SUPPLEMENTAL MATERIAL

Appendix A1. DETAILS ON SEARCH METHODS AND SYSTEMATIC REVIEW PROCEDURES

Search terms for each electronic database

Pubmed
(ADHD OR adhd OR attention deficit disorder with hyperactivity OR syndrome hyperkinetic OR hyperkinetic syndrome OR hyperactivity disorder OR hyperactive child syndrome OR childhood hyperkinetic syndrome OR attention deficit hyperactivity disorders OR attention deficit hyperactivity disorder OR attention deficit hyperactivity disorder OR addh OR overactive child syndrome OR attention deficit hyperkinetic disorder OR hyperkinetic disorder OR attention deficit disorder hyperactivity OR child attention deficit disorder OR hyperkinetic syndromes OR syndromes hyperkinetic OR hyperkinetic syndrome childhood) AND (Obes* OR Overweight OR BMI OR Body Mass Index OR Quetelet's index OR Body size OR Adiposity)

MeSH terms were used where appropriate

Results search 31.08.2014: **768 hits**

Ovid databases (Ovid MEDLINE®, Biological Abstracts®, EMBASE Classic+EMBASE, PsycINFO):
(ADHD OR adhd OR attention deficit disorder with hyperactivity OR syndrome hyperkinetic OR hyperkinetic syndrome OR hyperactivity disorder OR hyperactive child syndrome OR childhood hyperkinetic syndrome OR attention deficit hyperactivity disorder OR addh OR overactive child syndrome OR attention deficit hyperkinetic disorder OR hyperkinetic disorder OR attention deficit disorder hyperactivity OR child attention deficit disorder OR hyperkinetic syndromes OR syndromes hyperkinetic OR hyperkinetic syndrome childhood OR Attention deficit disorder OR ((atteni$) adj3 (deficit$ OR disorder$ or hyperactiv$ OR hyper?activ$ OR adhd OR addh OR ad??hd)) OR ((hyperkin$ OR hyper?kin$) adj3 (deficit$ OR disorder$ OR hkd))) AND (Obesity OR obese OR Overweight OR BMI OR Body Mass Index OR Quetelet index OR Body size OR Adiposity)

Results search 31.08.2014: **1664**

Web of knowledge (BIOSIS Previews, Inspec®, Science Citation Index Expanded (SCI-Expanded), Social Sciences Citation Index (SSCI), Arts & Humanities Citation Index (A&HCI), Conference Proceedings Citation Index - Science (CPCI-S), Conference Proceedings Citation Index - Social Sciences & Humanities (CPCI-SSH), CABI: CAB Abstracts® and Global Health®, Food Science and Technology Abstracts (FSTA)®)
(ADHD OR adhd OR attention deficit disorder with hyperactivity OR syndrome hyperkinetic OR hyperkinetic syndrome OR hyperactivity disorder OR hyperactive child syndrome OR childhood hyperkinetic syndrome OR attention deficit hyperactivity disorder OR adhd attention deficit hyperactivity disorder OR addh OR overactive child syndrome OR attention deficit hyperkinetic disorder OR hyperkinetic disorder OR attention deficit disorder hyperactivity OR child attention deficit disorder OR hyperkinetic syndromes OR syndromes hyperkinetic OR hyperkinetic syndrome childhood) #1 (Obesity OR Obese OR Overweight OR BMI OR Body Mass Index OR Quetelet's index OR Body size OR Adiposity) #2

Results search 31.08.2014: **3345**

ERIC

(ADHD OR adhd OR attention deficit disorder with hyperactivity OR syndrome hyperkinetic OR hyperkinetic syndrome OR hyperactivity disorder OR hyperactive child syndrome OR childhood hyperkinetic syndrome OR attention deficit hyperactivity disorders OR attention deficit hyperactivity disorder OR attention deficit hyperactivity disorder OR addh OR overactive child syndrome OR attention deficit hyperkinetic disorder OR hyperkinetic disorder OR attention deficit disorder hyperactivity OR child attention deficit disorder OR hyperkinetic syndromes OR syndromes hyperkinetic OR hyperkinetic syndrome childhood) AND (Obesity OR Overweight OR BMI OR Body Mass Index OR Quetelet's index OR Body size OR Adiposity)

Results search 31.08.2014: **41**

CINAHL plus

(ADHD OR adhd OR attention deficit disorder with hyperactivity OR syndrome hyperkinetic OR hyperkinetic syndrome OR hyperactivity disorder OR hyperactive child syndrome OR childhood hyperkinetic syndrome OR attention deficit hyperactivity disorders OR attention deficit hyperactivity disorder OR attention deficit hyperactivity disorder OR addh OR overactive child syndrome OR attention deficit hyperkinetic disorder OR hyperkinetic disorder OR attention deficit disorder hyperactivity OR child attention deficit disorder OR hyperkinetic syndromes OR syndromes hyperkinetic OR hyperkinetic syndrome childhood) AND (Obesity OR Overweight OR BMI OR Body Mass Index OR Quetelet's index OR Body size OR Adiposity)

Results search 31.08.2014: **81**

After merging and removing duplicates across databases using Endnote X6 with the function "remove duplicates": **4667 hits**

Other resources searched

We searched relevant studies in the *Journal of the American Academy of Child and Adolescent Psychiatry, Journal of Child Psychology and Psychiatry, European Child and Adolescent Psychiatry, the American Journal of Psychiatry, International Journal of Obesity, Obesity, and Pediatrics*. We also searched the proceedings of conferences such as the annual meeting of *the American Academy of Child and Adolescent Psychiatry* and the *International Congress on Obesity*. We also contacted members of the *European Network for Hyperkinetic Disorders* (Eunethydis) at the 22nd Eunethydis meeting (Budapest, 29/9/2011-2/10/2011) and at the 23rd Eunethydis meeting (Prague, 3/10/2013-6/10/2013) as well as participants to the 2nd International ADHD Conference (Barcelona 23/5/2012-25/5/2012) and to the 3rd International ADHD Conference (Istanbul, 21/5/2014-24/5/2014) and asked them to provide any unpublished data on the prevalence of obesity in individuals with ADHD.

Method of addressing articles published in languages other than English

One or more of the investigators of the present meta-analysis are fluent in English, French, Italian, Portuguese or Spanish. If needed, authors of potentially relevant papers published in languages not spoken by the investigators were asked to provide details of their study in English or in any other language spoken by the investigators.

Selection of studies

We used two stages: 1) Two investigators (SC, and CRMM) independently and blindly screened titles and abstracts of all non-duplicated papers and excluded those clearly not pertinent. A final list was agreed with discrepancies resolved by consensus between the two authors for 42 out of 4667 screened papers; CM-P was arbitrator for 21 additional references. 2) The full-text versions of the articles passing stage 1 were assessed for eligibility by SC and CRMM, independently and blindly. Discrepancies for three papers were resolved by consensus between the two authors; CM-P was arbitrator for an additional study. Data from multiple reports of the same study were linked together.

Data extraction

Two investigators (SC and CRMM) independently and blindly performed extraction of data relevant to the aims of the present meta-analysis; discrepancies, which occurred for about 12% of extracted data, were resolved by consensus between the two authors. Data were extracted and inserted in an Excel sheet. Data extracted included:

1. Publication detail: year and language of publication, country where the study was conducted;
2. Design: type of study (cross-sectional, case-control, cohort, etc.); study temporality (prospective, retrospective); patient enrolment (consecutive, non-consecutive); setting (clinical *vs.* population-based study);
3. Study participants details: number, mean age (SD), gender distribution, SES and ethnicity of participants with and without ADHD; characteristics of participants without ADHD (healthy comparisons, comparisons with psychiatric disorders other than ADHD, other); psychiatric comorbidities of individuals with and without ADHD (type and prevalence); method to establish the diagnosis of ADHD (self-reported diagnosis, diagnosis recorded in medical files/registry, structured or semi-structured interview according to DSM (III, III-R, IV. IV-TR) or ICD (ICD-10 or previous versions) criteria); medication status of individuals with and without ADHD (type of medication and percentage of treated participants, during and prior to the study);
4. Outcome measure: method used to define obesity/overweight (self-reported diagnosis, diagnosis in medical file/registry, cut-off in BMI calculated from self-reported or measured height and weight); prevalence (unadjusted and, if reported, adjusted) of obesity and, if reported, of overweight in individuals with and without ADHD;
5. Covariates included in the adjusted (by the study authors) odds ratios effect sizes of obesity prevalence, such as SES and psychiatric comorbidities.

When not reported, we contacted study authors to gather data for the analyses, including ORs in medicated and medication-naïve ADHD participants.

Assessment of study quality and bias

SC and CRMM independently and blindly performed the assessment of study quality and bias, including confounding, Study quality was rated using the Newcastle-Ottawa Scale, as recommended by the Cochrane collaboration. For items included in this scale, see section A2, Supplement. Discrepancies in the ratings (18% of the total items) were resolved by consensus.

Appendix A2. ITEMS OF THE NEWCASTLE-OTTAWA QUALITY ASSESSMENT SCALE

CASE CONTROL STUDIES

Selection

1) Is the case definition adequate?
   a) yes, with independent validation
   b) yes, e.g., record linkage or based on self reports
   c) no description
2) Representativeness of the cases
   a) consecutive or obviously representative series of cases
   b) potential for selection biases or not stated
3) Selection of Controls
   a) community controls
   b) hospital controls
   c) no description
4) Definition of Controls
   a) no history of disease (endpoint)
   b) no description of source

Comparability

1) Comparability of cases and controls on the basis of the design or analysis
   a) study controls for _______________ (Select the most important factor.)
   b) study controls for any additional factor (This criteria could be modified to indicate specific control for a second important factor.)

Exposure

1) Ascertainment of exposure
   a) secure record (e.g., surgical records)
   b) structured interview where blind to case/control status
   c) interview not blinded to case/control status
   d) written self report or medical record only
   e) no description
2) Same method of ascertainment for cases and controls
   a) yes
   b) no
3) Non-Response rate
   a) same rate for both groups
   b) non respondents described
   c) rate different and no designation

COHORT STUDIES

Selection

1) Representativeness of the exposed cohort
   a) truly representative of the average ________________ (describe) in the community
   b) somewhat representative of the average _______________ in the community
   c) selected group of users e.g., nurses, volunteers
   d) no description of the derivation of the cohort

2) Selection of the non exposed cohort
   a) drawn from the same community as the exposed cohort
   b) drawn from a different source
   c) no description of the derivation of the non exposed cohort

3) Ascertainment of exposure
   a) secure record (e.g., surgical records)
   b) structured interview
   c) written self report
   d) no description

4) Demonstration that outcome of interest was not present at start of study
   a) yes
   b) no

Comparability

1) Comparability of cohorts on the basis of the design or analysis
   a) study controls for ______________ (select the most important factor)
   b) study controls for any additional factor (This criteria could be modified to indicate specific control for a second important factor.)

Outcome

1) Assessment of outcome
   a) independent blind assessment
   b) record linkage
   c) self-report
   d) no description

2) Was follow-up long enough for outcomes to occur
   a) yes (select an adequate follow up period for outcome of interest)
   b) no

3) Adequacy of follow up of cohorts
   a) complete follow up - all subjects accounted for
   b) subjects lost to follow up unlikely to introduce bias - small number lost - > ____ % (select an adequate %) follow up, or description provided of those lost)
   c) follow up rate < ____% (select an adequate %) and no description of those lost
   d) no statement

Appendix A3. DETAILS ON ANALYSES

Sub-group meta-analyses

The subgroup meta-analysis comprising the 30 studies in children/adolescents found a statistically significant pooled OR for obesity in children with ADHD compared with controls (OR=1.20, 95% CI=1.05-1.37; z=2.63, p=0.009) (Figure S1). Heterogeneity was significant (chi-squared=164.26, I^2= 82.3%, df=29, p<0.0005). Egger's test for publication bias was not significant (t=0.95, df=29, p=0.349). Excluding the outlier study by Gungor et al. (2013), results remained significant: OR=1.18, 95% CI=1.034-1.348; z=2.46, p=0.014). Heterogeneity was significant (chi-squared=154.01, I^2=81.8%, df=28, p<0.0005). Egger's test for publication bias was not significant (t=1.37, df=28, p=0.181).

The subgroup meta-analysis comprising the 11 studies in adults found a statistically significant pooled OR for obesity in individuals with ADHD compared with controls (OR=1.55, 95% CI= 1.32-1.81; z=5.45, p<0.0005) (Figure S2). The degree of heterogeneity was small and not significant (chi-squared=13.90, I^2=28.1%, df=10, p=0.178). Egger's test for publication bias was not significant (t=1.79 df=10, p=0.106).

The sub-group meta-analysis comprising the 25 studies based on a formal diagnosis of ADHD via psychiatric interview found a statistically significant pooled OR for obesity in individuals with ADHD compared with controls (OR=1.36, 95% CI=1.12-1.66; z=3.07, p=0.002) (Figure S3). Heterogeneity was significant (chi-squared=81.68, I^2= 70.6%, df=24, p<0.0005). Egger's test for publication bias was not significant (t=0.44, df=24, p=0.66).

The sub-group meta-analysis including only the 24 studies where height and weight were directly measured found a statistically significant pooled OR for obesity in individuals with ADHD compared with controls (OR=1.32, 95% CI=1.06-1.66; z=2.43, p=0.015) (Figure S4). The degree of heterogeneity was significant (chi-squared=110.81, I^2=79.2%, df=23, p<0.0005). The Egger's test for publication bias was significant (t=2.44, df=23, p=0.023). After removing the outlier study by Gungor et al. (2013), the results did not change substantially (OR=1.3, 95% CI=1.02-1.6; z= 2.2, p=0.003). The degree of heterogeneity was significant (chi-squared=100.0, I^2=78%, df=22, p<0.0001). The Egger's test for publication bias was significant (t=2.4, df=22, p=0.046).

The sub-group meta-analysis comprising the 26 population-based studies found a statistically significant pooled OR for obesity in individuals with ADHD compared with controls (OR=1.24, 95% CI=1.10-1.39; z=3.46, p=0.001) (Figure S5). Heterogeneity was significant (chi-squared=146.77, I^2=83.0%, df=25, p<0.0001). Egger's test for publication bias was not significant (t=1.01, df=25, p=0.320).

