutter M, Sonuga-Barke EJ. Dopamine transporter gene polymorphism moderates the effects of severe deprivation on <i>ADHD</i> symptoms: developmental continuities in gene-environment interplay. Am J Med Genet <i>B Neuropsychiatr Genet</i> . 2009;150B(6):753-761. doi:10.1002/ajmg.b.31010
No validated ADHD diag at baseline and/or follow-up	ERABIS	Golm D, Sarkar S, Mackes NK, et al. The impact of childhood deprivation on adult neuropsychological functioning is associated with ADHD symptom persistence. Psychol Med. 2021;51(15):2675-2684. doi:10.1017/S0033291720001294
No validated ADHD diag at baseline and/or follow-up	ESLPAC	Goodfellow SA, Rolfe EM, Golding J. Cohort profile: The Isle of Man Birth Cohort Study. Int J Epidemiol. 2013;42(5):1246-1252. <i>doi</i> :10.1093/ije/dys121
Number of ADHD cases < 10	Esser	Esser G, Schmidt MH, Woerner W. Epidemiology and course of psychiatric disorders in school-age childrenresults of <i>a longitudinal</i> study. J Child Psychol Psychiatry. 1990;31(2):243-263. doi:10.1111/j.1469-7610.1990.tb01565.x
age follow up < 10 years	FFCWS	Jimenez ME, Wade R Jr, Schwartz-Soicher O, Lin Y, Reichman NE. Adverse Childhood Experiences and ADHD Diagnosis at Age <i>9 Years in</i> a National Urban Sample. Acad Pediatr. 2017;17(4):356-361. doi:10.1016/j.acap.2016.12.009

No validated ADHD diag at baseline and/or follow-up	From	Ristkari T, Sourander A, Rønning JA, et al. Childhood psychopathology and sense of coherence at age 18: findings from the Finnish from a boy to a man <i>study</i> . Soc Psychiatry Psychiatr Epidemiol. 2009;44(12):1097-1105. doi:10.1007/s00127-009-0032-6
Follow-up clinical trial	FTP	Flory K, Malone PS, Lamis DA. Childhood ADHD symptoms and risk for cigarette smoking during adolescence: School adjustment as a potential mediator. Psychol Addict Behav. 2011;25(2):320-329. doi:10.1037/a0022633
No validated ADHD diag at baseline and/or follow-up	Gau	Gau SS, Chang JP. Maternal parenting styles and mother-child relationship among adolescents with and without persistent attention-deficit/hyperactivity disorder. Res Dev Disabil. 2013;34(5):1581-1594. doi:10.1016/j.ridd.2013.02.002
No validated ADHD diag at baseline and/or follow-up	Gittelman	Gittelman R, Mannuzza S, Shenker R, Bonagura N. Hyperactive boys almost grown up. I. Psychiatric status. Arch Gen <i>Psychiatry</i> . 1985;42(10):937-947. doi:10.1001/archpsyc.1985.01790330017002
No validated ADHD diag at baseline and/or follow-up	Gothenburg	Asztély K, Kopp S, Gillberg C, Waern M, Bergman S. Chronic Pain And Health-Related Quality Of Life <i>In Women</i> With Autism And/Or ADHD: A Prospective Longitudinal Study. J Pain Res. 2019;12:2925- 2932. Published 2019 Oct 18. doi:10.2147/JPR.S212422
Number of ADHD cases < 10	Gustafsson	Gustafsson P, Holmström E, Besjakov J, Karlsson MK. ADHD symptoms and maturity - a follow-up study in school children. Acta Paediatr. 2010;99(10):1536-1539. doi:10.1111/j.1651-2227.2010.01851.x
Follow-up duration < 4 years	Hard	Zahn-Waxler C, Park JH, Usher B, Belouad F, Cole P, Gruber R. Young children's representations of conflict and distress: a longitudinal study of boys and girls with disruptive behavior problems. Dev Psychopathol. 2008;20(1):99-119. doi:10.1017/S0954579408000059
Number of ADHD cases < 10	Hazell	Hazell PL, Carr V, Lewin TJ, Sly K. Manic symptoms in young males with ADHD predict functioning but not diagnosis after 6 years. J Am Acad Child Adolesc Psychiatry. 2003;42(5):552-560. doi:10.1097/01.CHI.0000046830.95464.33
Follow-up clinical trial	Hechtman	Hechtman L, Weiss G, Perlman T. Young adult outcome of hyperactive children who received long-term stimulant treatment. J Am Acad Child Psychiatry. 1984;23(3):261-269. doi:10.1016/s0002-7138(09)60501-x

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clinical trial report. Can Med Assoc J. 19/6;115(/):625-630.	
Follow-up Holmberg Holmberg K, Sundelin C, Hjern A. Screening for attention-deficit/hyperactivity disorder (A	ADHD): can
duration < 4 high-risk children be identified <i>in first grade</i> ?. Child Care Health Dev. 2013;3	39(2):268-276.
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Follow-up IDeA Schmid J, Stadler G, Dirk J, Fiege C, Gawrilow C. ADHD Symptoms in Adolescents' Ev	veryday Life:
duration < 4 Fluctuations and Symptom Structure Within <i>and Between Individuals</i> . J Atten Disord. 2020	);24(8):1169-
years 1180. doi:10.1177/1087054716629214	
No validated Kapi Palili A, Kolaitis G, Vassi I, Veltsista A, Bakoula C, Gika A. Inattention, hyperactivity, i	impulsivity
ADHD diag at epidemiology and correlations: a nationwide greek study from birth to 18 years. J Cl	hild Neurol.
baseline and/or 2011;26(2):199-204. doi:10.1177/0883073810379640	
Follow-up Karalunas Karalunas SL, Gustafsson HC, Dieckmann NF, Tipsord J, Mitchell SH, Nigg JT. Hete	erogeneity in
duration < 4 development of aspects of working memory predicts longitudinal attention deficit hyperactiv	ivity disorder
years symptom change. <i>J Abnorm</i> Psychol. 2017;126(6):7/4-792. doi:10.1037/abn0000292	
No validated Kumpulainen Kumpulainen K, Räsänen E, Henttonen I. The persistence of teacher-reported behavioral prob	blems among
ADHD diag at children aged 8 to 12. Eur Child Adolesc Psychiatry. 1998;7(4):225-234. doi:10.1007/s0078	8/00500/1
baseline and/or	
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No validated LASA Semeijn EJ, Comijs HC, de Vet HC, et al. Lifetime stability of ADHD symptoms in older a	adults. Atten
ADHD diag at Defic Hyperaci Disora. 2010;8(1):13-20. doi:10.100//\$12402-015-01/8-X	
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(DKD4) gene with alleniion-aejicii/hyperactivity disorder (ADHD) in a nign-risk communi	11y sample: a
doi:10.1007/s00702-003-0054-2	11(7).003-009.

Cannot	Lavigne	Lavigne JV, Cicchetti C, Gibbons RD, Binns HJ, Larsen L, DeVito C. Oppositional defiant disorder with
participate/reach		onset in preschool years: longitudinal stability and pathways to other disorders. J Am Acad Child Adolesc
		Psychiatry. 2001;40(12):1393-1400. doi:10.1097/00004583-200112000-00009
Follow-up	LIFT	McClure HH, Eddy JM, Kjellstrand JM, Snodgrass JJ, Martinez CR Jr. Child and adolescent affective
clinical trial		and behavioral distress and elevated adult body mass index. Child Psychiatry Hum Dev. 2012;43(6):837-
		<i>854</i> . doi:10.1007/s10578-012-0299-9
Follow-up	Linares	Linares LO, Li M, Shrout PE, et al. The course of inattention and hyperactivity/impulsivity symptoms
duration $< 4$		after foster placement. Pediatrics. 2010;125(3):e489-e498. doi:10.1542/peds.2009-1285
years		
Follow-up	McMaster	Haltigan JD, Vaillancourt T. Identifying Trajectories of Borderline Personality Features in Adolescence:
duration $< 4$		Antecedent and Interactive Risk Factors. Can J Psychiatry. 2016;61(3):166-175.
years		doi:10.1177/0706743715625953
Age baseline >=	Minnesota	Elkins IJ, Saunders GRB, Malone SM, Wilson S, McGue M, Iacono WG. Differential implications of
10 years		persistent, remitted, and late-onset ADHD symptoms for substance abuse in women and men: A twin study
		from ages 11 to 24. Drug Alcohol Depend. 2020;212:107947. doi:10.1016/j.drugalcdep.2020.107947
Follow-up	MnCEP	August GJ, Realmuto GM, Joyce T, Hektner JM. Persistence and desistance of oppositional defiant
clinical trial		disorder in a community sample of children with ADHD. J Am Acad Child Adolesc Psychiatry.
		1999;38(10):1262-1270. doi:10.1097/00004583-199910000-00015
age follow up <	Moba	Ask H, Gustavson K, Ystrom E, et al. Association of Gestational Age at Birth With Symptoms of
10 years		Attention-Deficit/Hyperactivity Disorder in Children. JAMA Pediatr. 2018;172(8):749-756.
		doi:10.1001/jamapediatrics.2018.1315
Follow-up	Montreal	Weiss G, Hechtman L, Perlman T. Hyperactives as young adults: school, employer, and self-rating scales
clinical trial		obtained during ten-year follow-up evaluation. Am J Orthopsychiatry. 1978;48(3):438-445.
		doi:10.1111/j.1939-0025.1978.tb01333.x
Follow-up	MTA	Lisdahl KM, Tamm L, Epstein JN, et al. The impact of ADHD persistence, recent cannabis use, and age
clinical trial		of regular cannabis use onset on subcortical volume and cortical thickness in young adults. Drug Alcohol
		Depend. 2016;161:135-146. doi:10.1016/j.drugalcdep.2016.01.032
No validated	MTFS	Elkins IJ, Saunders GRB, Malone SM, Keyes MA, McGue M, Iacono WG. Associations between
ADHD diag at		childhood ADHD, gender, and adolescent alcohol and marijuana involvement: A causally informative
baseline and/or		design. Drug Alcohol Depend. 2018;184:33-41. doi:10.1016/j.drugalcdep.2017.11.011
follow-up		