The sub-group meta-analysis including only the 15 clinical studies found a statistically significant pooled OR for obesity in individuals with ADHD compared with controls (OR=1.61, 95% CI= 1.10-2.35; z=2.43, p=0.015) (Figure S6). The degree of heterogeneity was significant (chi-squared=43.83, I^2=68.1%, df=14, p<0.0005). The Egger's test for publication bias was not significant (t=0.86, df=14, p=0.407). After removing the outlier study by Gungor et al. (2013), the results did not change substantially (OR=1.472, 95% CI=1.035-2.094; z=2.15, p=0.031). The degree of heterogeneity was significant (chi-squared=35.22, I^2=63.1%, df=13, p=0.001). The Egger's test for publication bias was not significant (t=0.15, df=13, p=0.883).

The sub-group meta-analysis focusing on studies with a formal diagnosis of ADHD and directly measured height and weight included 16 studies. We included in this analysis also the study by

Eschenbeck et al. (2009) that was based on obesity diagnosis as per ICD-10 as reported in medical files since the authors confirmed that height and weight were directly measured, rather than reported by patients. We also contacted the corresponding author of another study [Chen et al. (2013)] that was also based on a diagnosis of obesity reported in medical files, as per ICD-9 CM, and asked him if height and weight had been directly measured rather than reported. Although it is likely that, as in the study by Eschenbeck et al. (2009), height and weight were directly measured, since this contact was not successful, we decided to run a preliminary analysis without the study by Chen et al. The pooled OR was 1.42 (95% CI=1.06-1.91, z=2.32, p=0.020). Heterogeneity was significant (chi-squared=40.12, I^2=62.6%, df=15, p<0.0005) and test of publication bias was not significant (t=0.29, df=15, p=0.774) However, including the study by Chen et al., results did not change significantly: OR=1.47, 95% CI=1.12-1.93; z=2.74, p=0.006; heterogeneity: chi-sqaured=42.26, I^2=62.1%, df=16, p< 0.0005); test of publication bias: t=0.44, df=16, p=0.667 (Figure S7). Excluding both the study by Chen et al. (2013) and the outlier study by Gungor et al. (2013), findings remained significant: OR=1.34, 95% CI=1.021-1.760; z=2.11, p=0.035; heterogeneity: chi-squared=31.17, I^2=55.1%, df=14, p=0.005; test of publication bias: t=-0.23, df=14, p=0.823.

The meta-analysis of the 22 studies of overweight found a statistically significant pooled OR for overweight in individuals with ADHD compared with controls (OR=1.17, 95% CI=1.01-1.36; z=2.04, p=0.042) (Figure S8), with a high and significant degree of heterogeneity (chi-squared=94.69, I^2=77.8%, df=21, p<0.0005) and a non significant Egger's test for publication bias (t=2.44, df=21, p=0.024). Results did not change substantially after removing the study by Gungor et al. (2013) identified as an outlier (OR=1.2, 95% CI=1.01-1.4; z=2.3, p=0.02).

The sub-group meta-analysis focusing on unmedicated subjects from 12 studies found a statistically significant pooled OR for obesity in individuals with ADHD compared with controls (OR=1.43, 95% CI=1.23-1.67; z=4.59, p< 0.005) (Figure 4a). The degree of heterogeneity was significant (chi-squared=21.15, I^2=48.0%, df=11, p=0.032). The Egger's test for publication bias was not significant (t= -0.29, df=11, p=0.781).

The sub-group meta-analysis focusing on medicated subjects from 12 studies did not find a statistically significant pooled OR for obesity in individuals with ADHD compared with controls (OR=1.00, 95% CI=0.87-1.15; z=0.05, p=0.964) (Figure 4b). The degree of heterogeneity was significant (chi-squared=22.89, I^2=51.9%, df=11, p=0.018). The Egger's test for publication bias was not significant (t=-1.73, df=11, p=0.115).

Meta-regression analysis

We used meta-analysis regression to test for effects of potentially confounding covariates. None of the covariates included in the model significantly predicted the study effect sizes, as summarized in the following:

Year of study publication: t(39df)=0.4; p=0.7
Number of participants with ADHD: t(39df)=0.8; p=0.4
Number of participants without ADHD: t(39df)=0.8; p=0.4
Age of participants: t(39df)=1.7; p=0.1
Gender: t(39df)=0.3; p=0.8
Study setting (clinical or population-based): t(39df)=1.1; p=0.3
Newcastle-Ottawa Scale score: t(39df)=0.7; p=0.5

We performed an additional meta-regression analysis to test the effect of study country. As showed in Supplemental Table S1, there were 17 different countries. After excluding the outlier paper by Gungor et al. (2013), there was only a trend, not statistically significant, for the effect of study country. ($F(15,24)=2.10$, $Prob>F=0.0506$).

The ORs for each country were as follows:

Study #	ES	[95% Conf. Interval]	
Iran			
1	1.440	0.470	4.380
34	0.640	0.100	4.140
Sub-total			
D+L pooled ES	1.162	0.446	3.027
USA			
2	2.710	1.210	6.060
3	3.800	1.640	8.810
5	0.930	0.710	1.220
8	1.440	1.060	1.950
9	1.490	0.560	4.020
15	1.360	1.190	1.560
20	1.400	1.020	1.910
22	1.190	1.120	1.270
24	1.450	1.190	1.770
26	1.490	1.120	1.990
28	1.400	1.170	1.700
33	2.650	1.090	6.450
35	1.160	1.020	1.310
38	1.100	0.650	1.870
Sub-total			
D+L pooled ES	1.322	1.201	1.455
Qatar			
4	0.580	0.420	0.800
Sub-total			
D+L pooled ES	0.580	0.420	0.800
France			
6	0.550	0.070	4.120
14	1.980	0.680	5.780
Sub-total			
D+L pooled ES	1.416	0.470	4.269
Taiwan			
7	2.060	1.260	3.350
Sub-total			
D+L pooled ES	2.060	1.260	3.350
Germany			
10	2.370	1.310	4.290

12	1.370	0.680	2.770
13	1.430	1.290	1.580
18	0.510	0.160	1.620
19	2.420	0.240	24.480
27	1.250	0.530	2.940
37	1.560	0.660	3.680
Sub-total			
D+L pooled ES	1.445	1.265	1.650
Israel			
11	0.400	0.160	0.970
Sub-total			
D+L pooled ES	0.400	0.162	0.985
Turkey			
16	30.100	4.060	223.010
Sub-total			
D+L pooled ES	30.100	4.061	223.083
Poland			
17	0.900	0.430	1.890
Sub-total			
D+L pooled ES	0.900	0.429	1.887
Finland			
21	1.110	0.710	1.730
Sub-total			
D+L pooled ES	1.110	0.711	1.733
UK			
23	4.800	2.210	10.430
36	1.070	0.830	1.370
Sub-total			
D+L pooled ES	2.163	0.498	9.388
Brazil			
25	5.880	0.620	55.380
Sub-total			
D+L pooled ES	5.880	0.622	55.572
Australia			
29	3.880	1.100	13.670
40	0.890	0.180	4.410
Sub-total			
D+L pooled ES	2.025	0.483	8.487
Spain			
30	0.810	0.730	0.880
Sub-total			
D+L pooled ES	0.810	0.738	0.889

Netherlands				
31	|	1.100	0.420	2.820
39	|	0.630	0.350	1.130
Sub-total				
D+L pooled ES	|	0.734	0.446	1.209
Canada				
32	|	1.000	0.800	1.300
Sub-total				
D+L pooled ES	|	1.000	0.784	1.275
China				
41	|	2.860	1.700	4.800
Sub-total				
D+L pooled ES	|	2.860	1.702	4.806

We found a statistically significant pooled OR for overweight in individuals with ADHD compared with controls (OR=1.3, 95% CI: 1.1-1.5; z=2.9, p=0.004), with a high and significant degree of heterogeneity (chi-squared=186.6, I^2=88.2%, df=22, p<0.0005) and a non significant Egger's test for publication bias (t=1.2, df=22, p=0.25) (Supplemental Figure 3). Results did not change substantially after removing the study by Gungor et al. (2013) identified as an outlier (OR=1.2, 95% CI: 1.0-1.4; z=2.3, p=0.02).

Appendix A4. ANALYSES FROM STUDIES PRESENTING SEPARATE DATA FOR PRIMARY SCHOOL CHILDREN AND ADOLESCENTS.

There studies presented data separately in primary school children and adolescents.
The first of these studies (Curtin et al., 2008) found a non-significant association in primary school children (6-11 year-old, OR= 0.98; 95% CI= 0.47-2.01) as well as in adolescents (12-19 year-old, OR= 1.24, 95% CI= 0.46-3.30); the second study (Eschenbeck et al., 2009) reported an association shy of statistical significance in children aged 6-8 (OR= 1.24; 95% CI= 0.97-1.58) and a significant association in children aged 9-11 (OR= 1.41; 95% CI= 1.20-1.65) as well as in adolescents (OR= 1.65; 95% CI= 1.40-1.93); the third study (Fliers et al., 2013) did not found any significant association in any of the age groups assessed (5-9 year-old, boys: OR= 0.46; 95% CI= 0.13-1.63, girls: OR= 0.12; 95% CI= 0.02-0.99; 10-12 year-old, boys: OR= 1.39; 95% CI= 0.50-3.88, girls: OR= 4.61; 95% CI= 0.58-36.55; 13-17 year-old, boys: OR= 0.38; 95% CI= 0.11-1.27, girls: OR= 0.13; 95% CI= 0.01-1.40).

Table S1. Variables Controlled For in Studies Reporting Adjusted Odds Ratios[a]

[a] Measures for socioeconomic status (SES) are indicated when reported in the paper.

First author (year)	Variables controlled for
Byrd (2013)	Age Race/Ethnicity Low birth weight SES (poverty income ratio) MDD CD
Chen (2013)	Age Gender Index year Geographic region
Cortese (2013a)	MDD AD SUD Ethnicity Individual income
Cortese (2013b)	SES (Hollingshead and Redlich index) MDD AD SUD
de Zwaan (2011)	Model I: Age Gender Educational level Employment status Marital status Rural/Urban residency Model II: Binge eating episodes Model III: Purging behaviors Model IV: MDD AD *Note: we used data from model I for consistency with most of other studies that presented adjusted models*
Erhart (2012)	Age Gender *Note: these factors were controlled for in analyses focusing on overweight (including obesity)*

Fuemmeler (2011)	Age Gender Race/ethnicity Physical activity Education achieved MDD Alcohol consumption Smoking
Hanc (2014)	Birth weight Parent's education Place of residence Income level
Kim (2014)	Age Gender Paternal education Note: this study provided data only for the analysis focusing on obesity, rather than overweight
Kim (2011)	Age SES (family income) Ethnicity Family structure Maternal education Household smoking
Koshy (2011)	Maternal smoking during pregnancy Asthma Childhood obesity, overweight Preterm birth Heavy maternal smoking Household member smoking during pregnancy Low birth weight
Lingineni (2012)	MDD AD Gender Race/Ethnicity Educational level Family structure Healthcare coverage Poverty level Participation in sport and clubs Daily average TV watching and playing videogames Family member’s smoking status
Pagoto (2009)	Model I: Demographics Smoking status Model II: MDD

	Demographics Smoking status Model III: BED Demographics Smoking status Note: the first model was used in the meta-analysis for consistency with most of the other studies that presented adjusted ORs
Pauli-Pott (2013)	Age Gender
Phllips (2014)	Age Gender Race/Ethnicity Mother's Education Poverty-to-Income Ratio Birthweight
Smith (unpublished 2008)	Age Gender SES ADHD Medications Other Medication Emotional Disorder/Anxiety CD/Physical Aggression
Waring (2008)	Age Gender Race/Ethnicity SES Depression or Anxiety
White (2012)	Gender Height Father's social class and maternal education Cognitive ability Birth weight BMI of both parents

Footnote: Full study references are reported in the Reference section in the main text.

AD: Anxiety Disorder; ADHD: Attention Deficit Hyperactivity Disorder; BMI: Body Mass Index; BED: Binge Eating Disorder; CD: Conduct Disorder; MDD: Major Depressive Disorder; ORs: Odds Ratios; SES: Socioeconomic Status; SUD: Substance Abuse Disorder.

Table S2. Study Characteristics

[a] Full study reference is reported in the References Section in the main text.
[b] Newcastle Ottawa Scale (NOS) ratings.
[c] Individuals with ADHD were recruited in clinical setting; control sample was population-based.
[d] Data provided by corresponding author of the study.
Abbreviations (in alphabetical order): ADHD: attention deficit hyperactivity disorder; ADHD-RS: ADHD Rating Scale; BMI: body mass index; DSM: Diagnostic and Statistical Manual of Mental Disorders (number refers to the edition); ICD-9 CM: International Classification of Diseases, Ninth Revision, Clinical Modification; ICD-10: International Classification of Diseases, Tenth Revision; MPH: methylphenidate; NA: not applicable; NS: not specified; SDQ: Strengths and Difficulties Questionnaire; WHO: World Health Organization; WURS-k: Wender Utah Rating Scale, German short version.