Follow-up	MTN	Hoza B, Murray-Close D, Arnold LE, Hinshaw SP, Hechtman L; MTA Cooperative Group. Time-
clinical trial		dependent changes in positively biased self-perceptions of children with attention-deficit/hyperactivity
		disorder: a developmental psychopathology perspective. Dev Psychopathol. 2010;22(2):375-390.
		doi:10.1017/S095457941000012X
Follow-up	myADHDportal.com	O'Connor BC, Garner AA, Peugh JL, Simon J, Epstein JN. Improved but still impaired: symptom-
clinical trial		impairment correspondence among youth with attention-deficit hyperactivity disorder receiving
		community-based care. J Dev Behav Pediatr. 2015; 36(2):106-114. doi:10.1097/DBP.000000000000124
No validated	NCDS	Addicoat A, Thapar AK, Riglin L, Thapar A, Collishaw S. Adult mood problems in children with
ADHD diag at		neurodevelopmental problems: evidence from a prospective birth cohort followed to age 50. Soc
baseline and/or		Psychiatry Psychiatr Epidemiol. 2020;55(3):351-358. doi:10.1007/s00127-019-01727-5
follow-up		
Not a	NEFS	Agnew-Blais, J., Seidman, L. J., & Buka, S. (2013). Adult ADHD: persistence, symptom profile and
prospective		demographic characteristics. Comprehensive Psychiatry, 1(54), e1.
cohort study		
No validated	NFBC	Hurtig TM, Taanila A, Veijola J, et al. Associations between psychotic-like symptoms and
ADHD diag at		inattention/hyperactivity symptoms. Soc Psychiatry Psychiatr Epidemiol. 2011;46(1):17-27.
baseline and/or		doi:10.1007/s00127-009-0165-7
follow-up		
Number of	NIH	Ducharme S, Hudziak JJ, Botteron KN, et al. Decreased regional cortical thickness and thinning rate are
ADHD cases <		associated with inattention symptoms in healthy children. J Am Acad Child Adolesc Psychiatry.
10		2012;51(1):18-27.e2. doi:10.1016/j.jaac.2011.09.022
Follow-up	NIMH	Humphreys KL, Gabard-Durnam L, Goff B, et al. Friendship and social functioning following early
duration $< 4$		institutional rearing: The role of ADHD symptoms. Dev Psychopathol. 2019;31(4):1477-1487.
years		doi:10.1017/S0954579418001050
Not a	NSCH	Kim M, King MD, Jennings J. ADHD remission, inclusive special education, and socioeconomic
prospective		disparities [published correction appears in SSM Popul Health. 2020 Dec 17;12:100709]. SSM Popul
cohort study		Health. 2019;8:100420. Published 2019 May 30. doi:10.1016/j.ssmph.2019.100420
Follow-up	Okada	Okada, A., Matuo, J., Tsujii, N., & Kaku, R. (2012). Diagnostic problems of juvenile-onset bipolar
duration $< 4$		disorder which is comorbid with attention-deficit hyperactivity disorder (ADHD). Neuropsychiatrie de
years		l'enfance et de l'adolescence, 5(60), S164.
Follow-up	PALS	Molina BS, Pelham WE Jr. Childhood predictors of adolescent substance use in a longitudinal study of
clinical trial		children with ADHD. J Abnorm Psychol. 2003;112(3):497-507. doi:10.1037/0021-843x.112.3.497

Not a	PLASTIC-ITY	Schiavone N, Virta M, Leppämäki S, et al. ADHD and subthreshold symptoms in childhood and life
prospective		outcomes at 40 years in a prospective birth-risk cohort. Psychiatry Res. 2019;281:112574.
cohort study		doi:10.1016/j.psychres.2019.112574
Age baseline >=	Porto	Guimarães-da-Silva PO, Rovaris DL, Silva KL, et al. Exploring neuropsychological predictors of ADHD
10 years		remission or persistence during adulthood. Cogn Neuropsychiatry. 2018;23(5):321-328.
		doi:10.1080/13546805.2018.1506324
Restricted	QLSCD	Galéra C, Pingault JB, Michel G, et al. Clinical and social factors associated with attention-deficit
month of birth		hyperactivity disorder medication use: population-based longitudinal study. Br J Psychiatry.
sample		2014;205(4):291-297. doi:10.1192/bjp.bp.113.141952
Restricted	QLSKC	Carbonneau R, Vitaro F, Brendgen M, Tremblay RE. The Intergenerational Association Between Parents'
month of birth		Problem Gambling and Impulsivity-Hyperactivity/Inattention Behaviors in Children. J Abnorm Child
sample		<i>Psychol.</i> 2018;46(6):1203-1215. doi:10.1007/s10802-017-0362-x
Number of	Radke-Yarrow	Meyer SE, Carlson GA, Youngstrom E, et al. Long-term outcomes of youth who manifested the CBCL-
ADHD cases <		Pediatric Bipolar Disorder phenotype during childhood and/or adolescence. J Affect Disord.
10		2009;113(3):227-235. doi:10.1016/j.jad.2008.05.024
age follow up <	Rhea	Leventakou V, Micali N, Georgiou V, et al. Is there an association between eating behaviour and
10 years		attention-deficit/hyperactivity disorder symptoms in preschool children?. J Child Psychol Psychiatry.
		2016;57(6):676-684. doi:10.1111/jcpp.12504
Number of	Rogers	Rogers, C., Lean, R., Brenner, R., Cyr, P., & Smyser, C. (2021). Neonatal Brain Connectivity and Early
ADHD cases <		Childhood Psychopathology. Biological Psychiatry, 89(9), S78.
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No validated	Satterfield	Satterfield JH, Schell AM. Childhood brain function differences in delinquent and non-delinquent
ADHD diag at		hyperactive boys. Electroencephalogr Clin Neurophysiol. 1984;57(3):199-207. doi:10.1016/0013-
baseline and/or		4694(84)90121-4
follow-up		
No validated	Sourander	Sourander A, Helstelä L. Childhood predictors of externalizing and internalizing problems in
ADHD diag at		adolescence. A prospective follow-up study from age 8 to 16. Eur Child Adolesc Psychiatry.
baseline and/or		2005;14(8):415-423. doi:10.1007/s00787-005-0475-6
follow-up		
Number of	Stormont	Stormont, M. (2000). Early child risk factors for externalizing and internalizing behaviors: A 5-year
ADHD cases <		follow-forward assessment. Journal of Early Intervention, 23(3), 180-190.
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No validated	Taiwan	Chou IC, Chang YT, Chin ZN, et al. Correlation between epilepsy and attention deficit hyperactivity
ADHD diag at		disorder: a population-based cohort study. PLoS One. 2013;8(3):e57926.
baseline and/or		doi:10.1371/journal.pone.0057926
follow-up		
Age baseline >=	TRAILS	Brinksma DM, Dietrich A, de Bildt A, et al. ADHD symptoms across adolescence: the role of the family
10 years		and school climate and the DRD4 and 5-HTTLPR genotype. Eur Child Adolesc Psychiatry.
		2020;29(8):1049-1061. doi:10.1007/s00787-019-01424-3
Follow-up	Van	Yilmaz Z, Javaras KN, Baker JH, et al. Association Between Childhood to Adolescent Attention
clinical trial		Deficit/Hyperactivity Disorder Symptom Trajectories and Late Adolescent Disordered Eating. J Adolesc
		Health. 2017;61(2):140-146. doi:10.1016/j.jadohealth.2017.04.001
Number of	Weissman	Mufson L, Nomura Y, Warner V. The relationship between parental diagnosis, offspring temperament
ADHD cases <		and offspring psychopathology: a longitudinal analysis. J Affect Disord. 2002;71(1-3):61-69.
10		doi:10.1016/s0165-0327(01)00375-5
Number of	Whitfield	Whitfield-Gabrieli, S., Bailey, S., Cutting, L., & Bunge, S. (2018). 77. Intrinsic Brain Architecture
ADHD cases <		Predicts Future Attentional and Mood Problems in a Normative Pediatric Sample. Biological
10		Psychiatry, 83(9), S31-S32.
No validated	YFS	Keltikangas-Järvinen L, Puttonen S, Kivimäki M, et al. Serotonin receptor genes 5HT1A and 5HT2A
ADHD diag at		modify the relation between childhood temperament and adulthood hostility. Genes Brain Behav.
baseline and/or		2008;7(1):46-52. <i>doi</i> :10.1111/j.1601-183X.2007.00324.x
follow-up		
Not a	YHCD	Drukker M, Wojciechowski F, Feron FJ, Mengelers R, Van Os J. A community study of psychosocial
prospective		functioning and weight in young children and <i>adolescents</i> . Int J Pediatr Obes. 2009;4(2):91-97.
cohort study		doi:10.1080/17477160802395442
No validated	Z-PROSO	Murray AL, Booth T, Ribeaud D, Eisner M. Disagreeing about development: An analysis of parent-
ADHD diag at		teacher agreement in ADHD symptom trajectories across the elementary school years. Int J Methods
baseline and/or		Psychiatr Res. 2018;27(3):e1723. doi:10.1002/mpr.1723
follow-up		
Number of	N/A	Salari R, Bohlin G, Rydell AM, Thorell LB. Neuropsychological Functioning and Attachment
ADHD cases <		Representations in Early School Age as Predictors of ADHD Symptoms in Late Adolescence. Child
10		Psychiatry Hum Dev. 2017;48(3):370-384. doi:10.1007/s10578-016-0664-1

Follow-up	N/A	Agha SS, Zammit S, Thapar A, Langley K. Maternal psychopathology and offspring clinical outcome: a
duration $< 4$		four-year follow-up of boys with ADHD. Eur Child Adolesc Psychiatry. 2017;26(2):253-262.
years		doi:10.1007/s00787-016-0873-y
Follow-up	N/A	Antshel KM, Hendricks K, Shprintzen R, et al. The longitudinal course of attention deficit/hyperactivity
duration $< 4$		disorder in velo-cardio-facial syndrome. J Pediatr. 2013;163(1):187-93.e1.
years		doi:10.1016/j.jpeds.2012.12.026
Age baseline >=	N/A	Auerbach JG, Gross-Tsur V, Manor O, Shalev RS. Emotional and behavioral characteristics over a six-
10 years		year period in youths with persistent and nonpersistent dyscalculia. J Learn Disabil. 2008;41(3):263-273.
		doi:10.1177/0022219408315637
Follow-up	N/A	Ayaz AB, Ayaz M, Gökçe S, Başgül ŞS. Factors related to diagnostic persistence of attention
duration $< 4$		deficit/hyperactivity disorder in Turkish children and adolescents. Int J Psychiatry Clin Pract.
years		2016;20(2):77-82. doi:10.3109/13651501.2016.1166513
Not a	N/A	Bachmann CJ, Philipsen A, Hoffmann F. ADHD in Germany: Trends in Diagnosis and
prospective		Pharmacotherapy. Dtsch Arztebl Int. 2017;114(9):141-148. doi:10.3238/arztebl.2017.0141
cohort study		
Number of	N/A	Bechtel N, Weber P. Attention problems in children with epilepsy. How is the long-term outcome?. Eur
ADHD cases <		J Paediatr Neurol. 2015;19(3):383-385. doi:10.1016/j.ejpn.2014.12.020
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Not a	N/A	Biederman J, Petty CR, Fried R, Woodworth KY, Faraone SV. Is the diagnosis of ADHD influenced by
prospective		time of entry to school? An examination of clinical, familial, and functional correlates in children at early
cohort study		and late entry points. J Atten Disord. 2014;18(3):179-185. doi:10.1177/1087054712445061
No validated	N/A	Bijur P, Golding J, Haslum M, Kurzon M. Behavioral predictors of injury in school-age children. Am J
ADHD diag at		Dis Child. 1988;142(12):1307-1312. doi:10.1001/archpedi.1988.02150120061041
baseline and/or		
follow-up		
Not a	N/A	Blázquez A, Ortiz AE, Castro-Fornieles J, et al. Five-year diagnostic stability among adolescents in an
prospective		inpatient psychiatric unit. Compr Psychiatry. 2019;89:33-39. doi:10.1016/j.comppsych.2018.11.011
cohort study		
No validated	N/A	Borland BL, Heckman HK. Hyperactive boys and their brothers. A 25-year follow-up study. Arch Gen
ADHD diag at		Psychiatry. 1976;33(6):669-675. doi:10.1001/archpsyc.1976.01770060013002
baseline and/or		
follow-up		