First author [a]	**Country**	**Setting**	**ADHD**		**Males %**	**Diagnosis ADHD**	**Medic. status**	**Controls**		**Males %**	**Definition and measure obesity**	**Definition and measure of over-weight**	**NOS [b]**
			N	***Age (mean, SD or range)***				***N***	***Age (mean, SD or range)***				
Azadbakht (39)	Iran	Population-based	36	7 (2)	71	Interview, DSM-IV criteria	NS	339	10 (1)	41	Cole et al. method, measured	NA	5
Barkley (36)	USA	Clinical [c]	52	26.8 (2.8)	84	Interview, Equivalent to DSM-III-R	NS	70	27 (0.9)	93	BMI ≥ 30, measured	NA	5
Beezhold (40)	USA	Population-based	76 [c]	> 18 years	NS	Above threshold Adult Self-Report Scale–v. I.I	NS	391	> 18 years	NS	BMI ≥ 30, self-reported	NA	2

Table S2. Study Characteristics (continued)

Bener (20)	Qatar	Population-based	1331	10.63 (3.4)	72.4	Interview, DSM-IV criteria	NS	1331	10.77 (3.4)	57.6	BMI ≥ 95th centile, NS	BMI ≥ 85th and < 95th centile, NS	4
Byrd (41)	USA	Population-based	412	8-15 years	66.7	Self-report	44.9% currently medicated for ADHD	2638	8-15 years	46.5	BMI ≥ 95th centile, measured	NA	8
Caci (11)	France	Population-based	30	43.7 (8.1)	50	Above threshold Adult Self-Report Scale–v. I.I	NS	1107	41.82 (5.89)	43.81	BMI ≥ 30, self-reported	BMI ≥ 25 and < 30, self-reported	5
Chen (42)	Taiwan	Clinical [c]	4302	5-15 years	80	Reported in medical records, according to ICD-9 CM	NS	21510	5-15 years	80	Reported in medical records, ICD-9 CM	NA	4
Cortese (16)	USA	Population-based	340	> 18 years	53.06	Interview, DSM-IV criteria	NS	34037	> 18 years	47.73	BMI ≥ 30, self-reported	NA	7
Cortese (12)	USA	Clinical	24	41.3 (2.8)	100	Interview, DSM-IV criteria	5% currently medicated for ADHD	111	41.6 (3.2)	100	BMI ≥ 30, self-reported	BMI ≥ 25 and < 30, self-reported	5

Table S2. Study Characteristics (continued)

Curtin (43)	USA	Clinical [c]	98	3-18 years	81	Interview, DSM-IV criteria	33 treated with stimu-lants	8276	2-19 years	44.6	BMI ≥ 95th centile, measured	BMI ≥ 85th centile, measured	5
de Zwann (7)	Germany	Population-based	77	18-64 years	45.5	Above threshold at WURS-k and ADHD-RS	NS	1556	18-64 years	46.4	BMI ≥ 30, self-reported	BMI ≥ 25 and < 30, self-reported	5
Dubnov-Raz (13)	Israel	Clinical	275	10.4 (2.4)	73	Interview, DSM-IV-TR criteria	49 % treated with MPH	51	8.8 (2.3)	73	BMI ≥ 95th centile, measured	BMI ≥ 85th centile, measured	3
Erhart (21)	Germany	Population-based	101	11.98 (3.19)	72.3	Above threshold at the German ADHD-RS	37.6% treated with MPH	2313	12.68 (3.21)	49.8	BMI ≥ 97th centile, measured	BMI ≥ 90th centile, measured	6
Eschen-beck (44)	Germany	Population-based	8214	6-14 years		ICD-10 diagnosis from insurance files		148734	6-14 years		ICD-10 diagnosis from insurance files	ICD-10 diagnosis from insurance files	3
Faraone (22)	France	Population-based	36	9.63 (1.74)	69.4	Interview, DSM-IV criteria	Not treated with ADHD drugs	976	9.35 (1.80)	51.1	BMI ≥ 95th centile, self-reported	BMI ≥ 85th centile, self-reported	4

Table S2. Study Characteristics (continued)

Fliers (45)	The Nether-lands	Clinical [c]	372	5-17 years	82.2	Interview, DSM-IV criteria	74% treated with MPH	90071	4-16 years	NS	Cole method, measured	Cole method, measured	6
Fuemmelar (46)	USA	Population-based	901	NS (young adults)	NS	Above threshold of ADHD symptoms	NS (young adults)	10753	NS (young adults)	NS	BMI ≥ 30, measured	BMI ≥ 25, measured	7
Gungor (8)	Turkey	Clinical	362	9.1 (2.51)	85.6	Interview, DSM-IV criteria	16% treated with MPH	390	9.3 (3.25)	80.7	BMI ≥ 95th centile, measured	BMI ≥ 85th centile, measured	4
Hanc (47)	Poland	Clinical	219	11.2 (2.7)	100	Interview, DSM-IV criteria	36.1 % treated with MPH	396	10.8 (2.8)	100	BMI ≥ 98th centile, measured	BMI ≥ 90th centile, measured	7
Hartmann (48)	Germany	Population-based	33	12.21 (1.6)	66.66%	Above threshold of ADHD symptoms	NS	33	12.11 (1.52)	45.5	BMI ≥ 95th centile, measured	BMI ≥ 85th centile, measured	3
Hubel (49)	Germany	Population-based	39	11.3 (2.2)	100	Interview, DSM-IV criteria	ADHD medicati on-naïve	30	11.6 (1.66)	100	Cole method, measured	Cole method, measured	4
Kessler (37)	USA	Population-based	186	32.2 (8.8)	45.7	Interview, DSM-IV criteria	NS	8920	44.9 (17.5)	44.6	BMI ≥ 30, self-reported	BMI ≥ 25, self-reported	4

Table S2. Study Characteristics (continued)

Khalife (50)	Finland	Population-based	756	7-8 years	NS	Above threshold Rutter B2 scale	NS	111062	7-8 years	NS	Cole method, self-reported	Cole method, self-reported	4
Kim (52)	USA	Population-based	6070	6-17 years	71.7	Self-reported	58.9% treated with stimu-lants	60573	6-17 years	49.1	BMI > 95th centile, self-reported	NA	6
Kim (51)	Korea	Population-based	932	5-13 years	NS	Above threshold DuPaul ADHD Rating Scale	NS	11418	5-13 years	NS	NA	BMI > 85th centile, self-reported	4
Koshy (53)	UK	Population-based	32	5-11 years	NS	Self-reported	NS	913	5-11 years	NS	BMI > 1.64 SDS, measured		5
Linginneni (54)	USA	Population-based	5529	11.98 (5.69)	71	Self-reported	68.8 % treated with stimu-lants	38510	10.46 (6.59)	49.7	BMI > 95th centile, self-reported	BMI > 85th centile, self-reported	6
Menegassi (55)	Brazil	Clinical	22	8.95 (2.6)	72.7	Interview, DSM-IV criteria	ADHD medicati-on-naïve	21	8.9 (2.66)	71.4	BMI > 2 SDS, measured	BMI > 1 SDS, measured	3
Pagoto (17)	USA	Population-based	242	≥ 18 years	NS	Interview, DSM-IV criteria	NS	6495	≥ 18 years	NS	BMI ≥ 30, self-reported	BMI ≥ 25, self-reported	7

Table S2. Study Characteristics (continued)

Pauli-Pott (56)	Germany	Clinical	207	6-12 years	84	Diagnosis in medical records according to ICD-10	ADHD med.-naïve	153	6-12 years	63.3	BMI > 97th centile, measured	NA	5
Phillips (57)	USA	Population-based	845	12-17 years	71.4	Self-reported	ADHD medica-tion-naïve	8141	12-17 years	47	BMI > 95th centile, self-reported	BMI > 85th centile, self-reported	6
Poulton (58)	Australia	Clinical	34	7.27 (1.30)	85.2	Interview, DSM-IV criteria	ADHD med.-naïve	241	8.54 (1.93)	43.56	BMI > 95th centile, self-reported	NA	4
Poulton (59)	Australia	Clinical[c]	65 [d]	9.2 (2)	77.8	Interview, DSM-IV criteria	ADHD medi-cation-naïve	174 [4]	6-13 years	NS	BMI > 98th centile, measured	NA	4
Rojo (18)	Spain	Population-based	7571	13-15 years	55.4	Above threshold SDQ	NS	27832	13-15 years	49.6	BMI > 97th centile, measured	BMI > 90th centile, measured	3
Semeijn (60)	The Nether-lands	Clinical	23	68 (4.9)	47.8	Interview, DSM-IV criteria	NS	208	72 (7.8)	39.9	BMI ≥ 30, measured	BMI ≥ 25, measured	6

Table S2. Study Characteristics (continued)

Smith (38)	Canada	Population-based	540	8.3 (2.2)	70	Self-reported + above threshold ADHD symptoms	22.2 % treated with ADHD medi-cations	9659	8.2 (2.23)	49.3	BMI > 97th centile, self-reported	NA	6
Spencer (9)	USA	Clinical	95	32 (12)	43	Interview, DSM-IV criteria	40 % stimu-lants	99	30 (10)	47	BMI ≥ 30, measured	NA	6
Tashakori (61)	Iran	Population-based	32	5-6 years	100	Above threshold ADHD symptoms	NS	32	5-6 years	NS	BMI > 95th centile, measured	BMI > 85th centile, measured	3
Waring (10)	USA	Population-based	5680	5-17 years	73.3	Self-reported	57.2 % ADHD drugs	57204	5-17 years	49	BMI > 95th centile, self-reported	BMI > 85th centile, self-reported	6
White (62)	UK	Population-based	1766	age 10	NS	Above threshold ADHD symptoms (Connor scale)	NS	9623	age 10	NS	BMI > 95th centile, measured	NA	6

Table S2. Study Characteristics (continued)

Wilhelm (63)	Germany	Clinical	46	7-15 years	NS	Interview, DSM-IV criteria	NS	48	7-15 years	NS	BMI > 95th centile, measured	NA	4
Yang (64)	China	Clinical[c]	158	9.2 (2)	77.8	Interview, DSM-IV criteria	ADHD med.-naïve	3536	6-13 years	NS	WHO criteria, measured	WHO criteria, measured	4

Table S3. Studies Excluded From the Meta-Analysis, With Reasons
[a] Differently from Curtin et al. (2005), Fliers et al. (2013), Poulton et al. (2013), and Yang et al. (2013), outdated normative group was considered not appropriate as comparison group given the increase of obesity prevalence in past decades.

Reference	Reason(s) for exclusion
Agranat-Meged A, Ghanadri Y, Eisenberg I, Ben Neriah Z, Kieselstein-Gross E, Mitrani-Rosenbaum S. Attention deficit hyperactivity disorder in obese melanocortin-4-receptor (MC4R) deficient subjects: A newly described expression of MC4R deficiency. Am J Med Genet B Neuropsychiatr Genet. 2008;147(8):1547-1553.	Genetic study in a family; no appropriate data for the meta-analysis
Aguirre RL, Katusic SK, Voigt RG, et al. Attention-deficit/hyperactivity disorder treatment and weight outcome: A population-based birth cohort study. Endocr Rev. 2011;32 (3 Meeting abstract)	No control group as per protocol
Al-Menabbawy K, El-Gerzawy A, Ezzat A, Mottawie H. Developmental, behavioral and genetic factors in correlation with attention deficit hyperactivity disorder in Egyptian children. J Med Sci. 2006;6(4):569-576.	Contact with authors not successful
Albayrak O, Puetter C, Volckmar A-L, et al. Common obesity risk alleles in childhood attention-deficit/hyperactivity disorder. Am J Med Genet B Neuropsychiatr Genet. 2013;162B(4):295-305.	Contact with authors to gather data on obesity prevalence not successful
Allen AJ, Kurlan RM, Gilbert DL, et al. Atomoxetine treatment in children and adolescents with ADHD and comorbid tic disorders. Neurology. 2005;65(12):1941-1949.	No control group as per protocol
Almog M, Gabis LV, Shefer S, Bujanover Y. Gastrointestinal symptoms in pediatric patients with attention deficit and hyperactivity disorders. Harefuah. 2010;149(1):33-36, 62.	Not possible to contact the authors to request data
Aman MG, Binder C, Turgay A. Risperidone effects in the presence/absence of psychostimulant medicine in children with ADHD, other disruptive behavior disorders, and subaverage IQ. J Child Adolesc Psychopharmacol. 2004;14(2):243-254.	No control group as per protocol
Anderson SE, Cohen P, Naumova EN, Must A. Relationship of childhood behavior disorders to	Contact with authors to gather data on obesity prevalence not

weight gain from childhood into adulthood. Ambul Pediatr. 2006;6(5):297-301.	successful
Antalis CJ, Stevens LJ, Campbell M, Pazdro R, Ericson K, Burgess JR. Omega-3 fatty acid status in attention-deficit/hyperactivity disorder. Prostaglandins Leukot Essent Fatty Acids. 2006;75(4-5):299-308.	Contact with authors to gather data on obesity prevalence not successful
Arnold VK, Feifel D, Earl CQ, Yang R, Adler LA. A 9-Week, Randomized, Double-Blind, Placebo-Controlled, Parallel-Group, Dose-Finding Study to Evaluate the Efficacy and Safety of Modafinil as Treatment for Adults With ADHD. J Atten Disord. 2014 2014;18(2):133-144.	No control group as per protocol
Balia C, Anedda A, Granitzio F, Carucci S, Zuddas A. Long term therapy with methylphenidate induces modest effects on growth in ADHD children. Eur Neuropsychopharmacol. 2013;23:S80.	No control group as per protocol
Barak A, McCrory MA, Lovejoy JC, Weber W. Eating patterns and risk for overweight in children with Attention Deficit Hyperactive Disorder (ADHD). FASEB J; 2008;22	No control group as per protocol
Barkley RA, McMurray MB, Edelbrock CS, Robbins K. Side-effects of methylphenidate in children with attention-deficit hyperactivity disorder – a systemic, placebo-controlled evaluation. Pediatrics. 1990;86(2):184-192.	No control group as per protocol
Beezhold B, Johnston CS. Sodium benzoate intake in beverages may contribute to ADHD symptoms in college students. FASEB J. 2012;26.	Same sample as Beezhold BL, Johnston CS, Nochta KA. Sodium Benzoate-Rich Beverage Consumption is Associated With Increased Reporting of ADHD Symptoms in College Students: A Pilot Investigation. J Atten Disord. 2014 2014;18(3):236-241.
Bereket A, Turan S, Karaman MG, Haklar G, Ozbay F, Yazgan MY. Height, weight, IGF-I, IGFBP-3 and thyroid functions in prepubertal children with attention deficit hyperactivity disorder: effect of methylphenidate treatment. Horm Res. 2005;63(4):159-164.	No control group as per protocol
Bhagat A, Deshmukh V, Shah M, Karira A. Appetite and weight loss in children with attention deficit hyperactivity disorder taking	No control group; no anthropometric measures

atomoxetine. Indian J Psychiatry. 2011;(1):S69-S70.	
Biederman J, Swanson JM, Wigal SB, Boellner SW, Earl CQ, Lopez FA. A comparison of once-daily and divided doses of modafinil in children with attention-deficit/hyperactivity disorder: a randomized, double-blind, and placebo-controlled study. J Clin Psychiatry. 2006;67(5):727-735	No control group as per protocol
Biederman J, Swanson JM, Wigal SB, et al. Efficacy and safety of modafinil film-coated tablets in children and adolescents with attention-deficit/hyperactivity disorder: results of a randomized, double-blind, placebo-controlled, flexible-dose study. Pediatrics. 2005;116(6):e777-784.	No control group as per protocol
Biederman J, Faraone SV, Monuteaux MC, Plunkett EA, Gifford J, Spencer T. Growth deficits and attention-deficit/hyperactivity disorder revisited: impact of gender, development, and treatment. Pediatrics. 2003;111(5 Pt 1):1010-1016.	Authors contacted; not able to provide requested data
Biederman J, Spencer TJ, Monuteaux MC, Faraone SV. A naturalistic 10-year prospective study of height and weight in children with attention-deficit hyperactivity disorder grown up: sex and treatment effects. J Pediatr. 2010;157(4):635-640, 640 e631.	Authors contacted; not able to provide requested data
Bilici M, Yildirim F, Kandil S, et al. Double-blind, placebo-controlled study of zinc sulfate in the treatment of attention deficit hyperactivity disorder. Prog in Neuropsychopharmacol Biol Psychiatry. 2004;28(1):181-190.	No control group as per protocol
Boellner SW, Pennick M, Fiske K, Lyne A, Shojaei A. Pharmacokinetics of a guanfacine extended-release formulation in children and adolescents with attention-deficit-hyperactivity disorder. Pharmacotherapy. 2007;27(9):1253-1262.	No control group as per protocol
Carucci S, Usala T, Granitzio F, Balia C, Coghill D, Zuddas A. Growth on stimulant medication: Effects in children with ADHD. Eur Neuropsychopharmacol. 2013;23:S605.	No control group as per protocol
Charach A, Figueroa M, Chen S, Ickowicz A, Schachar R. Stimulant treatment over 5 years:	No control group as per protocol

effects on growth. J Am Acad Child Adolesc Psychiatry. 2006;45(4):415-421.	
Chen AY, Kim SE, Houtrow AJ, Newacheck PW. Prevalence of obesity among children with chronic conditions. Obesity (Silver Spring). 2010;18(1):210-213.	Same cohort as Kim J, Mutyala B, Agiovlasitis S, Fernhall B. Health behaviors and obesity among US children with attention deficit hyperactivity disorder by gender and medication use. Prev Med. 2011;52(3-4):218-222.
Choudhry Z, Sengupta SM, Grizenko N, et al. Association between obesity-related gene FTO and ADHD. Obesity (Silver Spring). 2013;21(12):E738-E744.	No control group as per protocol; no anthropometric data
Choudhry Z, Sengupta SM, Grizenko N, et al. Body Weight and ADHD: Examining the Role of Self-Regulation. PloS One. 2013;8(1).	No control group as per protocol
Choudhry Z, Sengupta SM, Grizenko N, et al. Neurocognitive features of ADHD children stratified according to BMI categories. Figshare. 2013-05-28 2013.	Data from Choudhry Z, Sengupta SM, Grizenko N, et al. Body Weight and ADHD: Examining the Role of Self-Regulation. PloS One. 2013;8(1).
Choudhry Z, Sengupta SM, Grizenko N, et al. Motivational style and Motor traits of ADHD children stratified according to BMI categories. Figshare. 2013-05-28 2013.	Data from Choudhry Z, Sengupta SM, Grizenko N, et al. Body Weight and ADHD: Examining the Role of Self-Regulation. PloS One. 2013;8(1).
Choudhry Z, Sengupta SM, Grizenko N, et al. Demographic and baseline characteristics of ADHD children stratified according to three BMI categories. Figshare. 2013-05-28 2013.	Data from Choudhry Z, Sengupta SM, Grizenko N, et al. Body Weight and ADHD: Examining the Role of Self-Regulation. PloS One. 2013;8(1).
Cook BG, Li D, Heinrich KM. Obesity, Physical Activity, and Sedentary Behavior of Youth With Learning Disabilities and ADHD. J Learn Disabil. 2014, in press DOI: 10.1177/0950017012474707.	Same cohort as Lingineni RK, Biswas S, Ahmad N, Jackson BE, Bae S, Singh KP. Factors associated with attention deficit/hyperactivity disorder among US children: results from a national survey. BMC Pediatr. 2012;12:50.
Dahlgren J, Wentz E. Overweight and obese children with diagnosed attention deficit hyperactivity disorder have a favourable weight loss with methylphenidate – One year data. Obes Facts. 2012;5:208.	No control group as per protocol

Duarte CS, Sourander A, Nikolakaros G, et al. Child Mental Health Problems and Obesity in Early Adulthood. J Pediatr. 2010;156(1):93-97.	No appropriate measure of ADHD ("hyperactive problems")
Dura-Trave T, Eugenia Yoldi-Petri M, Gallinas-Victoriano F, Zardoya-Santos P. Effects of Osmotic-Release Methylphenidate on Height and Weight in Children With Attention-Deficit Hyperactivity Disorder (ADHD) Following up to Four Years of Treatment. J Child Neurol. 2012;27(5):604-609.	No control group as per protocol
Ebenegger V, Marques-Vidal P-M, Munsch S, et al. Relationship of Hyperactivity/Inattention With Adiposity and Lifestyle Characteristics in Preschool Children. J Child Neurol. 2012;27(7):852-858.	No categorical diagnosis of ADHD or definition of ADHD based on cut-off values as per protocol
Egmond-Froehlich AWAv, Weghuber D, Zwaan Md. Association of symptoms of attention-deficit/hyperactivity disorder with physical activity, media time, and food intake in children and adolescents. PloS One. 2012;7(11):e49781.	No categorical diagnosis of ADHD or definition of ADHD based on cut-off values as per protocol
Faraone SV, Biederman J, Monuteaux M, Spencer T. Long-term effects of extended-release mixed amphetamine salts treatment of attention- deficit/hyperactivity disorder on growth. J Child and Adolesc Psychopharmacol. 2005;15(2):191-202.	No control group as per protocol
Faraone SV, Giefer EE. Long-term effects of methylphenidate transdermal delivery system treatment of ADHD on growth. J Am Acad Child Adolesc Psychiatry. 2007;46(9):1138-1147.	No control group as per protocol
Faraone SV, Spencer TJ, Kollins SH, Glatt SJ. Effects of lisdexamfetamine dimesylate treatment for ADHD on growth. J Am Acad Child Adolesc Psychiatry. 2010;49(1):24-32.	No control group as per protocol
Farietta-Murray T, Castellanos D, Katsikas S. Effects of stimulants on Hispanic boys' height and weight. J Am Acad Child Adolesc Psychiatry. 2007;46(2):150-151.	Contact with authors to gather data on obesity prevalence not successful
Findling RL, Childress AC, Krishnan S, McGough JJ. Long-term effectiveness and safety of lisdexamfetamine dimesylate in school-aged children with attention-deficit/hyperactivity disorder. CNS Spectr. 2008;13(7):614-620.	No control group as per protocol

Findling RL, Ginsberg LD, Jain R, Gao J. Effectiveness, safety, and tolerability of lisdexamfetamine dimesylate in children with attention-deficit/hyperactivity disorder: an open-label, dose-optimization study. J Child and Adolesc Psychopharmacol. 2009;19(6):649-662.	No control group as per protocol
Friedmann N, Thomas J, Carr R, Elders J, Ringdahl I, Roche A. Effect on growth in pemoline-treated children with attention deficit disorder. Am J Dis Child. 1981;135(4):329-332.	Not possible to gather data on obesity prevalence
Fuemmeler BF, McClernon FJ, Yang C, Pendzich MK, Kollins SH, Ostbye T. Obesity and stage II hypertension in early adulthood are associated with attention deficit/hyperactivity (ADHD) symptoms. Obes Rev. 2010;11:308.	Same cohort as in Fuemmeler B, Ostbye T, Yang C, McClernon F, Kollins S. Association between attention-deficit/hyperactivity disorder symptoms and obesity and hypertension in early adulthood: A population-based study. Int J Obes. 2011;35(6):852-862.
Gabriel A. The mixed amphetamine salt extended release (Adderall XR, Max-XR) as an adjunctive to SSRIS or SNRIS in the treatment of adult ADHD patients with comorbid partially responsive generalized anxiety: an open-label study. Atten Defic Hyperact Disord. 2010;2(2):87-92.	No control group as per protocol
Gabriel A, Violato C. Adjunctive atomoxetine to SSRIs or SNRIs in the treatment of adult ADHD patients with comorbid partially responsive generalized anxiety (GA): an open-label study. Atten Defic Hyperact Disord. 2011;3(4):319-326.	No control group as per protocol
Giedd JN, Concerta Study G. OROS methylphenidate (MPH) treatment for attention-deficit/hyperactivity disorder: Long-term effect on growth. Ann Neurol. 2003;54:S27-S27.	No control group as per protocol
Golinko BE. Side effects of dexedrine in hyperactive children: operationalization and quantification in a short-term trial. Progr Neuropsychopharmacol Biol Psychiatry. 1982;6(2):175-183.	No control group as per protocol
Graziano PA, Bagner DM, Waxmonsky JG, Reid A, McNamara JP, Geffken GR. Co-occurring weight problems among children with attention deficit/hyperactivity disorder: the role	No control group as per protocol

of executive functioning. Int J Obes. 2012;36(4):567-572.	
Greenhill LL, Puig-Antich J, Novacenko H, et al. Prolactin, growth hormone and growth responses in boys with attention deficit disorder and hyperactivity treated with methylphenidate. J Am Acad Child Adolesc Psychiatry. 1984;23(1):58-67.	No control group as per protocol
Gross MD. Growth of hyperkinetic children taking methylphenidate, dextroamphetamine, or imipramine-desipramine. Pediatrics. 1976;58(3):423-431.	No control group as per protocol; some subjects diagnosed with minimal brain dysfunction (exclusionary criterion)
Group MTAC. National Institute of Mental Health Multimodal Treatment Study of ADHD follow-up: changes in effectiveness and growth after the end of treatment. Pediatrics. 2004;113(4):762-769.	Contact with authors to obtain additional data not successful [this applies to all Mental Health Multimodal Treatment Study-related publications as well as the *Preschool ADHD Treatment Study (*PATS) study]
Gustafsson P, Kallen K. Perinatal, maternal, and fetal characteristics of children diagnosed with attention-deficit-hyperactivity disorder: results from a population-based study utilizing the Swedish Medical Birth Register. Dev Med Child Neurol. 2011;53(3):263-268.	No anthropometric data as per protocol
Halfon N, Larson K, Slusser W. Associations between obesity and comorbid mental health, developmental, and physical health conditions in a nationally representative sample of US children aged 10 to 17. Acad Pediatr. 2013;13(1):6-13.	Same cohort as Lingineni RK, Biswas S, Ahmad N, Jackson BE, Bae S, Singh KP. Factors associated with attention deficit/hyperactivity disorder among US children: results from a national survey. BMC Pediatr. 2012;12:50.
Halmoy A, Klungsoyr K, Skjaerven R, Haavik J. Pre- and perinatal risk factors in adults with attention-deficit/hyperactivity disorder. Biol Psychiatry. 2012;71(5):474-481.	No anthropometric data as per protocol
Hanc T, Cieslik J. Growth in stimulant-I children with attention-deficit/hyperactivity disorder using cross-sectional and longitudinal approaches. Pediatrics. 2008;121(4):e967-974.	Contacted via e-mail, first author stated that part of the subjects included in this study were also included in Hanc T, Slopien A, Wolanczyk T, et al. ADHD and overweight in boys: cross-sectional study with birth weight as a controlled factor. Eur Child

	Adolesc Psychiatry. 2014. DOI 10.1007/s00787-014-0531-1.
Hanc T, Cieslik J, Wolanczyk T, Gajdzik M. Assessment of growth in pharmacological treatment-I Polish boys with attention-deficit/hyperactivity disorder. J Child and Adolesc Psychopharmacol. 2012;22(4):300-306.	Contacted via e-mail, first author stated that part of the subjects included in this study were also included in Hanc T, Slopien A, Wolanczyk T, et al. ADHD and overweight in boys: cross-sectional study with birth weight as a controlled factor. Eur Child Adolesc Psychiatry. 2014. DOI 10.1007/s00787-014-0531-1.
Hanc T, Cieslik J. Developmental changes in body mass and frequency of overweight and obesity in boys with Attention Deficit Hyperactivity Disorder. Polish J Environ Studies. 2008; 4A: 162-167.	Contacted via e-mail, first author stated that part of the subjects included in this study were also included in Hanc T, Slopien A, Wolanczyk T, et al. ADHD and overweight in boys: cross-sectional study with birth weight as a controlled factor. Eur Child Adolesc Psychiatry. 2014. DOI 10.1007/s00787-014-0531-1.
Hartmann AS, Rief W, Hilbert A. Impulsivity and negative mood in adolescents with loss of control eating and ADHD symptoms: an experimental study. Eat Weight Disord. 2013;18(1):53-60.	Refers to same sample as Hartmann AS, Rief W, Hilbert A. Laboratory snack food intake, negative mood, and impulsivity in youth with ADHD symptoms and episodes of loss of control eating. Where is the missing link? Appetite. 2012;58(2):672-678.
Heinonen K, Raikkonen K, Pesonen A-K, et al. Trajectories of growth and symptoms of attention-deficit/hyperactivity disorder in children: a longitudinal study. BMC Pediatr. 2011;11:84.	No categorical diagnosis of ADHD or definition of ADHD based on cut-off values as per protocol
Hellgren L, Gillberg C, Gillberg IC, Enerskog I. Children with deficits in attention, motor control and perception (DAMP) almost grown up: general health at 16 years. Dev Med Child Neurol. 1993;35(10):881-892.	DAMP (deficit in attention, motor control and perception) (exclusion criterion as per protocol); data requested for subsample with ADHD but contact with authors not successful
Hinney A, Albayrak, Putter C, et al. Obesity risk allele is associated with childhood attention-deficit/hyperactivity disorder: A cross disorder analysis. Obes Facts. 2012;5:175-176.	Same sample as Albayrak O, Puetter C, Volckmar A-L, et al. Common obesity risk alleles in childhood attention-deficit/hyperactivity disorder. Am

	J Med Gen Part B-Neuropsychiatri Genet. 2013;162B(4):295-305.
Holtkamp K, Konrad K, Muller B, et al. Overweight and obesity in children with Attention-Deficit/Hyperactivity Disorder. Int J Obes. 2004;28(5):685-689.	No control group as per protocol [a]
Hubel R, Jass J, Marcus A, Laessle RG. The relationship between nutritional intake and ADHD symptoms in boys: Preliminary results of a control study. Zeitschrift Fur Gesundheitspsychologie. 2008;16(4):196-200.	No categorical diagnosis of ADHD or definition of ADHD based on cut-off values as per protocol
Iseri E, Kilic BG, Senol S, Karabacak NI. Effects of methylphenidate on leptin and appetite in children with attention-deficit hyperactivity disorder: an open label trial. Methods Find Exp Clin Pharmacol. 2007;29(1):47-52.	Contact with authors to gather data on obesity prevalence not successful
Ivan I, Azarbad L, Corsica J, Hood M. Does Binge Eating Mediate the Relationship Between ADHD Characteristics and Obesity Severity? Obesity. 2009;17:S286-S287.	No inclusion criteria for subjects (candidates to bariatric surgery)
Janicke DM, Harman JS, Kelleher KJ, Zhang J. The association of psychiatric diagnoses, health service use, and expenditures in children with obesity-related health conditions. J Pediatr Psychol. 2009;34(1):79-88.	No inclusion criteria for subjects (children with obesity-related conditions, i.e., metabolic diseases); No anthropometric data as per protocol
Kalachnik JE, Sprague RL, Sleator EK, Cohen MN, Ullmann RK. Effect of methylphenidate hydrochloride on stature of hyperactive children. Dev Med Child Neurol. 1982;24(5):586-595.	Authors contacted; not able to provide requested data
Kamal M, Bener A, Ehlayel MS. Is high prevalence of vitamin D deficiency a correlate for attention deficit hyperactivity disorder? Atten Defic Hyperact Disord 2014;6(2):73-78.	Same sample as in Bener A, Kamal M. Predict attention deficit hyperactivity disorder? Evidence – based medicine. Glob J Health Sci. 2014;6(2):47-57.
Khalife N, Kantomaa M, Glover V, et al. Obesity and physical inactivity are associated with ADHD symptoms in adolescents. Eur J Epidemiol. 2013;(1):S126-S127.	Same sample as in Khalife N, Kantomaa M, Glover V, et al. Childhood attention-deficit/hyperactivity disorder symptoms are risk factors for obesity and physical inactivity in adolescence. J Am Acad Child Adolesc Psychiatry. 2014;53(4):425-436.