Not a prospective	N/A	Brandt L, Fischer G. Adult ADHD Is Associated With Gambling Severity and Psychiatric Comorbidity <i>Among Treatment-Seeking</i> Problem Gamblers. J Atten Disord. 2019;23(12):1383-1395.
cohort study		doi:10.1177/1087054717690232
Follow-up	N/A	Bron TI, van Rijen EHM, van Abeelen AM, Lambregtse-van den Berg MP. Development of regulation
clinical trial		disorders into specific psychopathology. Infant Ment Health J. 2012;33(2):212-221.
		doi:10.1002/imhj.21325
No validated	N/A	Brook JS, Duan T, Zhang C, Cohen PR, Brook DW. The association between attention deficit
ADHD diag at		hyperactivity disorder in adolescence and smoking in adulthood. Am J Addict. 2008;17(1):54-59.
baseline and/or		doi:10.1080/10550490701756039
follow-up		
No validated	N/A	Chadwick O, Kusel Y, Cuddy M, Taylor E. Psychiatric diagnoses and behaviour problems from childhood
ADHD diag at		to early adolescence in young people with severe intellectual <i>disabilities</i> . <i>Psychol</i> Med. 2005;35(5):751-
baseline and/or		760. doi:10.1017/s0033291704003733
follow-up		
No validated	N/A	Chromik LC, Quintin EM, Lepage JF, Hustyi KM, Lightbody AA, Reiss AL. The Influence of
ADHD diag at		Hyperactivity, Impulsivity, and Attention Problems on Social Functioning in Adolescents and Young
baseline and/or		Adults With Fragile X Syndrome. J Atten Disord. 2019;23(2):181-188. doi:10.1177/1087054715571739
follow-up		
Follow-up	N/A	Claude, D. (1993). The development of hyperactive boys: a 12-year follow-up. University of Ottawa
clinical trial		(Canada).
No validated	N/A	Cubo E, Gonzalez C, Ausin V, et al. The Association of Poor Academic Performance with Tic Disorders:
ADHD diag at		A Longitudinal, Mainstream School-Based Population Study. Neuroepidemiology. 2017;48(3-4):155-163.
baseline and/or		doi:10.1159/000479517
follow-up		
No validated	N/A	Dalsgaard S, Mortensen PB, Frydenberg M, Maibing CM, Nordentoft M, Thomsen PH. Association
ADHD diag at		between Attention-Deficit Hyperactivity Disorder in childhood and schizophrenia later in adulthood. Eur
baseline and/or		Psychiatry. 2014;29(4):259-263. doi:10.1016/j.eurpsy.2013.06.004
follow-up		
No validated	N/A	Diamantopoulou S, Verhulst FC, van der Ende J. Testing developmental pathways to antisocial
ADHD diag at		personality problems. J Abnorm Child Psychol. 2010;38(1):91-103. doi:10.1007/s10802-009-9348-7
baseline and/or		
follow-up		

No validated	N/A	Du Rietz E, Jangmo A, Kuja-Halkola R, et al. Trajectories of healthcare utilization and costs of psychiatric
ADHD diag at		and somatic multimorbidity in adults with childhood ADHD: a prospective register-based study. J Child
baseline and/or		Psychol Psychiatry. 2020;61(9):959-968. doi:10.1111/jcpp.13206
follow-up		
No validated	N/A	Duffy A, Grof P, Kutcher S, Robertson C, Alda M. Measures of attention and hyperactivity symptoms in
ADHD diag at		a high-risk sample of children of bipolar parents. J Affect Disord. 2001;67(1-3):159-165.
baseline and/or		doi:10.1016/s0165-0327(01)00391-3
follow-up		
Follow-up	N/A	Ehm JH, Kerner Auch Koerner J, Gawrilow C, Hasselhorn M, Schmiedek F. The association of ADHD
duration $< 4$		symptoms and reading acquisition during elementary school years. Dev Psychol. 2016;52(9):1445-1456.
years		doi:10.1037/dev0000186
Follow-up	N/A	Evans SC, Cooley JL, Blossom JB, Pederson CA, Tampke EC, Fite PJ. Examining ODD/ADHD
duration $< 4$		Symptom Dimensions as Predictors of Social, Emotional, and Academic Trajectories in Middle
years		Childhood. J Clin Child Adolesc Psychol. 2020;49(6):912-929. doi:10.1080/15374416.2019.1644645
Not a	N/A	Flory K, Milich R, Lynam DR, Leukefeld C, Clayton R. Relation between childhood disruptive behavior
prospective		disorders and substance use and dependence symptoms in young adulthood: individuals with symptoms
cohort study		of attention-deficit/hyperactivity disorder and conduct disorder are uniquely at risk. Psychol Addict
		Behav. 2003;17(2):151-158. doi:10.1037/0893-164x.17.2.151
Not a	N/A	Fredriksen M, Dahl AA, Martinsen EW, Klungsoyr O, Faraone SV, Peleikis DE. Childhood and persistent
prospective		ADHD symptoms associated with educational failure and long-term occupational disability in adult
cohort study		ADHD. Atten Defic Hyperact Disord. 2014;6(2):87-99. doi:10.1007/s12402-014-0126-1
No validated	N/A	Genuneit J, Braig S, Brandt S, et al. Infant atopic eczema and subsequent attention-deficit/hyperactivity
ADHD diag at		disordera prospective birth cohort study. Pediatr Allergy Immunol. 2014;25(1):51-56.
baseline and/or		doi:10.1111/pai.12152
follow-up		
Age baseline >=	N/A	Giannotta F, Rydell AM. The Prospective Links Between Hyperactive/Impulsive, Inattentive, and
10 years		Oppositional-Defiant Behaviors in Childhood and Antisocial Behavior in Adolescence: The Moderating
		Influence of Gender and the Parent-Child Relationship Quality. Child Psychiatry Hum Dev. 2016;47(6):857-
		870. doi:10.1007/s10578-015-0617-0
Follow-up	N/A	Gokcen C, Coskun S, Kutuk MO. Comparison of Depression and Burnout Levels of Mothers of Children
clinical trial		with Attention-Deficit Hyperactivity Disorder Before and After Treatment. J Child Adolesc
		Psychopharmacol. 2018;28(5):350-353. doi:10.1089/cap.2017.0050

No validated ADHD diag at baseline and/or follow-up	N/A	Goldstein HS. Cognitive development in inattentive, hyperactive, and aggressive children: two- to five- year follow-up. J Am Acad Child Adolesc Psychiatry. 1987;26(2):219-221. doi:10.1097/00004583- 198703000-00017
Follow-up duration < 4 years	N/A	Greenson, J. N. (2001). A longitudinal study of attention-deficit/hyperactivity disorder symptoms in preschool-age <i>children</i> . Utah State University.
Follow-up duration < 4 years	N/A	Halevi G, Djalovski A, Vengrober A, <i>Feldman R. Risk and resilience trajectories in war-exposed children</i> across the first decade of life. <i>J Child Psychol Psychiatry</i> . 2016;57(10):1183-1193. doi:10.1111/jcpp.12622
Age baseline >= 10 years	N/A	Hillegers MH, Reichart CG, Wals M, Verhulst FC, Ormel J, Nolen WA. Five-year prospective outcome of psychopathology in the adolescent offspring <i>of bipolar parents</i> . Bipolar Disord. 2005;7(4):344-350. doi:10.1111/j.1399-5618.2005.00215.x
Follow-up clinical trial	N/A	Howard AL, Kennedy TM, Macdonald EP, et al. Depression and ADHD-Related Risk for Substance Use in Adolescence and Early Adulthood: Concurrent and Prospective Associations in <i>the</i> MTA. J Abnorm Child Psychol. 2019;47(12):1903-1916. doi:10.1007/s10802-019-00573-y
No validated ADHD diag at baseline and/or follow-up	N/A	Jaber L, Kirsh D, Diamond G, Shuper A. Long-Term Functional Outcomes in Israeli Adults Diagnosed in Childhood with Attention Deficit Hyperactivity Disorder. Isr Med Assoc J. 2015;17(8):481-485.
age follow up < 10 years	N/A	Jusiene R, Breidokiene R, Pakalniskiene V. Developmental trajectories of mother reported regulatory problems from toddlerhood to preschool age. Infant Behav Dev. 2015;40:84-94. <i>doi:</i> 10.1016/j.infbeh.2015.04.003
Follow-up duration < 4 years	N/A	Kim KM, Ha M, Lim MH, et al. The Symptom Trajectory of Attention-Deficit Hyperactivity Disorder in Korean School-Age <i>Children</i> . <i>Psychiatry</i> Investig. 2018;15(5):470-475. doi:10.30773/pi.2017.11.01.1
No validated ADHD diag at baseline and/or follow-up	N/A	Lynn DE, Lubke G, Yang M, et al. Temperament and character profiles and the dopamine D4 receptor gene in ADHD. <i>Am</i> J Psychiatry. 2005;162(5):906-913. doi:10.1176/appi.ajp.162.5.906