Kim MK, Lee HA, Kim EJ, et al. The association between overweight and attention deficit/ hyperactivity disorder (ADHD) in childhood. Am J Epidemiol. 2011;173:S126.	Contact with authors to gather data on obesity prevalence and study details not successful
Kim J, Fernhall B. Overweight among Children with Attention Deficit Hyperactivity Disorder. Disabil Health J. 2009;2(1):E7-E8.	Same cohort as in Kim J, Mutyala B, Agiovlasitis S, Fernhall B. Health behaviors and obesity among US children with attention deficit hyperactivity disorder by gender and medication use. Prev Med. 2011;52(3-4):218-222.
Klein RG, Landa B, Mattes JA, Klein DF. Methylphenidate and growth in hyperactive children. A controlled withdrawal study. Arch Gen Psychiatry. 1988;45(12):1127-1130.	Data on weight and height not available at baseline. Data on weight and height at 33-y FU analyzed in Cortese S, Olazagasti MAR, Klein RG, Castellanos FX, Proal E, Mannuzza S. Obesity in Men With Childhood ADHD: A 33-Year Controlled, Prospective, Follow-up Study. Pediatrics. 2013;131(6):E1731-E1738.
Klein RG, Mannuzza S. Hyperactive boys almost grown up. III. Methylphenidate effects on ultimate height. Arch Gen Psychiatry. 1988;45(12):1131-1134.	Data on weight and height not available at baseline. Data on weight and height at 33-y FU analyzed in Cortese S, Olazagasti MAR, Klein RG, Castellanos FX, Proal E, Mannuzza S. Obesity in Men With Childhood ADHD: A 33-Year Controlled, Prospective, Follow-up Study. Pediatrics. 2013;131(6):E1731-E1738.
Korczak DJ, Lipman E, Morrison K, Duku E, Szatmari P. Child and adolescent psychopathology predicts increased adult body mass index: results from a prospective community sample. J Dev Behav Pediatr 2014;35(2):108-117.	Contact with authors to gather additional data not successful
Koshy G, Delpishesh A, Brabin B. Obesity and parental smoking as risk factors for childhood adhd in Liverpool children. J Epidemiol Community Health 2011;65(Suppl 1): A236.	Same sample as in Koshy G, Delpisheh A, Brabin B. Childhood obesity and parental smoking as risk factors for childhood adhd in Liverpool children. Atten Defic Hyperact Disord. 2011;3(1): 21-28
Kuzelova H, Ptacek R, Papezova H. Signs of nutrition in ADHD children. Eur Psychiatry. 2011 (Suppl 1);26.	Contact with authors to gather data on obesity prevalence and clarify possible overlap of subjects across

	studies by the same first author not successful
Lam LT, Yang L. Overweight/obesity and attention deficit and hyperactivity disorder tendency among adolescents in China. Int J Obes. 2007;31(4):584-590.	Authors contacted; they replied that no cut-off point was used in relation to ADHD symptoms. Therefore, no inclusion criterion for subjects as per protocol
Landrigan PJ. The national children's study and its relationship to prospective international studies in child health. Birth Defects Research Part A - Clinical and Molecular Teratology. 2012;94 (5):379.	Research protocol/review
Landrigan PJ. The national children's study and its relationship to prospective international studies in child health. Birth Defects Research Part A - Clinical and Molecular Teratology. 2012;94 (5):379.	Research protocol/review (same as the previous one)
Langley K, Fowler T, Ford T, et al. Adolescent clinical outcomes for young people with attention-deficit hyperactivity disorder. Br J Psychiatry 2010;196(3):235-240.	No anthropometric data as per protocol
Lecendreux M, Zuddas A, Banaschewski T, et al. Weight-related safety outcomes of lisdexamfetamine dimesylate in children and adolescents with attention-deficit/hyperactivity disorder. Eur Child Adolesc Psychiatry. 2013;(1):S223.	No control group as per protocol
Levitan RD, Masellis M, Lam RW, et al. Childhood inattention and dysphoria and adult obesity associated with the dopamine D4 receptor gene in overeating women with seasonal affective disorder. Neuropsychopharmacology. 2004;29(1):179-186.	No inclusion criteria for subjects as per protocol (women with seasonal affective disorder, SAD)
Levy LD, Fleming JP, Klar D. Treatment of refractory obesity in severely obese adults following management of newly diagnosed attention deficit hyperactivity disorder. Int J Obes. 2009;33(3):326-334.	No inclusion criteria for subjects as per protocol (subjects with obesity)
Lubell EC. An examination of the diagnosis of adult attention deficit hyperactivity disorder and incidence of impulsivity, obesity and alcohol abuse. Dissertation Abstracts International: Section B: The Sciences and Engineering. 1999;60(3-B):1020.	Not possible to contact the authors to request data

McGee R, Birkbeck J, Silva PA. Physical development of hyperactive boys. Dev Med Child Neurol. 1985;27(3):364-368.	Contact with authors to gather data on obesity prevalence not successful
McGough JJ, McBurnett K, Bukstein O, et al. Once-daily OROS methylphenidate is safe and well tolerated in adolescents with attention-deficit/hyperactivity disorder. J Child and Adolesc Psychopharmacol. 2006;16(3):351-356.	No control group as per protocol
McWilliams L, Sayal K, Glazebrook C. Inattention and hyperactivity in children at risk of obesity: A community cross-sectional study. BMJ Open. 2013;3(5).	No inclusion criteria as per protocol (subjects included here if rated as overweight, with low exercise self-efficacy, or asthma)
McWilliams LA, Sayal K, Mullan NK, Nathan D, Glazebrook C. Symptoms of inattention and hyperactivity in children with risk factors for obesity. Pediatr Res. 2011;70:385-385.	No inclusion criteria as per protocol (subjects included here if rated as overweight, with low exercise self-efficacy, self-reported inactivity or asthma)
Millichap JG. Growth of hyperactive children treated with methylphenidate. J Learn Disabil. 1978;11(9):567-570.	No control group as per protocol; reference group not specified
Moungnoi P, Maipang P. Long-term effects of short-acting methylphenidate on growth rates of children with attention deficit hyperactivity disorder at Queen Sirikit National Institute of Child Health. J Med Assoc Thai. 2011;94 Suppl 3:S158-163.	No control group as per protocol
Mueller F, Brielmaier S, Domsch H, Luyckx V, Ehlers T, Krowatschek D. Increased resting energy expenditure in children with attention-deficit-hyperactivity disorder. Eat Weight Disord. 2010;15(3):e144-e151.	Authors contacted; not able to provide data on obesity prevalence
Mustillo S, Worthman C, Erkanli A, Keeler G, Angold A, Costello EJ. Obesity and psychiatric disorder: developmental trajectories. Pediatrics. 2003;111(4 Pt 1):851-859	Contact with authors to gather data on obesity prevalence in ADHD at baseline not successful
Newcorn JH, Stein MA, Cooper KM. Dose-response characteristics in adolescents with attention-deficit/hyperactivity disorder treated with OROS methylphenidate in a 4-week, open-label, dose-titration study. J Child and Adolesc Psychopharmacol. 2010;20(3):187-196.	No control group as per protocol
Nurmi EL. Genetic influences on growth effects of dexmethylphenidate and guanfacine in pediatric ADHD. Biol Psychiatry.	No control group as per protocol

2014;(1):347S-348S.	
Patte KA, Davis C, Levitan RD, et al. A Genetic Study of the Aftention-Deficil/Hyperactivity Disorder-Obesity CoMorbidity: The Role of the Dopamine D2 Receptor (DRD2) Gene. Obesity. 2009;17:S225-S226.	No inclusion criteria for subjects as per protocol (adults with binge eating disorder (BED), non BED, controls)
Petrone P, Prunas A, Dazzi S, Madeddu F. ADHD symptoms as risk factors for dysfunctional eating habits in adolescents: Results from a longitudinal study. [Italian] La sintomatologia ADHD come fattore di rischio per lo sviluppo di condotte alimentari patologiche in adolescenza: Uno studio longitudinale. Riv Psichiatr. 2013;48(6):448-455.	Contact with authors to gather obesity prevalence not successful
Porfirio MC, Giana G, Benvenuto A, Giovinazzo S, Belvedere RC, Curatolo P. ADHD, obesity: An Italian clinical sample. Eur Child Adolesc Psychiatry. 2010;19:S28.	Authors contacted; not able to provide requested data on obesity prevalence
Poulton A, Briody J, Melzer E, Baur L. Immediate and long term changes in body composition on stimulant medication. J Paediatr Child Health. 2011;47:10-11	1. Same sample as in Poulton A, Briody J, McCorquodale T, Melzer E, Herrmann M, Baur LA, Duque G. Weight loss on stimulant medication: how does it affect body composition and bone metabolism? - A prospective longitudinal study. Int J Pediatr Endocrinol. 2012; 2012(1):30.
Poulton A, Cowell CT. Slowing of growth in height and weight on stimulants: a characteristic pattern. J Paediatr Child Health. 2003;39(3):180-185.	No control group as per protocol
Ptacek R, Kuzelova H, Stefano GB, et al. Disruptive patterns of eating behaviors and associated lifestyles in males with ADHD. Med Sci Monit. 2014;20:608-613.	No anthropometric data as per protocol
Ptacek R, Kuzelova H, Paclt I, Zukov I. Effect of medication on anthropometric characteristic of ADHD children. Ceska Slov Psychiatr. 2008;104(8):415-419.	Contact with authors to gather data on obesity prevalence and clarify possible overlap of subjects across studies by the same first author not successful
Ptacek R, Kuzelova H, Paclt I, Zukov I, Fischer S. ADHD and growth: anthropometric changes	Contact with authors to gather data on obesity prevalence and clarify

in medicated and non-medicated ADHD boys. Med Sci Monit. 2009;15(12):CR595-599.	possible overlap of subjects across studies by the same first author not successful
Ptacek R, Kuzelova H, Paclt I, Zukov I, Fischer S. Somatic and endocrinological changes in non medicated ADHD children. Prague Med Rep. 2009;110(1):25-34.	Review of the literature with no original data
Ptacek R, Kuzelova H, Paclt I, Zukov I, Fischer S. Developmental changes in children with ADHD and effecto of medication on growth. [Czech]. Vyvojove zmeny u deti s ADHD a vliv medikace na rust. Psychiatrie. 2009;13(SUPPL. 2):104-105.	Contact with authors to gather data on obesity prevalence and clarify possible overlap of subjects across studies by the same first author not successful
Ptacek R, Kuzelva H, Paclt I, Zukov I, Fischer S. Anthropometric changes in non-medicated ADHD boys. Neuro Endocrinol Lett. 2009;30(3):377-381.	Contact with authors to gather data on obesity prevalence and clarify possible overlap of subjects across studies by the same first author not successful
Rapport MD, Denney C. Titrating methylphenidate in children with attention-deficit/hyperactivity disorder: is body mass predictive of clinical response? J Am Acad Child Adolesc Psychiatry. 1997;36(4):523-530.	No control group as per protocol
Rapport MD, DuPaul GJ, Kelly KL. Attention deficit hyperactivity disorder and methylphenidate: the relationship between gross body weight and drug response in children. Psychopharmacol Bull. 1989;25(2):285-290.	No control group as per protocol
Ratcliff KL. Using Adiposity Change in College Freshman to Examine the Comorbidity of ADHD and Obesity. Dissertation Abstracts International: Section B: The Sciences and Engineering. 2010;71(6-B):3945.	Contact with authors to gather additional information on study measures not successful
Roizen NJ, Blondis TA, Pfieffer LJ. Obese children with ADHD exhibit inferior ball skills compared to ADHD children without obesity. Pediatr Res. 2002;51(4):29A-29A.	No control group as per protocol
Schertz M, Adesman AR, Alfieri NE, Bienkowski RS. Predictors of weight loss in children with attention deficit hyperactivity disorder treated with stimulant medication. Pediatrics. 1996;98(4 Pt 1):763-769.	No control group as per protocol
Schwartz BS, Bailey-Davis L, Bandeen-Roche K, et al. Attention deficit disorder, stimulant use, and childhood body mass index trajectory. Pediatrics. 2014;133(4):668-676.	Authors contacted; not able to provide requested data on obesity prevalence