Follow-up clinical trial	N/A	Lynne-Landsman SD, Bradshaw CP, Ialongo NS. Testing a developmental cascade model of adolescent substance use trajectories and young adult adjustment. Dev <i>Psychopathol. 2010</i> ;22(4):933-948. doi:10.1017/S0954579410000556
Not a prospective cohort study	N/A	Majeed, M. H., & Zafar, M. K. (2016). ADHD symptoms are stable, then a sudden relapse. Current <i>Psychiatry</i> , 15(10-A), 26.
Not a prospective cohort study	N/A	Mak ADP, Chan AKW, Chan PKL, et al. Diagnostic Outcomes of Childhood ADHD in Chinese Adults. J Atten Disord. 2020;24(1):126-135. doi:10.1177/1087054718802015
Notaprospectivecohort study	N/A	Cumyn, L., French, L., & Hechtman, L. (2009). Comorbidity in adults with attention-deficit <i>hyperactivity disorder</i> . The Canadian Journal of Psychiatry, 54(10), 673-683.
Follow-up duration < 4 years	N/A	Masi G, Toni C, Perugi G, et al. Externalizing disorders in consecutively referred children and adolescents with bipolar disorder. <i>Compr Psychiatry</i> . 2003;44(3):184-189. doi:10.1016/S0010-440X(03)00002-6
No validated ADHD diag at baseline and/or follow-up	N/A	Mendelson W, Johnson N, Stewart MA. Hyperactive children as teenagers: a follow-up study. J Nerv Ment Dis. 1971;153(4):273-279. doi:10.1097/00005053-197110000-00005
No validated ADHD diag at baseline and/or follow-up	N/A	Merrell, C., Sayal, K., Tymms, P., & Kasim, A. (2017). <i>A longitudinal</i> study of the association between inattention, hyperactivity and impulsivity and children's academic attainment at age 11. <i>Learning and Individual Differences</i> , <i>53</i> , 156-161.
No validated ADHD diag at baseline and/or follow-up	N/A	Minde K, Lewin D, Weiss G, Lavigueur H, Douglas V, Sykes E. The hyperactive child in elementary school: a 5 year, controlled, followup. Except Child. 1971;38(3):215-221. doi:10.1177/001440297103800304
Follow-up clinical trial	N/A	Nelson T, East P, Delva J, Lozoff B, Gahagan S. Children's Inattention and Hyperactivity, Mother's Parenting, and Risk Behaviors in Adolescence: A 10-Year Longitudinal <i>Study</i> of Chilean Children. J Dev Behav Pediatr. 2019;40(4):249-256. doi:10.1097/DBP.0000000000661

No validated	N/A	Oerbeck B, Overgaard KR, Aspenes ST, et al. ADHD, comorbid disorders and psychosocial functioning:
ADHD diag at		How representative is a child cohort study? Findings from a national patient registry. BMC Psychiatry.
baseline and/or		2017;17(1):23. Published 2017 Jan 17. doi:10.1186/s12888-017-1204-7
follow-up		
No validated	N/A	Pazvantoğlu O, Aker AA, Karabekiroğlu K, et al. Neuropsychological weaknesses in adult ADHD;
ADHD diag at		cognitive functions as core deficit and roles of them in persistence to adulthood. J Int Neuropsychol Soc.
baseline and/or		2012;18(5):819-826. doi:10.1017/S1355617712000574
follow-up		
Not a	N/A	Philipp-Wiegmann F, Rösler M, Clasen O, Zinnow T, Retz-Junginger P, Retz W. ADHD modulates the
prospective		course of delinquency: a 15-year follow-up study of young incarcerated man. Eur Arch Psychiatry Clin
cohort study		Neurosci. 2018;268(4):391-399. doi:10.1007/s00406-017-0816-8
Not a	N/A	Poil SS, Bollmann S, Ghisleni C, et al. Age dependent electroencephalographic changes in attention-
prospective		deficit/hyperactivity disorder (ADHD). Clin Neurophysiol. 2014;125(8):1626-1638.
cohort study		doi:10.1016/j.clinph.2013.12.118
Age baseline >=	N/A	Qian Y, Chang W, He X, et al. Emotional dysregulation of ADHD in childhood predicts poor early-
10 years		adulthood outcomes: A prospective follow up study. Res Dev Disabil. 2016;59:428-436.
5		doi:10.1016/j.ridd.2016.09.022
Not a	N/A	Rad F, Buică A, Stancu M, et al. Adult ADHD symptoms in a group of patients with substance abuse. Riv
prospective		Psichiatr. 2020;55(3):161-167. doi:10.1708/3382.33572
cohort study		
Not a	N/A	Ramtekkar UP, Reiersen AM, Todorov AA, Todd RD. Sex and age differences in attention-
prospective		deficit/hyperactivity disorder symptoms and diagnoses: implications for DSM-V and ICD-11. J Am Acad
cohort study		Child Adolesc Psychiatry. 2010;49(3):217-28.e283.
Not a	N/A	Richards T, Abbott RD, Berninger VW. Relationships between Presence or Absence of ADHD and fMRI
prospective		Connectivity Writing Tasks in Children with Dysgraphia. J Nat Sci. 2016;2(12):e270.
cohort study		
Not a	N/A	Sánchez-Mora C, Cormand B, Ramos-Quiroga JA, et al. Evaluation of common variants in 16 genes
prospective		involved in the regulation of neurotransmitter release in ADHD. Eur Neuropsychopharmacol.
cohort study		2013;23(6):426-435. doi:10.1016/j.euroneuro.2012.07.014
Follow-up	N/A	Sayal K, Mills J, White K, Merrell C, Tymms P. Predictors of and barriers to service use for children at
clinical trial		risk of ADHD: longitudinal study. Eur Child Adolesc Psychiatry. 2015;24(5):545-552.
		doi:10.1007/s00787-014-0606-z

Age baseline >= 10 years	N/A	Shprecher DR, Rubenstein LA, Gannon K, Frank SA, Kurlan R. Temporal course of the tourette syndrome clinical triad. Tremor Other Hyperkinet Mov (N Y). 2014;4:243. Published 2014 Sep 26. doi:10.7916/D8HD7SV6
Not a prospective cohort study	N/A	Sivakumar T, Agarwal V, Sitholey P. Comorbidity of attention-deficit/hyperactivity disorder and bipolar disorder in North Indian clinic children and <i>adolescents</i> . <i>Asian J Psychiatr. 2013</i> ;6(3):235-242. doi:10.1016/j.ajp.2012.12.011
Notaprospectivecohort study	N/A	Thapar A, Langley K, Fowler T, et al. Catechol O-methyltransferase gene variant and birth weight predict early-onset antisocial behavior in children <i>with attention-deficit/</i> hyperactivity disorder. Arch Gen Psychiatry. 2005;62(11):1275-1278. doi:10.1001/archpsyc.62.11.1275
Follow-up duration < 4 years	N/A	Tso W, Chan M, Ho FK, et al. Early sleep deprivation and attention-deficit/hyperactivity disorder. Pediatr Res. 2019;85(4):449-455. doi:10.1038/s41390-019-0280-4
Not a prospective cohort study	N/A	Walitza S, Zellmann H, Irblich B, et al. Children and adolescents with obsessive-compulsive disorder and comorbid <i>attention-deficit</i> /hyperactivity disorder: preliminary results of a prospective follow-up study. <i>J Neural Transm (Vienna)</i> . 2008;115(2):187-190. doi:10.1007/s00702-007-0841-2
Follow-up clinical trial	N/A	Wang LJ, Huang YS, Chiang YL, Hsiao CC, Shang ZY, Chen CK. Clinical symptoms and performance on the Continuous Performance Test in children with attention deficit <i>hyperactivity disorder between subtypes:</i> a natural follow-up study for 6 months. BMC Psychiatry. 2011;11:65. Published 2011 Apr 19. doi:10.1186/1471-244X-11-65
Follow-up clinical trial	N/A	White D, McPherson L, Lennox N, Ware RS. Injury among adolescents with intellectual disability: A prospective cohort study. Injury. 2018;49(6):1091-1096. doi:10.1016/j.injury.2018.04.006
Not a prospective cohort study	N/A	Woon LSC, Zakaria H. Adult Attention Deficit Hyperactivity Disorder in a Malaysian Forensic Mental Hospital: a Cross-sectional Study. East Asian Arch Psychiatry. 2019;29(4):118-123. doi:10.12809/eaap1851
No validated ADHD diag at baseline and/or follow-up	N/A	Young S, Chadwick O, Heptinstall E, Taylor E, Sonuga-Barke EJ. The adolescent outcome of hyperactive girls. Self-reported <i>interpersonal relationships and</i> coping mechanisms. Eur Child Adolesc Psychiatry. 2005;14(5):245-253. doi:10.1007/s00787-005-0461-z
Follow-up duration < 4 years	N/A	Max JE, Arndt S, Castillo CS, et al. Attention-deficit hyperactivity symptomatology after traumatic brain injury: a prospective study. J Am Acad Child Adolesc <i>Psychiatry</i> . <i>1998;37</i> (8):841-847. doi:10.1097/00004583-199808000-00014

No validated	N/A	Agnew-Blais, J., Seidman, L. J., & Buka, S. (2012, June). PREDICTORS OF PERSISTENCE OF
ADHD diag at		ATTENTION DEFICIT HYPERACTIVITY DISORDER FROM CHILDHOOD TO MIDLIFE.
baseline and/or		In AMERICAN JOURNAL OF EPIDEMIOLOGY (Vol. 175, pp. \$132-\$132). JOURNALS DEPT, 2001 EVANS
follow-up		RD, CARY, NC 27513 USA: OXFORD UNIV PRESS INC.
age follow up <	N/A	Allmann AES, Klein DN, Kopala-Sibley DC. Bidirectional and transactional relationships between
10 years		parenting styles and child symptoms of ADHD, ODD, depression, and anxiety over 6 years. Dev
		Psychopathol. 2022;34(4):1400-1411. doi:10.1017/S0954579421000201
No validated	N/A	Ando, J., Shikishima, C., Kijima, N., Hiraishi, K., Takahashi, Y., & Yamagata, S. (2013, November).
ADHD diag at		Long-term genetic effects of working memory on cognition and personality in adolescence and adulthood:
baseline and/or		A 14-year longitudinal study of twins. In BEHAVIOR GENETICS (Vol. 43, No. 6, pp. 506-506). 233 SPRING ST, NEW
follow-up		YORK, NY 10013 USA: SPRINGER.
Age baseline >=	N/A	Atherton OE, Lawson KM, Ferrer E, Robins RW. The role of effortful control in the development of
10 years		ADHD, ODD, and CD symptoms. J Pers Soc Psychol. 2020;118(6):1226-1246.
		doi:10.1037/pspp0000243
No validated	N/A	Paternite CE, Loney J, Salisbury H, Whaley MA. Childhood inattention-overactivity, aggression, and
ADHD diag at		stimulant medication history as predictors of young adult outcomes. J Child Adolesc Psychopharmacol.
baseline and/or		1999;9(3):169-184. doi:10.1089/cap.1999.9.169
follow-up		
Follow-up	N/A	Colomer-Diago C, Berenguer-Forner C, Tárraga-Mínguez R, Miranda-Casas A. Estilos de disciplina y
duration $< 4$		trastornos comórbidos de adolescentes con trastorno por déficit de atención/hiperactividad. Un estudio
years		longitudinal [Discipline styles and co-morbid disorders of adolescents with attention deficit hyperactivity
		disorder: a longitudinal study]. Rev Neurol. 2014;58 Suppl 1:S31-S36.
No validated	N/A	Fernandez Castelao C, Kröner-Herwig B. Developmental trajectories and predictors of externalizing
ADHD diag at		behavior: a comparison of girls and boys. J Youth Adolesc. 2014;43(5):775-789. doi:10.1007/s10964-
baseline and/or		013-0011-9
follow-up		
Follow-up	N/A	Geryk, L. L. (2013). Investigating developmental patterns of symptom and impairment change among
duration $< 4$		youth with ADHD, subthreshold ADHD and youth without ADHD (Doctoral dissertation, University of
years		South Carolina).
No validated	N/A	Gornick MC, Addington A, Shaw P, et al. Association of the dopamine receptor D4 (DRD4) gene 7-
ADHD diag at		repeat allele with children with attention-deficit/hyperactivity disorder (ADHD): an update. Am J Med
		Genet B Neuropsychiatr Genet. 2007;144B(3):379-382. doi:10.1002/ajmg.b.30460

baseline and/or		
follow-up		
Number of ADHD cases < 10	N/A	Hayward, D., Rhodes, S. M., Grimmer, C., Matthews, K., & Coghill, D. R. (2010). The impact of ADHD on neuropsychological development in early <i>adolescence: a longitudinal case–control</i> study. European Child & Adolescent Psychiatry, 19.
Follow-up duration < 4 years	N/A	Howell DC, Huessy HR, Hassuk B. Fifteen-year follow-up of a behavioral history of attention deficit disorder. Pediatrics. 1985;76(2):185-190.
No validated ADHD diag at baseline and/or follow-up	N/A	Huessy, H. R., & Howell, D. C. (1988). The behaviors associated with ADD followed from age seven to twenty-one: Differences between males and females. <i>Attention Deficit Disorder</i> , <i>3</i> , 20-28.
No validated ADHD diag at baseline and/or follow-up	N/A	Kiss E, Baji I, Kellner A, Mayer L, Kapornai K. Psychiatr Hung. 2020;35(1):58-67.
No validated ADHD diag at baseline and/or follow-up	N/A	Menkes MM, Rowe JS, Menkes JH. A twenty-five year follow-up study <i>on</i> the hyperkinetic child with minimal brain dysfunction. <i>Pediatrics</i> . 1967;39(3):393-399.
age follow up < 10 years	N/A	Neece, C. L. (2011). Dual Diagnosis: An examination of the validity of an ADHD diagnosis among adolescents with intellectual disabilities. University of California, Los Angeles.
Not a prospective cohort study	N/A	Owens, E. B., Cardoos, S. L., & Hinshaw, S. P. (2015). Developmental progression and gender differences among individuals with ADHD.
Age baseline >= 10 years	N/A	ROYER, E., COUTURE, C., FORTIN, L., POTVIN, P., & MARCOTTE, D. (2000). Problèmes d'attention et réussite scolaire au secondaire. <i>Revue canadienne de psycho-éducation</i> , <i>29</i> (2), 193-206.
Not a prospective cohort study	N/A	Scahill L, Williams S, Schwab-Stone M, Applegate J, Leckman JF. Disruptive behavior problems in a community sample of children with tic disorders. Adv Neurol. 2006;99:184-190.

Not a	N/A	Tuithof, M., Ten Have, M., Van Dorsselaer, S., & De Graaf, R. (2014). Prevalentie, persistentie en
prospective		gevolgen van <i>ADHD</i> in de Nederlandse volwassen bevolking. <i>Tijdschrift voor psychiatrie</i> , (2014/1), 10-19.
cohort study		
Age baseline >=	N/A	van den Ban, E., van der Heijden, K., Verhaar, L., Souverein, P. C., van Engeland, H., Egberts, T. A.,
10 years		& Swaab, H. (2012, August). The Association between ADHD Treatment in Childhood and Substance Use and
		Abuse in Adults-A Long-Term Follow-Up. In PHARMACOEPIDEMIOLOGY AND DRUG SAFETY (Vol. 21, pp. 142-142).
		ONE MONTGOMERY ST, SUITE 1200, SAN FRANCISCO, CA 94104 USA: WILEY PERIODICALS, INC.
Age baseline >=	N/A	Woods, S. S. (1981). Follow-up study of 64 hyperactive children in adolescence. University of Michigan.
10 years		

Supplementary S8. Descriptive analyses.

Supplementary analyses can be retrieved at Section S8, https://simba-

adhd.com/HTMLresults.html

Figure S8. Location of studies. Color of the circles indicates the number of studies per country while the size of the circles represents the number of participants.



Supplementary Text S9. Relative age effect at baseline.

Supplementary analyses can be retrieved at Section S9, https://simba-

adhd.com/HTMLresults.html

Figure S9. Effect of the relative age on the ADHD diagnosis at baseline.

Association of relative age with										
Study	Ν	childhood ADHD	OR	95%-CI	Weight					
28 - MCS	10054	je Li	1.03	[1.01; 1.06]	15.0%					
29 - LSAC	3990		1.01	[0.98; 1.04]	12.9%					
31 - E-risk	2232		1.07	[1.01; 1.14]	6.4%					
37 - CJCCS	1208		1.03	[0.91; 1.17]	1.8%					
43 - PELOTAS	3583	- <u>+</u>	1.07	[1.01; 1.14]	<b>6</b> .1%					
48 - INMA	1764	-	1.12	[1.07; 1.18]	8.0%					
54 - DNBC	49299	e	1.04	[1.02; 1.05]	20.6%					
60 - BHRC	4416		1.02	[0.99; 1.06]	12.5%					
61 - CATSS	12207	+	1.03	[1.01; 1.05]	16.9%					
<b>Pooled Effect Size</b> Heterogeneity: $I^2 = 50\%$	88753 Г		1.04	[1.02; 1.06]	100.0%					
$\tau^2 = 0.0003, p = 0.04$	0.5	5 1 2								

## Supplementary Text S10. Primary analysis.

Supplementary analyses can be retrieved at Section S10, https://simba-

#### adhd.com/HTMLresults.html

	Association of relative age with						
Study	N	persistence of ADHD	OR	95%-CI	Weight		
23 - ALSPAC	57	m	1.21	[0.83: 1.76]	0.8%		
24 - CLASS	96		0.98	[0.85: 1.13]	3.3%		
25 - MGH-bovs	49		1.13	[0.94: 1.36]	2.4%		
26 - MGH-airls	46	· ·	1.18	[1.00: 1.40]	2.7%		
27 - Li	38		0.98	[0.83: 1.17]	2.6%		
28 - MCS	567	<u><u> </u></u>	1.01	[0.95; 1.08]	3.3%		
28 - MCS	436	1:	1.02	[0.96, 1.10]	3.0%		
29 - LSAC	242		0.95	[0.88: 1.03]	4.0%		
29 - LSAC	131		0.95	[0.84; 1.08]	1.7%		
30 - IMAGE-UK	33		1.01	[0.74; 1.39]	1.1%		
31 - E-risk	63	÷	1.25	[1.01; 1.55]	2.0%		
32 - BCS	134		0.97	[0.86; 1.09]	3.9%		
33 - NYS	101	<b>.</b>	0.85	[0.74; 0.97]	3.4%		
34 - Rosenbaum	23		0.88	[0.71; 1.08]	2.0%		
35 - SAGE	40		0.89	[0.73; 1.07]	2.3%		
36 - GELLER	44	<b>.</b>	0.97	[0.81, 1.16]	2.5%		
37 - CJCCS	14 ←		→ 1.00	[0.00; Inf]	0.0%		
38 - LSUY	74		1.09	[0.96; 1.23]	3.7%		
39 - ADSU	25		1.17	[0.94, 1.46]	1.9%		
40 - BGALS	67	- <u></u>	1.05	[0.92; 1.20]	3.4%		
41 - MPHC	14 ←		→ 1.00	[0.00; Inf]	0.0%		
42 - MILWAUKEE	101		1.10	[0.97; 1.26]	3.6%		
43 - PELOTAS	77	<u>i</u>	1.00	[0.87; 1.14]	3.5%		
44 - Fenesy	163		1.03	[0.94; 1.14]	4.6%		
45 - Lindahl	44		0.83	[0.67; 1.03]	1.9%		
46 - TEMPO	22		0.89	[0.66; 1.20]	1.2%		
47 - Ercan	65		1.04	[0.90; 1.20]	3.3%		
48 - INMA	22		1.08	[0.78; 1.48]	1.0%		
49 - Masi	20		→ 1.48	[1.03; 2.14]	0.8%		
50 - CAP	54		1.18	[1.00; 1.39]	2.8%		
51 - ERICA	41 ←		→ 1.00	[0.00; Inf]	0.0%		
52 - DNTC	18		0.90	[0.68; 1.19]	1.3%		
53 - GSMS	11		1.17	[0.85; 1.61]	1.0%		
54 - DNBC	813		1.02	[0.97; 1.06]	6.4%		
55 - UPPSALA	17		× 1.41	[0.88; 2.25]	0.5%		
56 - IMAGE-SPAIN	30		0.87	[0.70; 1.08]	2.0%		
57 - VIBeS	18 ←		0.61	[0.38; 0.99]	0.5%		
58 - MARS	22		0.91	[0.70; 1.17]	1.5%		
59 - LINEUP	10		0.87	[0.61; 1.24]	0.9%		
60 - BHRC	16		1.20	[0.83; 1.73]	0.8%		
61 - CATSS	813		1.01	[0.96; 1.06]	6.3%		
62 - ADSAT	22		1.21	[1.13; 1.30]	5.6%		
63 - QNTS	15		1.16	[0.73; 1.87]	0.5%		
Pooled Effect Size	4708	•	1.02	[0.99; 1.06]	100.0%		
Heterogeneity: $l^2 = 45\%$ , $\tau^2 = 0.0045$ , $p < 0.01$	0.5	1	2				

Supplementary Text S11. Sensitivity analysis.

Supplementary analyses can be retrieved at Section S11, https://simba-

adhd.com/HTMLresults.html

Figure S11a. Sensitivity analysis with participants born in the months of birth close to the school-entry cut-off date removed.