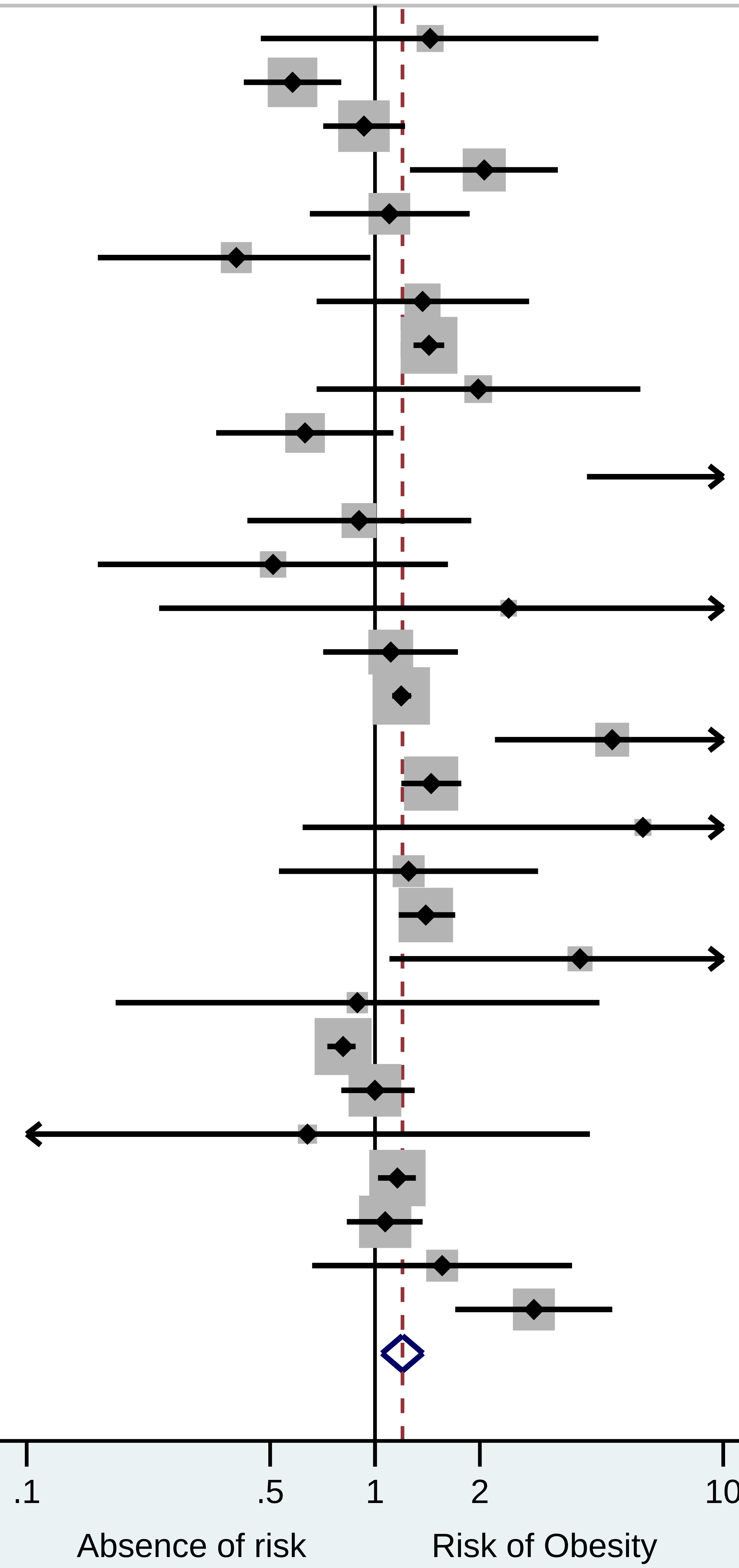
Spencer TJ, Faraone SV, Biederman J, et al. Does prolonged therapy with a long-acting stimulant suppress growth in children with ADHD? J Am Acad Child Adolesc Psychiatry. 2006;45(5):527-537.	No control group as per protocol
Spencer TJ, Kratochvil CJ, Sangal R, et al. Effects of atomoxetine on growth in children with attention-deficit/hyperactivity disorder following up to five years of treatment. J Child and Adolesc Psychopharmacol. 2007;17(5):689-699.	No control group as per protocol
Spencer TJ, Newcorn JH, Kratchvil CJ, Ruff D, Michelson D, Biederman J. Effects of atomoxetine on growth after 2-year treatment among pediatric patients with attention-deficit/hyperactivity disorder. Pediatrics. 2005;116(1):e74-80.	No control group as per protocol
Spencer TJ, Biederman J, Harding M, O'Donnell D, Faraone SV, Wilens TE. Growth deficits in ADHD children revisited: evidence for disorder-associated growth delays? J Am Acad Child Adolesc Psychiatry. 1996;35(11):1460-1469.	Authors contacted; not able to provide requested data on obesity prevalence
St Sauver JL, Barbaresi WJ, Katusic SK, Colligan RC, Weaver AL, Jacobsen SJ. Early life risk factors for attention-deficit/hyperactivity disorder: a population-based cohort study. Mayo Clin Proc. 2004;79(9):1124-1131.	No anthropometric data as per protocol
Stocks JD, Taneja BK, Baroldi P, Findling RL. A phase 2a randomized, parallel group, dose-ranging study of molindone in children with attention-deficit/hyperactivity disorder and persistent, serious conduct problems. J Child and Adolesc Psychopharmacol. 2012;22(2):102-111.	No control group as per protocol
Strimas R, Davis C, Patte K, Curtis C, Reid C, McCool C. Symptoms of attention-deficit/hyperactivity disorder, overeating, and body mass index in men. Eat Behav. 2008;9(4):516-518.	No categorical diagnosis of ADHD or definition of ADHD based on cut-off values as per protocol
Upadhyaya HP, Camporeale A, Ramos-Quiroga JA, et al. Safety and tolerability of atomoxetine hydrochloride in a placebo-controlled randomized withdrawal study in adults with attention-deficit/hyperactivity disorder.	No control group as per protocol

Neuropsychopharmacology. 2012;38:S318.	
van Egmond-Froehlich AWA, Weghuber D, de Zwaan M. Association of Symptoms of Attention-Deficit/Hyperactivity Disorder with Physical Activity, Media Time, and Food Intake in Children and Adolescents. PloS One. 2012;7(11).	No categorical diagnosis of ADHD or definition of ADHD based on cut-off values as per protocol
van Egmond-Frohlich A, Widhalm K, de Zwaan M. Association of symptoms of attention-deficit/hyperactivity disorder with childhood overweight adjusted for confounding parental variables. Int J Obes. 2012;36(7):963-968.	No categorical diagnosis of ADHD or definition of ADHD based on cut-off values as per protocol
Verret C, Gardiner P, Beliveau L. Fitness level and gross motor performance of children with attention-deficit hyperactivity disorder. Adapt Phys Activ Q. 2010;27(4):337-351.	Contact with authors to gather additional data not successful
Verret C, Guay M-C, Berthiaume C, Gardiner P, Beliveau L. A Physical Activity Program Improves Behavior and Cognitive Functions in Children With ADHD: An Exploratory Study. J Atten Disord. 2012;16(1):71-80.	No control group as per protocol
von Stumm S, Deary IJ, Kivimaki M, Jokela M, Clark H, Batty GD. Childhood behavior problems and health at midlife: 35-year follow-up of a Scottish birth cohort. J Child Psychol Psychiatry. 2011;52(9):992-1001.	No categorical diagnosis of ADHD or definition of ADHD based on cut-off values as per protocol (“hyperactivity”)
Wilhelm C, Marx I, Konrad K, Willmes K, Holtkamp K, Vloet T, Herpertz-Dahlmann B. Differential patterns of disordered eating in subjects with ADHD and overweight. World J Biol Psychiatry. 2011;12 Suppl 1:118-23.	Contact with authors to gather additional information not successful
Wilhelm C, Marx I, Konrad K, et al. Differential patterns of disordered eating in subjects with ADHD and overweight. World J Biol Psychiatry. 2011;12 Suppl 1:118-123.	Same sample as in Wilhelm C, Marx I, Konrad K, Willmes K, Holtkamp K, Vloet T, Herpertz-Dahlmann B. Differential patterns of disordered eating in subjects with ADHD and overweight. World J Biol Psychiatry. 2011;12 Suppl 1:118-23.
Yook KH, Kim YW, Suh HS. Obesity is associated with non-response to prolonged-release methylphenidate treatment in ADHD. Eur Neuropsychopharmacol. 2012;22:S415-	No control group as per protocol

S416.	
Zachor DA, Roberts AW, Bart Hodgens J, Isaacs JS, Merrick J. Effects of long-term psychostimulant medication on growth of children with ADHD. Res Dev Disabil. 2006;27(2):162-174.	No control group as per protocol

FIGURE S1. Forest Plot Showing the Results of the Subgroup Meta-Analysis of Studies in Children/Adolescents*

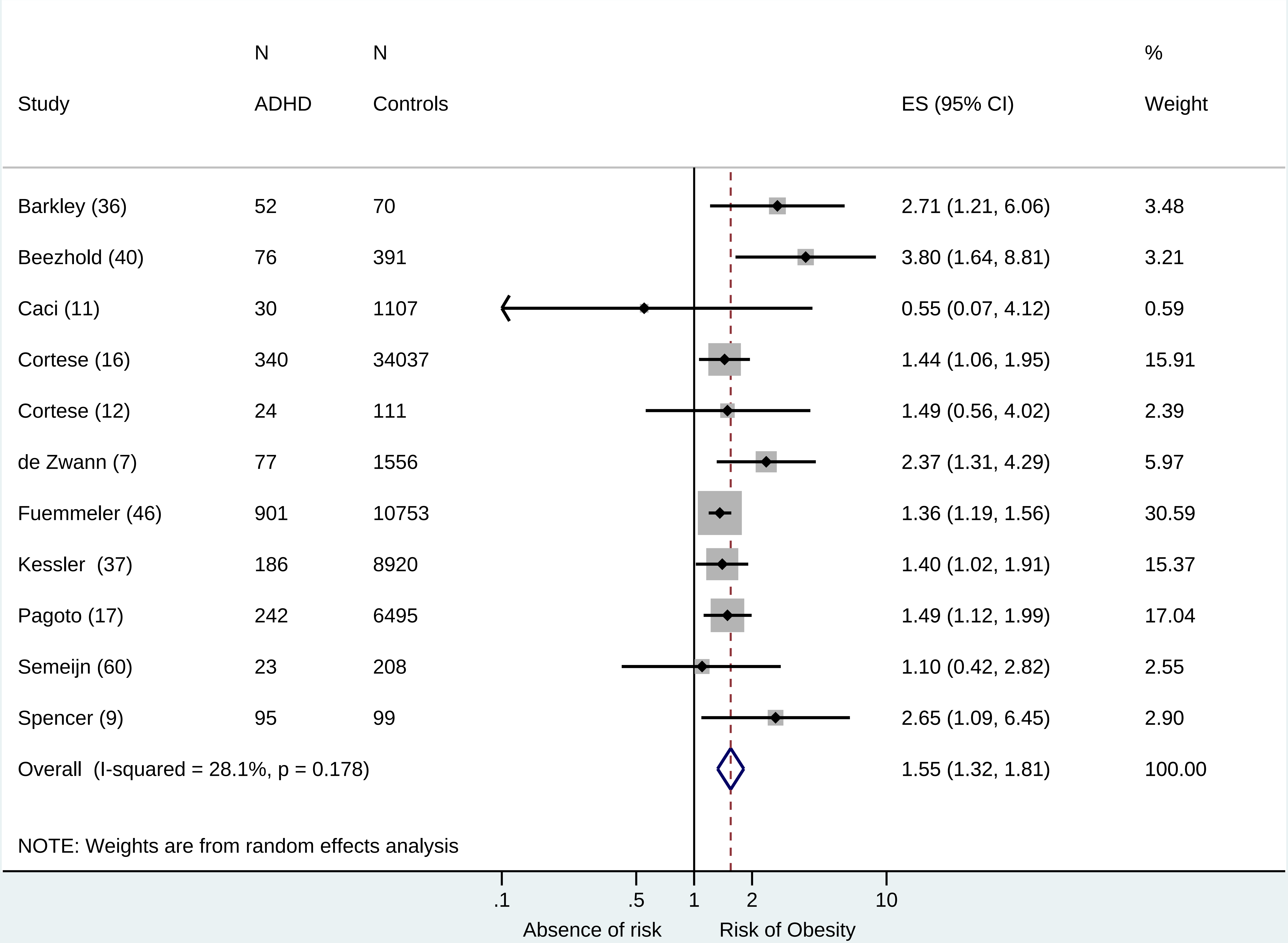
Study	N ADHD	N Controls	ES (95% CI)	% Weight
Azadbakht (39)	36	339	1.44 (0.47, 4.38)	1.22
Bener (20)	1331	1331	0.58 (0.42, 0.80)	5.13
Byrd (41)	412	2638	0.93 (0.71, 1.22)	5.61
Chen (42)	4302	21510	2.06 (1.26, 3.35)	3.72
Curtin (43)	98	8276	1.10 (0.65, 1.87)	3.44
Dubnov-Raz (13)	275	51	0.40 (0.16, 0.97)	1.72
Erhart (21)	101	2313	1.37 (0.68, 2.77)	2.46
Eschenbeck (44)	8214	148734	1.43 (1.29, 1.58)	6.96
Faraone (22)	36	976	1.98 (0.68, 5.78)	1.31
Fliers (45)	372	90071	0.63 (0.35, 1.13)	3.07
Gungor (8)	362	390	30.10 (4.06, 223.01)	0.43
Hanc (47)	219	396	0.90 (0.43, 1.89)	2.29
Hartmann (48)	33	33	0.51 (0.16, 1.62)	1.15
Hubel (49)	39	30	2.42 (0.24, 24.48)	0.33
Khalife (50)	756	111062	1.11 (0.71, 1.73)	4.06
Kim (52)	6070	60573	1.19 (1.12, 1.27)	7.13
Koshy (53)	32	913	4.80 (2.21, 10.43)	2.14
Lingineni (54)	5529	38510	1.45 (1.19, 1.77)	6.26
Menegassi (55)	22	21	5.88 (0.62, 55.38)	0.35
Pauli-Pott (56)	207	153	1.25 (0.53, 2.94)	1.86
Phillips (57)	845	8141	1.40 (1.17, 1.70)	6.36
Poulton (58)	34	241	3.88 (1.10, 13.67)	1.00
Poulton (59)	65	174	0.89 (0.18, 4.41)	0.65
Rojo (18)	7571	27832	0.81 (0.73, 0.88)	7.00
Smith (38)	540	9659	1.00 (0.80, 1.30)	5.87
Tashakori (61)	32	32	0.64 (0.10, 4.14)	0.49
Waring (10)	5680	57204	1.16 (1.02, 1.31)	6.82
White (62)	1766	9623	1.07 (0.83, 1.37)	5.80
Wilhelm (63)	46	48	1.56 (0.66, 3.68)	1.85
Yang (64)	158	3536	2.86 (1.70, 4.80)	3.51
Overall (I-squared = 82.3%, p = 0.000)			1.20 (1.05, 1.37)	100.00



NOTE: Weights are from random effects analysis

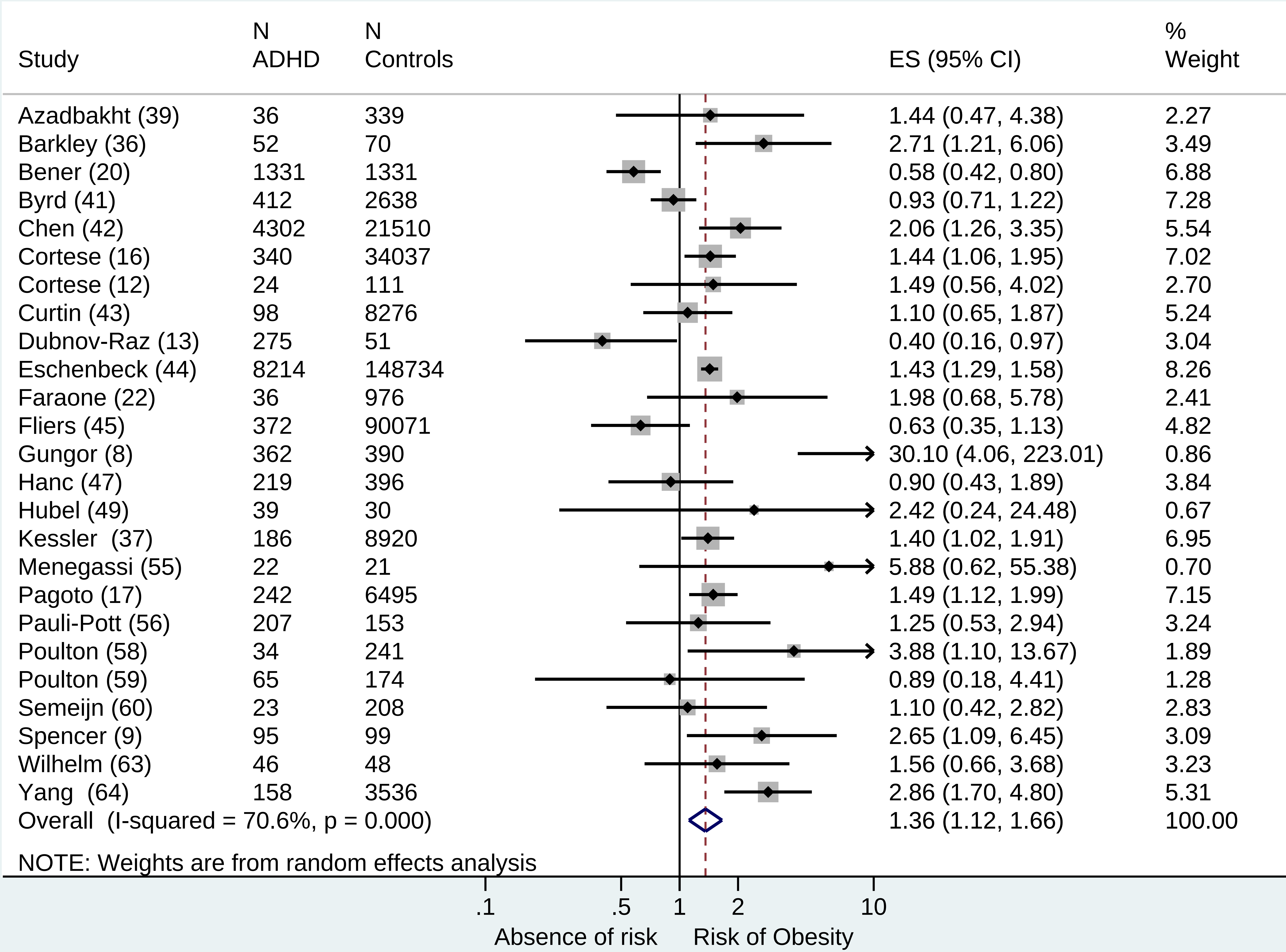
*The area of each square is proportional to the weight that the individual study contributed to the meta-analysis.

FIGURE S2. Forest Plot Showing the Results of the Subgroup Meta-Analysis of Studies in Adults*



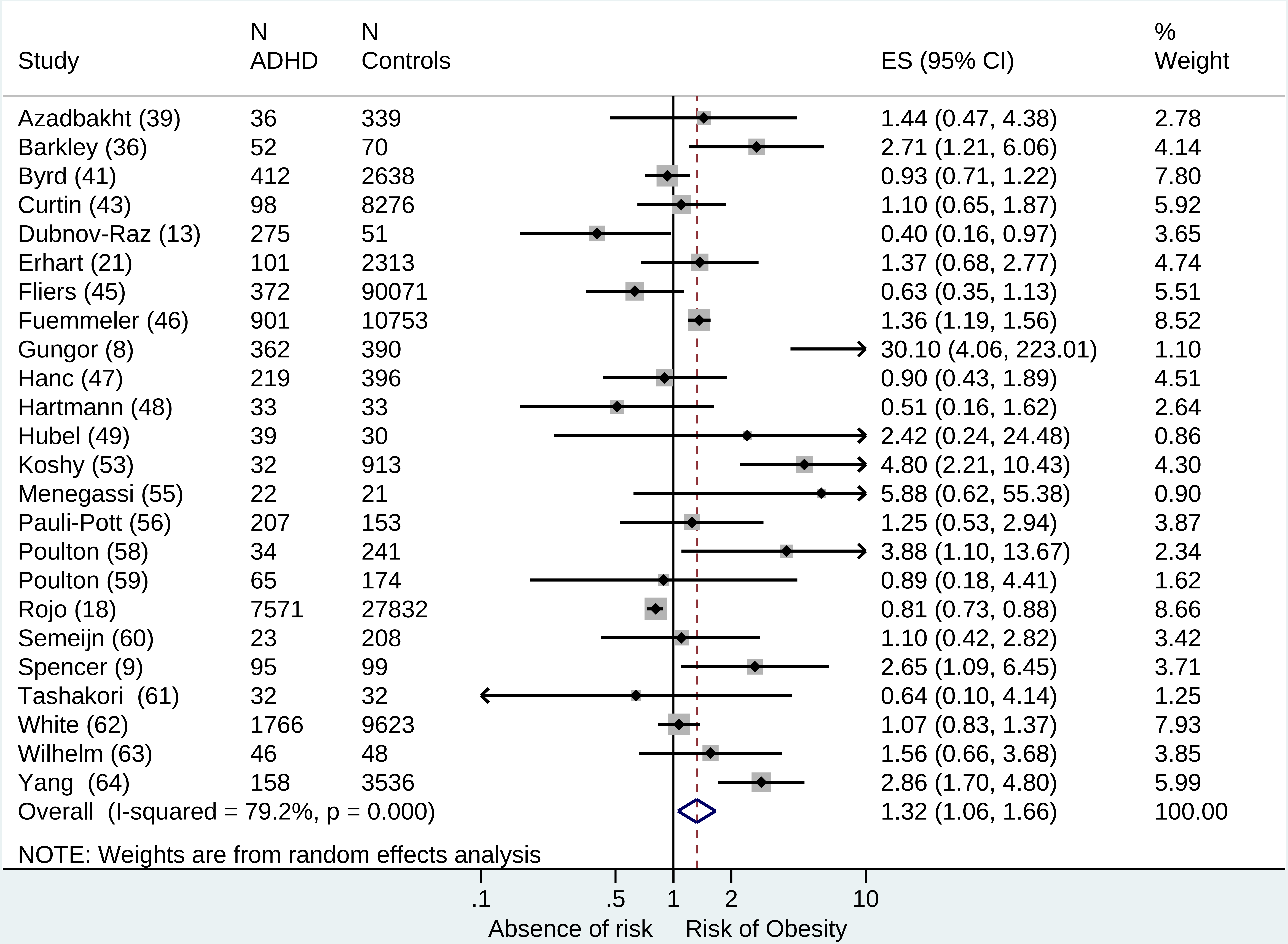
*The area of each square is proportional to the weight that the individual study contributed to the meta-analysis.

FIGURE S3. Forest Plot Showing the Results of the Subgroup Meta-Analysis of Studies With Formal Diagnosis of ADHD Only*



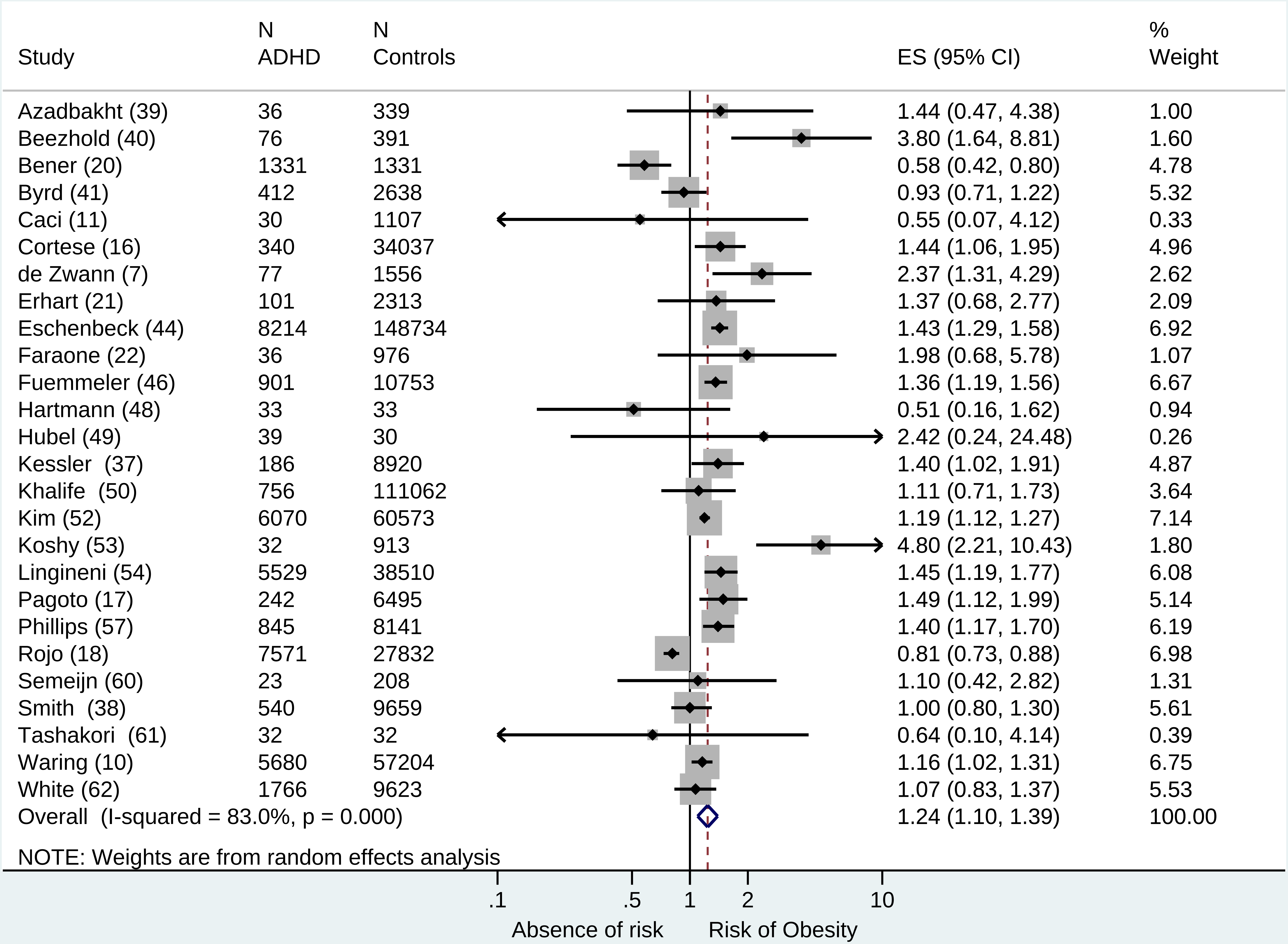
*The area of each square is proportional to the weight that the individual study contributed to the meta-analysis.