Association of relative age with										
Study	Ν	persistence of ADHD	OR	95%-CI	Weight					
25 - MGH-boys	34		1 04	[0 76 <sup>.</sup> 1 41]	3 1%					
26 - MGH-girls	22		1.04	[0.76, 1.41]	1.6%					
28 - MCS	403		0.99	[0.89: 1.11]	26.6%					
28 - MCS	295		1 00	[0.89 1 14]	19.9%					
31 - F-risk	37	<del>_</del>	0.99	[0.62; 1.58]	1 4%					
34 - Rosenbaum	10		$\rightarrow 1.52$	[0.86: 2.69]	0.9%					
36 - GELLER	29		1 04	[0.74, 1.47]	2.6%					
37 - CJCCS	_0 10 ←		→ 1.00	[0.00: Infl	0.0%					
38 - LSUY	44		0.79	[0.60: 1.03]	4.1%					
39 - ADSU	15		1.17	[0.78: 1.75]	1.9%					
40 - BGALS	43		1.21	[0.93; 1.57]	4.4%					
42 - MILWAUKEE	73		1.12	[0.91; 1.39]	6.9%					
43 - PELOTAS	45		0.96	[0.75; 1.24]	4.8%					
44 - Fenesy	115	<del></del>	1.00	[0.84; 1.17]	11.3%					
47 - Ercan	41		0.98	[0.74; 1.30]	3.9%					
48 - INMA	16	+	→ 1.25	[0.63; 2.48]	0.6%					
51 - ERICA	26 ←		→ 1.00	[0.00; Inf]	0.0%					
52 - DNTC	10 ↔		0.57	[0.26; 1.25]	0.5%					
55 - UPPSALA	12		→ 2.34	[0.85; 6.50]	0.3%					
56 - IMAGE-SPAIN	14 ←		0.47	[0.18; 1.24]	0.3%					
62 - ADSAT	13		0.89	[0.69; 1.16]	4.4%					
63 - QNTS	11	+	→ 1.52	[0.66; 3.48]	0.4%					
Pooled Effect Size	1318	•	1.01	[0.95; 1.06]	100.0%					
Heterogeneity: $I^2 = 0\%$ ,										
$\tau^2 < 0.0001, p = 0.65$	0.5	1	2							

Association of relative age with								
Study	Ν	persistence of ADHD	OR	95%-CI	Weight			
25 - MGH-boys	48	+	1.14	[0.95; 1.38]	10.6%			
26 - MGH-girls	33	+ +	1.18	[0.96; 1.46]	9.2%			
27 - Li	11		1.04	[0.76; 1.41]	5.7%			
33 - NYS	101	— • —	0.85	[0.74; 0.97]	13.5%			
38 - LSUY	23		1.12	[0.89; 1.39]	8.7%			
40 - BGALS	67		1.05	[0.92; 1.20]	13.6%			
42 - MILWAUKEE	101	÷ •	1.10	[0.97; 1.26]	13.9%			
45 - Lindahl	44		0.83	[0.67; 1.03]	8.8%			
56 - IMAGE-SPAIN	27		0.88	[0.70; 1.09]	8.8%			
58 - MARS	22		0.91	[0.70; 1.17]	7.2%			
<b>Pooled Effect Size</b> Heterogeneity: $l^2 = 50\%$ .	477		_ <b>1.00</b>	[0.92; 1.09]	100.0%			
$\tau^2 = 0.0092, p = 0.03$	0.5	1	2					

Figure S11b. Sensitivity analysis including only participants with a follow-up duration longer than 10 years.

Figure S11c. Sensitivity analysis including only participants with a baseline diagnosis made before the age of 8 and the follow-up diagnosis made after the age of 16.

Association of relative age with										
Study	Ν	persistence of ADHD	OR	95%-CI	Weight					
25 - MGH-boys	35		1.04	[0.82; 1.31]	11.7%					
26 - MGH-girls	26		1.22	[0.97; 1.52]	11.9%					
32 - BCS	50		0.82	[0.67; 1.00]	12.8%					
33 - NYS	62		0.82	[0.69; 0.97]	14.3%					
35 - SAGE	12 ←		0.65	[0.40; 1.05]	5.1%					
38 - LSUY	24		1.12	[0.91; 1.36]	12.9%					
40 - BGALS	22 ←		0.69	[0.43; 1.11]	5.3%					
42 - MILWAUKEE	62		1.17	[1.00; 1.39]	14.3%					
56 - IMAGE-SPAIN	24		0.89	[0.71; 1.12]	11.9%					
Pooled Effect Size	317		0.96	[0.84; 1.09]	100.0%					
$\tau^2 = 0.0234, p < 0.01$	0.5	1 2								

Figure S11d. Sensitivity analysis including only participants with the same ADHD measure at baseline and follow-up.

Study	As: N	sociation of relative age with persistence of ADHD	h OR	95%-CI	Weight
24 - CLASS	79		1.01	[0.86; 1.19]	5.8%
28 - MCS	567		1.01	[0.95; 1.08]	6.7%
28 - MCS	436		1.02	[0.96; 1.10]	<b>6</b> .1%
29 - LSAC	242		0.95	[0.88; 1.03]	<b>8</b> .1%
29 - LSAC	131		0.95	[0.84; 1.08]	3.4%
31 - E-risk	63		1.25	[1.01; 1.55]	4.1%
36 - GELLER	44		0.97	[0.81; 1.16]	5.1%
37 - CJCCS	14 ←		1.00	[0.00; Inf]	0.0%
41 - MPHC	14 ←		1.00	[0.00; Inf]	0.0%
43 - PELOTAS	77		1.00	[0.87; 1.14]	7.1%
44 - Fenesy	163		1.03	[0.94; 1.14]	9.3%
47 - Ercan	65		1.04	[0.90; 1.20]	6.8%
48 - INMA	22	w	1.08	[0.78; 1.48]	2.1%
49 - Masi	20		1.48	[1.03; 2.14]	1.7%
50 - CAP	54		1.18	[1.00; 1.39]	5.7%
53 - GSMS	11		1.17	[0.85; 1.61]	2.2%
54 - DNBC	813		1.02	[0.97; 1.06]	13.0%
60 - BHRC	16		1.20	[0.83; 1.73]	1.7%
62 - ADSAT	22	-	1.21	[1.13; 1.30]	11.3%
Pooled Effect Size Heterogeneity: $I^2 = 52\%$ ,	2853	•	1.06	[1.01; 1.11]	100.0%
τ <sup>2</sup> = 0.0047, <i>p</i> < 0.01	0.5	1	2		

#### Supplementary Text S12. Robustness checks.

Supplementary analyses can be retrieved at Section S12, https://simba-

adhd.com/HTMLresults.html

Figure S12a. Robustness analysis excluding two studies with a large Cook's distance.

	Association of relative age with							
Study	Ν	persistence of ADHD	OR	95%-CI	Weight			
23 - ALSPAC	57		1.21	[0.83; 1.76]	0.8%			
24 - CLASS	96		0.98	[0.85; 1.13]	3.4%			
25 - MGH-bovs	49		1.13	0.94: 1.36	2.5%			
26 - MGH-girls	46		1.18	[1.00; 1.40]	2.8%			
27 - Li	38		0.98	[0.83: 1.17]	2.6%			
28 - MCS	567	÷	1.01	[0.95; 1.08]	3.4%			
28 - MCS	436	<u>+</u>	1.02	0.96: 1.10	3.1%			
29 - LSAC	242		0.95	0.88: 1.03	4.1%			
29 - LSAC	131	<u> </u>	0.95	[0.84: 1.08]	1.7%			
30 - IMAGE-UK	33		1.01	[0.74: 1.39]	1.1%			
31 - E-risk	63		1.25	[1.01; 1.55]	2.0%			
32 - BCS	134		0.97	[0 86 1 09]	4 0%			
33 - NYS	101		0.85	[0.74, 0.97]	3.5%			
34 - Rosenbaum	23		0.88	[0.71, 0.07]	2.1%			
36 - GELLER	44		0.00	[0.81:1.16]	2.1%			
37 - CICCS	14 ←	,	· 1 00	[0.00 · Infl	0.0%			
38 - 1 SUV	7/	_ <u>_</u>	1.00	[0.00, III]	3.8%			
	25		1 17	[0.30, 1.23]	1 9%			
	67		1.17	[0.04, 1.40]	3.5%			
	07 1∕I ←		1.00	[0.02, 1.20]	0.0%			
	101		1 10	[0.00, III]	3.7%			
	77		1.10	[0.97, 1.20]	3.6%			
43 - FELOTAS	163		1.00	[0.07, 1.14]	J.0 /0			
44 - Fellesy 45 Lindahl	105		1.03	[0.94, 1.14]	4.7 /0			
	44		0.03	[0.07, 1.03]	1.970			
40 - TEINFO	22		1.04	[0.00, 1.20]	1.270 2.40/			
	00		1.04	[0.90, 1.20]	J.4 %			
	22		1.00	[0.70, 1.40]	1.0%			
	20		1.40	[1.03, 2.14]	0.0%			
	54 44 4		1.10	[1.00, 1.39]	2.0%			
	41 ~	_	. 1.00		0.0%			
	10		0.90		1.3%			
	11		1.17					
	813	li a s	1.02	[0.97; 1.06]	0.7%			
	17	_	· 1.41	[0.88; 2.25]	0.5%			
56 - IMAGE-SPAIN	30		0.87	[0.70; 1.08]	2.0%			
57 - VIBeS	18	-	0.61	[0.38; 0.99]	0.5%			
	22		0.91	[0.70; 1.17]	1.5%			
59 - LINEUP	10		0.87	[0.61; 1.24]	0.9%			
60 - BHRC	16		1.20	[0.83; 1.73]	0.8%			
61 - CAISS	813	<u> </u>	1.01	[0.96; 1.06]	6.5%			
62 - ADSAT	22		1.21	[1.13; 1.30]	5.7%			
63 - QNTS	15		1.16	[0.73; 1.87]	0.5%			
Pooled Effect Size	4668	•	1.03	[0.99; 1.06]	100.0%			
Heterogeneity: $I^2 = 44\%$ ,	I 	1	1					
$\tau^2 = 0.0044, p < 0.01$	0.5	1 2	2					

Figure S12b. Robustness analysis using robust regressions to analyse primary studies (note that studies below the horizontal lines were analyzed using survey-weighted regression [and not robust regression] due to their complex survey design).

	Association of relative age with						
Study	Ν	persistence of ADHD	OR	95%-CI	Weight		
23 - ALSPAC	57		1.14	[0.78; 1.66]	0.8%		
24 - CLASS	96		0.98	[0.85; 1.13]	3.2%		
25 - MGH-boys	49		1.12	[0.93; 1.34]	2.4%		
26 - MGH-girls	46		1.19	[1.00; 1.42]	2.6%		
27 - Li	38		0.98	[0.83; 1.17]	2.6%		
30 - IMAGE-UK	33		1.01	[0.73; 1.40]	1.0%		
32 - BCS	134		0.97	[0.86; 1.09]	3.9%		
33 - NYS	101		0.84	[0.73; 0.97]	3.3%		
34 - Rosenbaum	23		0.88	[0.72; 1.09]	2.0%		
35 - SAGE	40		0.89	[0.74; 1.08]	2.3%		
36 - GELLER	44		0.96	[0.81; 1.16]	2.5%		
37 - CJCCS	14 ←		→ 1.00	[0.00; Inf]	0.0%		
38 - LSUY	74		1.09	[0.96; 1.24]	3.7%		
39 - ADSU	25		1.17	[0.94; 1.46]	1.9%		
40 - BGALS	67		1.05	[0.92; 1.20]	3.4%		
41 - MPHC	14 ←		→ 1.00	[0.00; Inf]	0.0%		
42 - MILWAUKEE	101		1.10	[0.96; 1.25]	3.6%		
43 - PELOTAS	77		1.00	[0.87; 1.14]	3.5%		
44 - Fenesy	163	- <u></u>	1.03	[0.93; 1.14]	4.6%		
45 - Lindahl	44		0.84	[0.68; 1.05]	1.9%		
46 - TEMPO	22		0.90	[0.67; 1.22]	1.2%		
47 - Ercan	65		1.04	[0.90; 1.19]	3.3%		
48 - INMA	22		1.11	[0.79; 1.54]	1.0%		
49 - Masi	20		1.37	[1.00; 1.88]	1.1%		
50 - CAP	54		1.17	[0.99; 1.38]	2.8%		
51 - ERICA	41 ←		→ 1.00	[0.00; Inf]	0.0%		
52 - DNTC	18		0.90	[0.68; 1.20]	1.3%		
54 - DNBC	813		1.02	[0.97; 1.06]	6.5%		
55 - UPPSALA	17		→ 1.31	[0.85; 2.01]	0.6%		
56 - IMAGE-SPAIN	30		0.85	[0.67; 1.06]	1.8%		
57 - VIBeS	18 ←	-	0.63	[0.39; 1.04]	0.5%		
58 - MARS	22		0.91	[0.70; 1.18]	1.5%		
59 - LINEUP	10		0.88	[0.62; 1.25]	0.9%		
60 - BHRC	16		1.16	[0.81; 1.66]	0.8%		
<u>63 - QNTS</u>	15		1.10	[0.68; 1.78]	0.5%		
28 - MCS	567	1:	1.01	[0.95; 1.08]	3.4%		
28 - MCS	436		1.02	[0.96; 1.10]	3.1%		
29 - LSAC	242		0.95	[0.88; 1.03]	4.1%		
29 - LSAC	131		0.95	[0.84; 1.08]	1.7%		
31 - E-risk	63		1.25	[1.01; 1.55]	2.0%		
53 - GSMS	11		1.17	[0.85; 1.61]	1.0%		
61 - CAISS	813	T	1.01	[0.96; 1.06]	6.4%		
62 - ADSAT	22	-	1.21	[1.13; 1.30]	5.6%		
Pooled Effect Size	4708	•	1.02	[0.99; 1.06]	100.0%		
Heterogeneity: $I^2 = 42\%$ ,		1	1				
$\tau^2 = 0.0044, p < 0.01$	0.5	1	2				

Study	Ν	persistence of ADHD	OR	95%-CI	Weight
25 - MGH-boys	31 —	→	2.57	[0.52: 12.72]	3.0%
26 - MGH-airls	34		3.73	[0.85: 16.44]	3.5%
28 - MCS	372		1.07	[0.64: 1.79]	23.0%
28 - MCS	299		1.07	[0.58: 1.96]	16.6%
31 - E-risk	45		3.76	[0.65: 21.80]	2.5%
34 - Rosenbaum	20 ←		0.64	[0.10: 4.10]	2.3%
36 - GELLER	31 ←≖-		0.55	[0.12: 2.65]	3.2%
37 - CJCCS	11 ←			[0.00; Inf]	0.0%
38 - LSUY	54 ←		1.19	[0.41: 3.48]	6.6%
39 - ADSU	22		4.67	[0.77: 28.47]	2.4%
40 - BGALS	48 -		1.82	[0.56; 5.87]	5.6%
41 - MPHC	12 ←			[0.00; Inf]	0.0%
42 - MILWAUKEE	69	<u>↓</u>	2.99	[0.98; 9.16]	6.1%
43 - PELOTAS	<mark>58</mark> ←		0.76	[0.24; 2.42]	5.8%
44 - Fenesy	111 —		1.28	[0.54; 3.05]	9.9%
47 - Ercan	43 ←		1.61	[0.46; 5.59]	5.0%
48 - INMA	12 ←	* *	1.60	[0.10; 24.70]	1.1%
49 - Masi	18 ←			[0.00; Inf]	0.0%
51 - ERICA	30 ←			[0.00; Inf]	0.0%
52 - DNTC	12 ←			[0.00; Inf]	0.0%
53 - GSMS	11 ←			[0.00; Inf]	0.0%
55 - UPPSALA	11 ←			[0.00; Inf]	0.0%
56 - IMAGE-SPAIN	24 ←		0.36	[0.05; 2.37]	2.2%
60 - BHRC	10 ←			[0.00; Inf]	0.0%
62 - ADSAT	16 ←		3.00	[0.24; 37.67]	1.2%
<b>Pooled Effect Size</b> Heterogeneity: $l^2 = 0\%$ , $r^2 = 0.0115$ , $p = 0.94$	<b>1404</b> 0.5	1 2	1.33	[1.00; 1.76]	100.0%
i = 0.0113, p = 0.94		· –			

Figure S12c. Robustness analysis with dichotomized relative age.

#### Supplementary Text S13. Meta-regressions.

Supplementary analyses can be retrieved at Section S13, https://simba-

adhd.com/HTMLresults.html

Figure S13a. Meta-regression with the statistical significance of the relative age effect at baseline as the moderator.

	Ass	ociation of relative age with	1		
Study	Ν	persistence of ADHD	OR	95%-CI	Weight
p_sig = RAE at baseline: sig					
28 - MCS	436	-	1.02	[0.96; 1.10]	15.3%
31 - E-risk	63		1.25	[1.01; 1.55]	1.6%
43 - PELOTAS	77		1.00	[0.87; 1.14]	3.9%
48 - INMA	22	·	1.08	[0.78; 1.48]	0.7%
54 - DNBC	813		1.02	[0.97; 1.06]	36.7%
61 - CATSS	813	÷	1.01	[0.96; 1.06]	30.2%
Pooled Effect Size	2224	÷	1.02	[0.99; 1.05]	88.3%
Heterogeneity: $I^2 = 0\%$ , $\tau^2 = 0$ , $p = 0.54$					
p_sig = RAE at baseline: ns					
29 - LSAC	242		0.95	[0.88; 1.03]	11.2%
37 - CJCCS	14 ←		1.00	[0.00; Inf]	0.0%
60 - BHRC	16		1.20	[0.83; 1.73]	0.5%
Pooled Effect Size	272		0.99	[0.83; 1.19]	11.7%
Heterogeneity: $I^2 = 0\%$ , $\tau^2 = 0.0085$ , $p = 0.48$					
Pooled Effect Size	2496		1.01	[0.98; 1.04]	100.0%
	0.5	1 2	2		

Figure S13b. Meta-regression with the magnitude of the relative age effect at baseline (OR < 1.05 versus OR  $\ge 1.05$ ) as the moderator

	Ass	sociation of relative age with			
Study	Ν	persistence of ADHD	OR	95%-CI	Weight
or_larg = RAE at baseline: OR<1.05 28 - MCS 29 - LSAC 37 - CJCCS 54 - DNBC 60 - BHRC 61 - CATSS Pooled Effect Size	436 242 14 ← 813 16 813 2334	$ \begin{array}{c} & 1 \\ & 0 \\ & 1 \\ & 1 \\ & 1 \\ & 1 \\ & 1 \\ & 1 \\ & 1 \\ & 1 \\ \end{array} $	.02 .95 .00 .02 .20 .01	[0.96; 1.10] [0.88; 1.03] [0.00; Inf] [0.97; 1.06] [0.83; 1.73] [0.96; 1.06]	15.3% 11.2% 0.0% 36.7% 0.5% 30.2%
Heterogeneity: $l^2 = 0\%$ , $\tau^2 = 0$ , $p = 0.66$ or_larg = RAE at baseline: OR>=1.05 31 - E-risk 43 - PELOTAS 48 - INMA Pooled Effect Size Heterogeneity: $l^2 = 35\%$ , $\tau^2 = 0.0078$ , $p = 0.21$ Pooled Effect Size	63 77 22 162		.25 .00 .08 .09	[1.01; 1.55] [0.87; 1.14] [0.78; 1.48] [0.93; 1.27]	1.6% 3.9% 0.7% 6.1%
Pooled Effect Size	2496	1	.01	[0.98; 1.04]	100.0%
	0.5	1 2			

Figure S13c. Meta-regression with the magnitude of the type of tool used to assess ADHD as the moderator.

Cturk.	Ass	sociation of relative age wit	h OR	05% 01	Mainh4
Study	N	persistence of ADHD	UR	95%-CI	weight
diag.procedure = Diagnosis 23 - ALSPAC 24 - CLASS 25 - MGH-boys 26 - MGH-girls 27 - Li 33 - NYS 34 - Rosenbaum 35 - SAGE 36 - GELLER 38 - LSUY 42 - MILWAUKEE 43 - PELOTAS 44 - Fenesy 47 - Ercan 49 - Masi 50 - CAP 53 - GSMS 57 - VIBeS 58 - MARS 60 - BHRC <b>Pooled Effect Size</b> Heterogeneity: $l^2$ = 41%, $\tau^2$ = 0.0040, $p$ = 0.03	57 96 49 46 38 101 23 40 44 74 101 77 163 65 20 54 11 8 22 16 1115		1.21 0.98 1.13 1.18 0.98 0.85 0.88 0.89 0.97 1.09 1.10 1.00 1.03 1.04 → 1.48 1.18 1.17 0.61 0.91 1.20 1.03	$\begin{matrix} [0.83; 1.76]\\ [0.85; 1.13]\\ [0.94; 1.36]\\ [1.00; 1.40]\\ [0.83; 1.17]\\ [0.74; 0.97]\\ [0.71; 1.08]\\ [0.73; 1.07]\\ [0.81; 1.16]\\ [0.96; 1.23]\\ [0.97; 1.26]\\ [0.87; 1.14]\\ [0.90; 1.20]\\ [1.03; 2.14]\\ [1.00; 1.39]\\ [0.85; 1.61]\\ [0.38; 0.99]\\ [0.70; 1.17]\\ [0.83; 1.73]\\ [0.98; 1.08] \end{matrix}$	0.8% 3.3% 2.4% 2.7% 2.6% 3.4% 2.0% 2.3% 3.7% 3.6% 3.5% 4.6% 3.3% 0.8% 2.8% 1.0% 0.5% 1.5% 0.8% 48.1%
diag.procedure = Broad-based-scale 28 - MCS 28 - MCS 29 - LSAC 29 - LSAC 37 - CJCCS 41 - MPHC 46 - TEMPO 54 - DNBC 61 - CATSS 63 - QNTS Pooled Effect Size Heterogeneity: $l^2 = 0\%$ , $\tau^2 = < 0.0001$ , $p = 0.90$	567 436 242 131 14 ← 22 813 813 15 3067		1.01 1.02 0.95 0.95 1.00 1.00 1.02 1.01 1.16 1.00	[0.95; 1.08] [0.96; 1.10] [0.88; 1.03] [0.84; 1.08] [0.00; Inf] [0.00; Inf] [0.66; 1.20] [0.97; 1.06] [0.96; 1.06] [0.73; 1.87] [0.98; 1.03]	3.3% 3.0% 4.0% 1.7% 0.0% 0.0% 1.2% 6.4% 6.3% 0.5% 26.5%
diag.procedure = Symptoms 30 - IMAGE-UK 31 - E-risk 32 - BCS 39 - ADSU 40 - BGALS 45 - Lindahl 48 - INMA 51 - ERICA 52 - DNTC 55 - UPPSALA 56 - IMAGE-SPAIN 59 - LINEUP 62 - ADSAT <b>Pooled Effect Size</b> Heterogeneity: $I^2 = 59\%$ , $\tau^2 = 0.0118$ , $p < 0.01$	33 63 134 25 67 44 22 41 41 41 18 17 30 10 22 526		1.01 1.25 0.97 1.17 1.05 0.83 1.08 → 1.00 0.90 → 1.41 0.87 0.87 1.21 1.04	[0.74; 1.39] [1.01; 1.55] [0.86; 1.09] [0.94; 1.46] [0.92; 1.20] [0.67; 1.03] [0.78; 1.48] [0.00; Inf] [0.68; 1.19] [0.88; 2.25] [0.70; 1.08] [0.61; 1.24] [1.13; 1.30] [0.95; 1.14]	1.1% 2.0% 3.9% 1.9% 3.4% 1.0% 0.0% 1.3% 0.5% 2.0% 0.9% 5.6% 25.4%
Pooled Effect Size	4708	•	<b>1.02</b>	[0.99; 1.06]	100.0%
	0.5	1	2		