FIGURE S4. Forest Plot Showing the Results of the Subgroup Meta-Analysis of Studies With Measured Height and Weight Only*



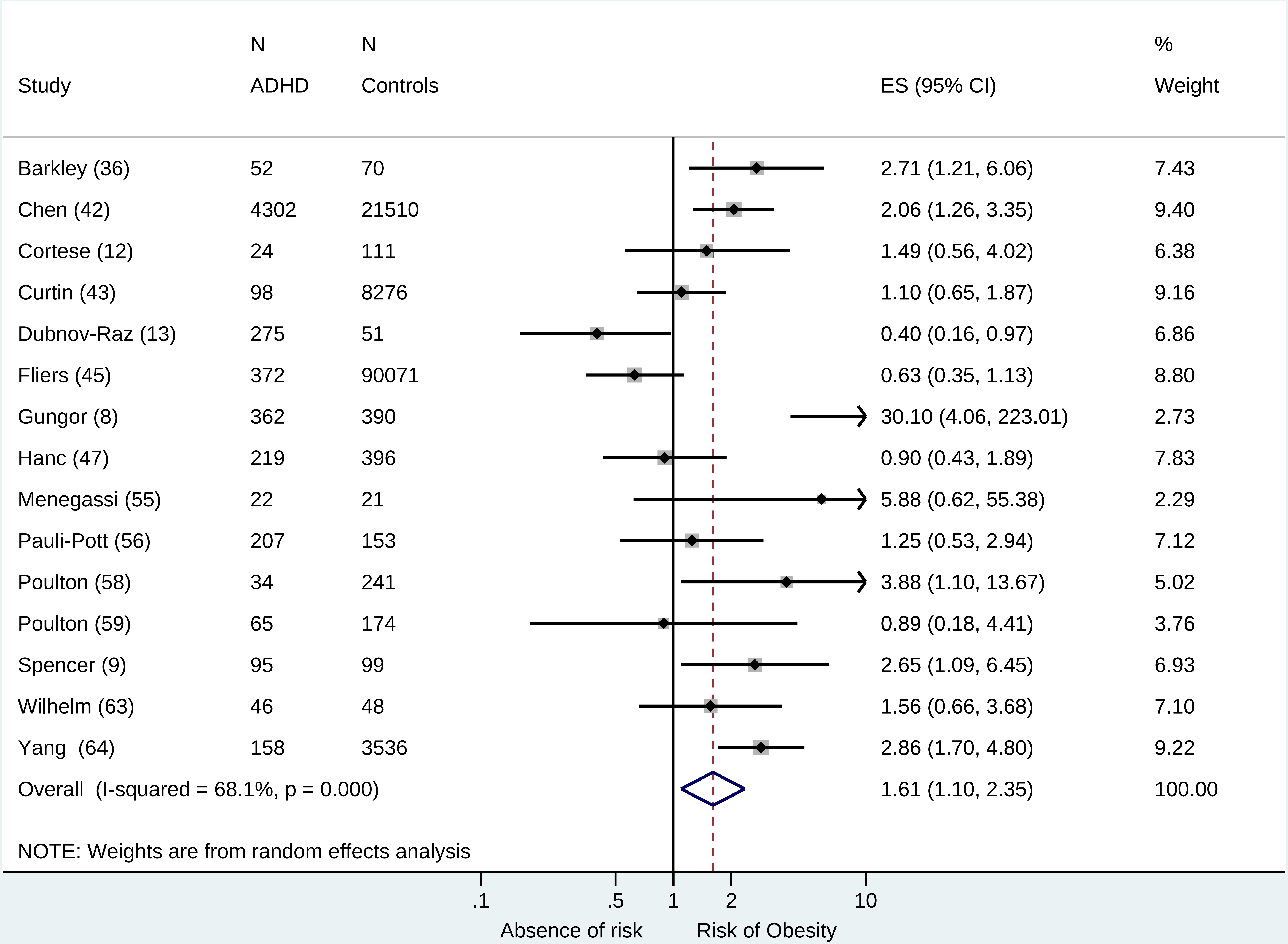
*The area of each square is proportional to the weight that the individual study contributed to the meta-analysis.

FIGURE S5. Forest Plot Showing the Results of the Subgroup Meta-Analysis of Population-Based Studies*



*The area of each square is proportional to the weight that the individual study contributed to the meta-analysis.

FIGURE S6. Forest Plot Showing the Results of the Subgroup Meta-Analysis of Clinical Studies*

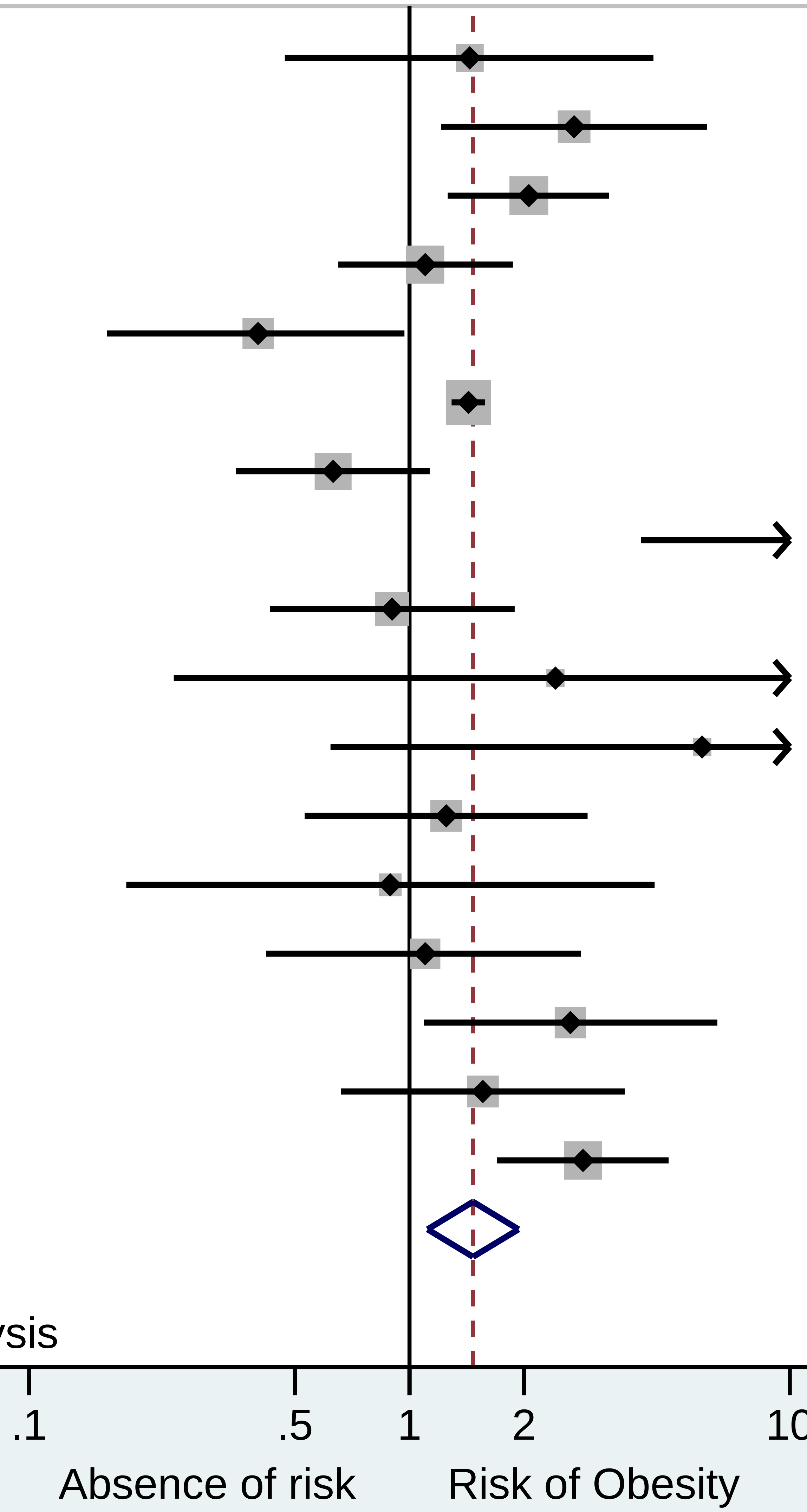


*The area of each square is proportional to the weight that the individual study contributed to the meta-analysis.

FIGURE S7. Forest Plot Showing the Results of the Subgroup Meta-Analysis of Studies With a Formal Diagnosis of ADHD and Direct Measures of Height and Weight*

Study	N ADHD	N Controls	ES (95% CI)	% Weight
Azadbakht (39)	36	339	1.44 (0.47, 4.38)	4.17
Barkley (36)	52	70	2.71 (1.21, 6.06)	6.20
Chen (42)	4302	21510	2.06 (1.26, 3.35)	9.33
Curtin (43)	98	8276	1.10 (0.65, 1.87)	8.89
Dubnov-Raz (13)	275	51	0.40 (0.16, 0.97)	5.47
Eschenbeck (44)	8214	148734	1.43 (1.29, 1.58)	12.98
Fliers (45)	372	90071	0.63 (0.35, 1.13)	8.27
Gungor (8)	362	390	30.10 (4.06, 223.01)	1.65
Hanc (47)	219	396	0.90 (0.43, 1.89)	6.76
Hubel (49)	39	30	2.42 (0.24, 24.48)	1.28
Menegassi (55)	22	21	5.88 (0.62, 55.38)	1.35
Pauli-Pott (56)	207	153	1.25 (0.53, 2.94)	5.80
Poulton (59)	65	174	0.89 (0.18, 4.41)	2.42
Semeijn (60)	23	208	1.10 (0.42, 2.82)	5.12
Spencer (9)	95	99	2.65 (1.09, 6.45)	5.56
Wilhelm (63)	46	48	1.56 (0.66, 3.68)	5.78
Yang (64)	158	3536	2.86 (1.70, 4.80)	8.99
Overall (I-squared = 62.1%, p = 0.000)			1.47 (1.12, 1.93)	100.00

NOTE: Weights are from random effects analysis

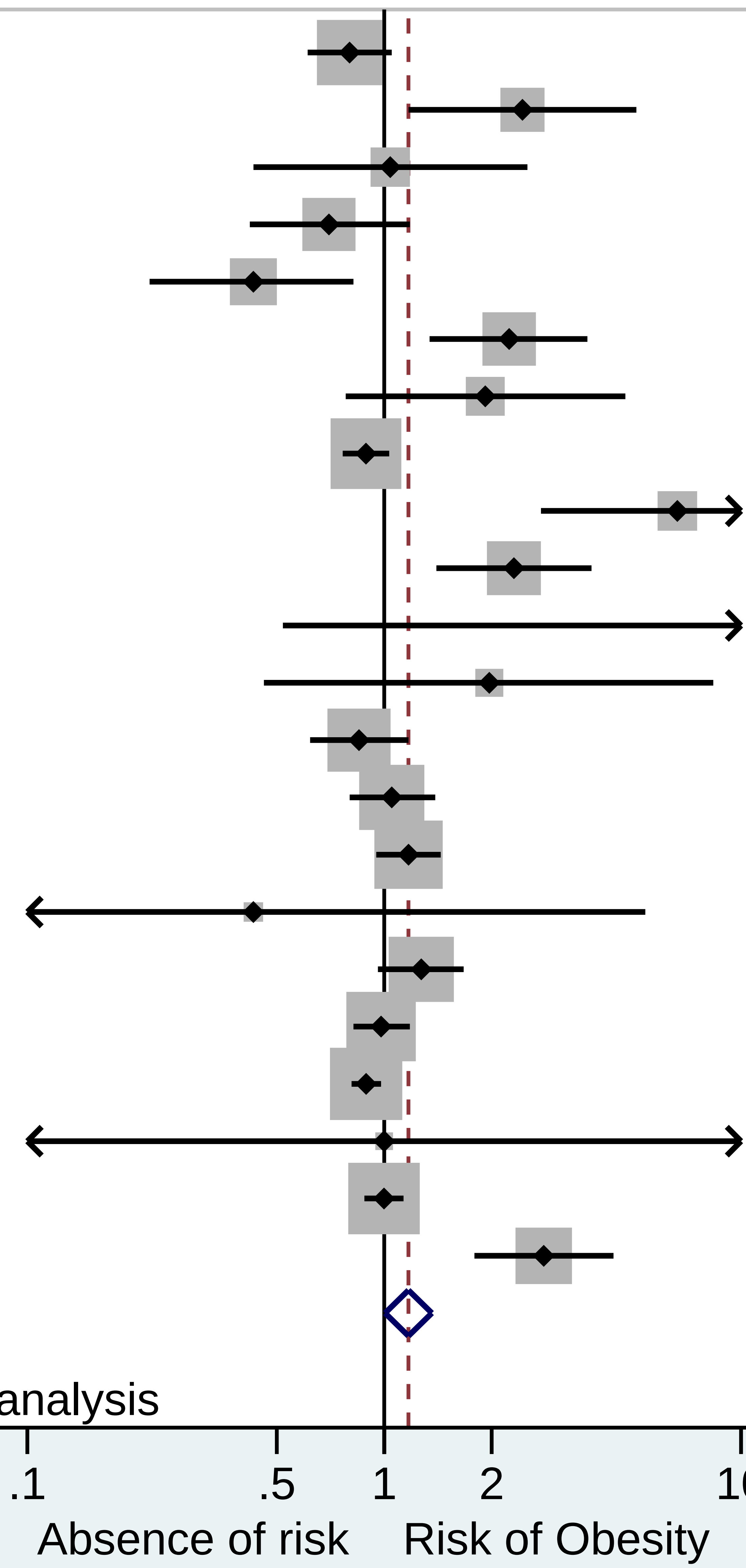


*The area of each square is proportional to the weight that the individual study contributed to the meta-analysis.

FIGURE S8. Forest Plot Showing the Results of the Meta-Analysis of Studies Reporting the Association Between Overweight and ADHD*

Study	N ADHD	N Controls	ES (95% CI)	% Weight
Bener (20)	1331	1331	0.80 (0.61, 1.05)	6.88
Caci (11)	30	1107	2.44 (1.17, 5.09)	2.85
Cortese (12)	24	111	1.04 (0.43, 2.52)	2.19
de Zwann (7)	77	1556	0.70 (0.42, 1.18)	4.34
Dubnov-Raz (13)	275	51	0.43 (0.22, 0.82)	3.30
Erhart (21)	101	2313	2.24 (1.34, 3.71)	4.40
Faraone (22)	36	976	1.92 (0.78, 4.74)	2.12
Fuemmeler (46)	901	10753	0.89 (0.76, 1.03)	8.14
Gungor (8)	362	390	6.63 (2.75, 16.00)	2.20
Hanc (47)	219	396	2.31 (1.40, 3.81)	4.48
Hartmann (48)	33	33	10.22 (0.52, 197.90)	0.25
Hubel (49)	39	30	1.97 (0.46, 8.36)	0.96
Kessler (37)	186	8920	0.85 (0.62, 1.17)	6.36
Khalife (50)	756	111062	1.05 (0.80, 1.39)	6.82
Lingineni (54)	5529	38510	1.17 (0.95, 1.44)	7.58
Menegassi (55)	22	21	0.43 (0.04, 5.39)	0.36
Pagoto (17)	242	6495	1.27 (0.96, 1.67)	6.82
Phillips (57)	845	8141	0.98 (0.82, 1.18)	7.84
Rojo (18)	7571	27832	0.89 (0.81, 0.98)	8.55
Tashakori (61)	32	32	1.00 (0.06, 16.71)	0.28
Waring (10)	5680	57204	1.00 (0.88, 1.13)	8.33
Yang (64)	158	3536	2.80 (1.79, 4.39)	4.96
Overall (I-squared = 77.8%, p = 0.000)			1.17 (1.01, 1.36)	100.00

NOTE: Weights are from random effects analysis



*The area of each square is proportional to the weight that the individual study contributed to the meta-analysis.