Study Sampling_cat = Population-based/	N	persistence of ADHD	OR	95%-CI	Weight
Very large community ( 23 - ALSPAC 28 - MCS 28 - MCS 29 - LSAC 29 - LSAC 31 - E-risk 32 - BCS 37 - CJCCS 39 - ADSU 43 - PELOTAS 45 - Lindahl 46 - TEMPO 47 - Ercan 48 - INMA 50 - CAP 53 - GSMS 54 - DNBC 60 - BHRC 61 - CATSS 62 - ADSAT 63 - QNTS Pooled Effect Size Heterogeneity: $l^2 = 53\%$ , $\tau^2 = 0.0050$ , $p < 0.01$	N>1000 57 567 436 242 131 63 134 44 25 77 44 22 65 22 54 11 813 16 813 22 15 3643		$\begin{array}{c} 1.21 \\ 1.02 \\ 0.95 \\ 0.95 \\ 1.25 \\ 0.97 \\ 1.00 \\ 1.17 \\ 1.00 \\ 0.83 \\ 0.89 \\ 1.04 \\ 1.08 \\ 1.18 \\ 1.17 \\ 1.02 \\ 1.20 \\ 1.01 \\ 1.21 \\ 1.21 \\ 1.16 \\ 1.04 \end{array}$	$\begin{matrix} [0.83; 1.76] \\ [0.95; 1.08] \\ [0.96; 1.10] \\ [0.88; 1.03] \\ [0.84; 1.08] \\ [1.01; 1.55] \\ [0.86; 1.09] \\ [0.00; Inf] \\ [0.94; 1.46] \\ [0.87; 1.14] \\ [0.67; 1.03] \\ [0.66; 1.20] \\ [0.90; 1.20] \\ [0.90; 1.20] \\ [0.90; 1.20] \\ [0.78; 1.48] \\ [1.00; 1.39] \\ [0.85; 1.61] \\ [0.97; 1.06] \\ [0.83; 1.73] \\ [0.96; 1.06] \\ [1.13; 1.30] \\ [0.73; 1.87] \\ [0.99; 1.10] \end{matrix}$	0.8% 3.3% 3.0% 4.0% 1.7% 2.0% 3.9% 0.0% 1.9% 3.5% 1.9% 1.2% 3.3% 1.0% 2.8% 1.0% 6.4% 0.8% 6.3% 5.6% 0.5% 55.0%
Sampling_cat = Convenient cases 24 - CLASS 25 - MGH-boys 26 - MGH-girls 27 - Li 30 - IMAGE-UK 33 - NYS 34 - Rosenbaum 35 - SAGE 36 - GELLER 38 - LSUY 40 - BGALS 41 - MPHC 42 - MILWAUKEE 44 - Fenesy 49 - Masi 51 - ERICA 52 - DNTC 56 - IMAGE-SPAIN 59 - LINEUP Pooled Effect Size Heterogeneity: $l^2$ = 30%, $\tau^2$ = 0.0041, $p$ = 0.10 Sampling_cat = Community 55 - LIPPSALA	96 49 46 38 33 101 23 40 44 74 67 14 47 101 163 20 41 41 41 41 50 10 1008		0.98 1.13 1.18 0.98 1.01 0.85 0.88 0.97 1.09 1.05 1.00 1.10 1.03 1.48 1.00 0.90 0.87 0.87 1.01	[0.85; 1.13] [0.94; 1.36] [1.00; 1.40] [0.83; 1.17] [0.74; 1.39] [0.74; 0.97] [0.71; 1.08] [0.73; 1.07] [0.81; 1.16] [0.96; 1.23] [0.92; 1.20] [0.92; 1.20] [0.97; 1.26] [0.94; 1.14] [1.03; 2.14] [0.00; Inf] [0.68; 1.19] [0.70; 1.08] [0.61; 1.24] [0.95; 1.06]	3.3% 2.4% 2.6% 1.1% 3.4% 2.0% 2.3% 3.7% 3.4% 0.0% 3.6% 4.6% 0.0% 1.3% 2.0% 0.9% 42.5%
55 - UPPSALA 57 - VIBeS 58 - MARS <b>Pooled Effect Size</b> Heterogeneity: $I^2$ = 66%, $\tau^2$ = 0.0964, $p$ = 0.05	17 18 ← 22 57		1.41 0.61 0.91 0.92	[0.88; 2.25] [0.38; 0.99] [0.70; 1.17] [0.61; 1.41]	0.5% 0.5% 1.5% <b>2.5%</b>
Pooled Effect Size	<b>4708</b> 0.5	5 1 2	1.02	[0.99; 1.06]	100.0%

# Figure S13d. Meta-regression with the type of sampling as the moderator. Association of relative age with

Study	Asso	ciation of relative age with	י ספ	95%_CI	Weight
Study	IN .	persistence of ADHD	UK	55%-01	weight
Cut_off_date = Official					
23 - ALSPAC	57		1.21	[0.83; 1.76]	0.5%
24 - CLASS	96		0.98	[0.85; 1.13]	2.3%
25 - MGH-boys	49		1.13	[0.94; 1.36]	1.7%
26 - MGH-girls	46		1.18	[1.00; 1.40]	1.9%
27 - Li	38		0.98	[0.83; 1.17]	1.8%
28 - MCS	567		1.01	[0.95; 1.08]	2.6%
28 - MCS	436		1.02	[0.96; 1.10]	2.4%
	242		0.95	[0.88; 1.03]	3.1%
	33		1.01	[0.04, 1.00]	0.7%
31 - E-risk	63		1.01	[0.74, 1.59]	1.4%
32 - BCS	134		0.97	[0.86:1.09]	2.9%
33 - NYS	101	<del></del>	0.85	[0.00, 1.00]	2.0%
34 - Rosenbaum	23		0.88	[0.71: 1.08]	1.4%
35 - SAGE	40		0.89	[0.73; 1.07]	1.6%
36 - GELLER	44		0.97	[0.81; 1.16]	1.7%
37 - CJCCS	14 ←		1.00	[0.00; Inf]	0.0%
38 - LSUY	74		1.09	[0.96; 1.23]	2.7%
39 - ADSU	25		1.17	[0.94; 1.46]	1.3%
40 - BGALS	67		1.05	[0.92; 1.20]	2.5%
41 - MLSRA	14 ←		1.00	[0.00; Inf]	0.0%
42 - MILWAUKEE	101		1.10	[0.97; 1.26]	2.6%
43 - PELOTAS	77		1.00	[0.87; 1.14]	2.5%
	163		1.03	[0.94; 1.14]	3.4%
	44		0.83	[0.67; 1.03]	1.3%
40 - TEMPO	22		1.04	[0.00, 1.20]	0.0%
	22		1.04	[0.90, 1.20]	2.4%
40 - Maei	20	_	1.00	[0.70, 1.40]	0.7%
50 - CAP	54		1 18	[1.00; 2.14]	1.9%
51 - ERICA	41 ←	;	1.00	[0.00: Infl	0.0%
52 - DNTC	18		0.90	[0.68; 1.19]	0.9%
53 - GSMS	11	m	1.17	[0.85; 1.61]	0.7%
54 - DNBC	813		1.02	[0.97; 1.06]	5.0%
55 - UPPSALA	17	+	1.41	[0.88; 2.25]	0.3%
56 - IMAGE-SPAIN	30		0.87	[0.70; 1.08]	1.3%
57 - VIBeS	18 ←──		0.61	[0.38; 0.99]	0.3%
58 - MARS	22		0.91	[0.70; 1.17]	1.0%
59 - LINEUP	10		0.87	[0.61; 1.24]	0.6%
60 - BHRC	16		1.20	[0.83; 1.73]	0.5%
61 - CAISS	813		1.01	[0.96; 1.06]	4.9%
	2Z 15		1.21	[1.13; 1.30]	4.2%
Boolod Effect Size	4709		1.10	[0.73, 1.07]	72.3%
Heterogeneity: $l^2 = 45\% r^2 = 0.0045$ p < 0.01	4700		1.02	[0.33, 1.00]	12.3/0
11 = 1000 = 1000 = 1000 = 1000 = 1000 = 1000 = 1000 = 1000 = 1000 = 100000 = 100000 = 100000 = 100000000					
Cut off date = Probable					
64 - NTR	513		0.99	[0.94; 1.05]	4.6%
65 - Generation R	60		1.17	[0.99; 1.38]	2.0%
67 - OTAGO	19 -	*	0.87	[0.60; 1.26]	0.5%
68 - B-CAPU	22		1.04	[0.82; 1.32]	1.1%
69 - CDP	262		0.98	[0.83; 1.17]	1.5%
69 - CDP	157		1.07	[0.88; 1.30]	1.2%
70 - PDS	28		1.05	[0.84; 1.31]	1.3%
/1 - LAMS	133		0.94	[0.85; 1.05]	2.6%
/1 - LAMS	54		1.04	[0.89; 1.22]	1.1%
72 - MCBCH	56		1.01	[0.86; 1.18]	2.0%
	22 -		0.90	[0.47; 2.02]	0.1%
	66		0.06	[0.90, 3.20]	0.2%
76 - SBTS	44		0.80	[0.04, 1.11]	2.3%
77 - NeurolMAGE	108		0.00	[0.03, 1.11]	2.0%
66 - PGS	104 -		0 79	[0.59 1 06]	0.8%
78 - Lambert	123		0.88	[0.79; 0.99]	3.1%
79 - Abd Elmaksoud	15 ←		1.00	[0.00; Infl	0.0%
Pooled Effect Size	1796	•	0.98	[0.95; 1.02]	27.7%
Heterogeneity: $I^2 = 1\%$ , $\tau^2 = < 0.0001$ , $p = 0.45$					
Pooled Effect Size	6504	•	1.01	[0.98; 1.04]	100.0%
	0.5	1 *	2		
	0.0		-		

# Figure S13e. Meta-regression with the school-entry system as the moderator.