Supplementary Material

Article Title: The Long-Term Effects of Maternal Postnatal Depression on a Child's Intelligence Quotient: A Meta-Analysis of Prospective Cohort Studies Based on 974 Cases

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List of Supplementary Material for the article

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eTable 1 Ottawa quality assessment scale cohort studies

Author	1	2	3	4	5	6	7	8	Total score
Milgrom et al[18]	1	0	1	1	0	1	1	0	5
Kurstjens et al[20]	1	1	1	1	0	1	1	1	7
Murray et al[21]	1	1	1	1	1	1	1	1	8
Evans et al[30]	1	1	0	1	0	1	1	0	5
Sharp et al (South London UK)[33]	1	1	1	1	0	1	1	1	7
Hay et al (South London UK)[19]	1	1	1	1	0	1	1	1	7
Hay et al (North London UK)[31]	1	1	1	1	0	1	1	1	7
McMahon et al[32]	1	1	1	1	0	1	1	1	7
Kersten-Alvarez et al[29]	1	0	0	1	2	1	1	1	7

1.Representativeness of the exposed cohort; 2. Selection of the non-exposed cohort

3. Ascertainment of exposure; 4. Demonstration that outcome of interest was not present at start of study; 5. Comparability of cohorts on the basis of the design or analysis; 6. Assessment of outcome; 7. Was follow-up long enough for outcomes to occur; 8. Adequacy of follow-up of cohorts

eFigure 1: Forest plot of the associations between maternal postnatal depression and full IQ among children

author	location	WMD (95% CI)	% Weight
Milgrom et al[18]	Victoria, Australia	-6.60 (-12.35, -0.85)	10.82
Kurstjens et al[20]	Germany	-1.30 (-4.99, 2.39)	17.67
Murray et al[21]	Cambridge, UK	-2.30 (-7.16, 2.56)	13.34
Evans et al[30]	Avon, UK	-2.36 (-3.65, -1.07)	28.91
Hay et al[19]	South London, UK	-9.44 (-16.20, -2.68)	8.65
Hay et al[31]	North London, UK	-9.80 (-16.60, -3.00)	8.57
Sharp et al[33]	South London,UK	-6.60 (-11.89, -1.31)	12.04
Overall (I-squared = 51.9%, p = 0.052)		-4.38 (-6.71, -2.05)	100.00

NOTE: Weights are from random effects analysis
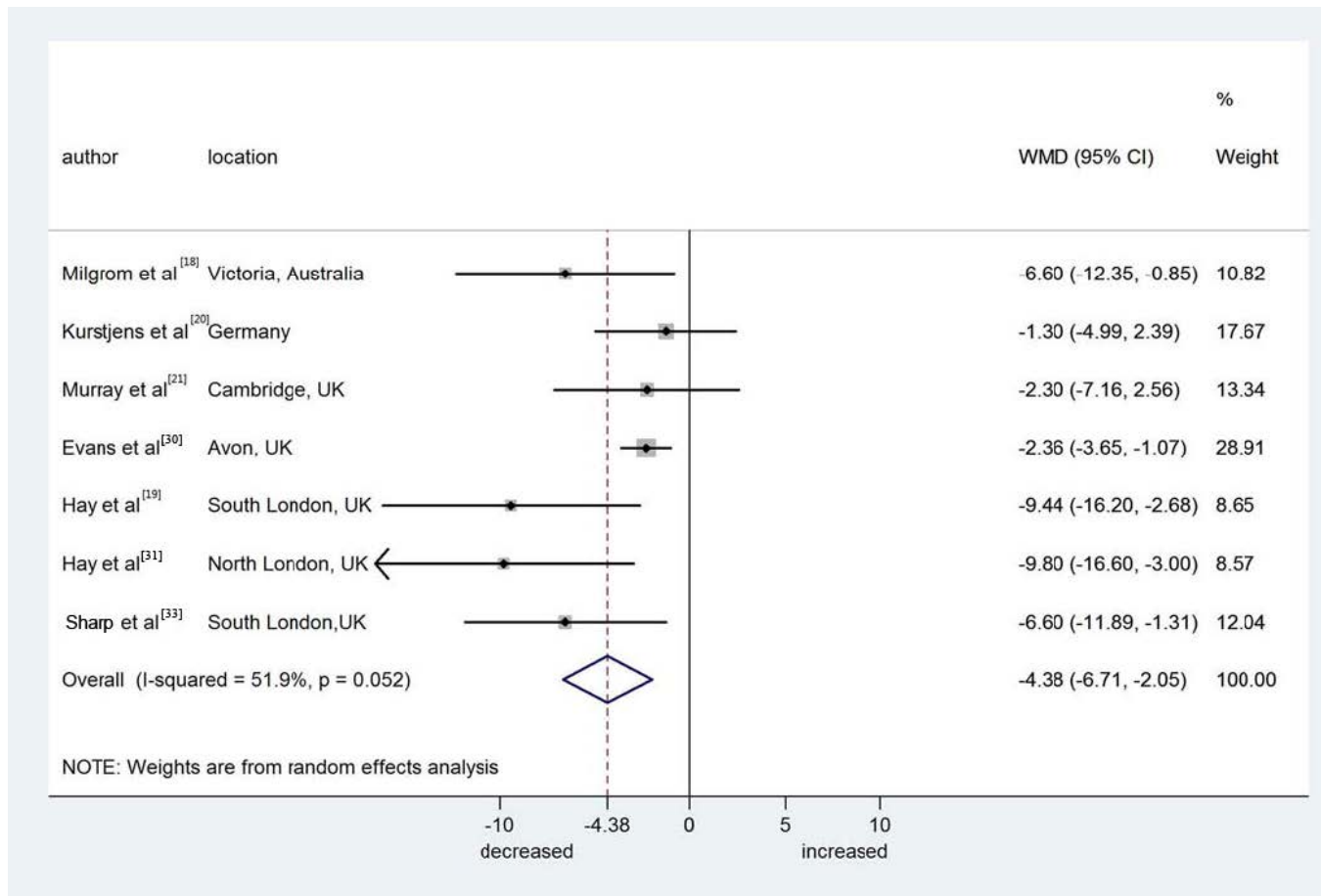
Abbreviations: IQ=intelligence quotient, WMD=weighted mean difference

eFigure 2: Associations between maternal postnatal depression and full IQ among children: subgroup analysis based on socio-economic status
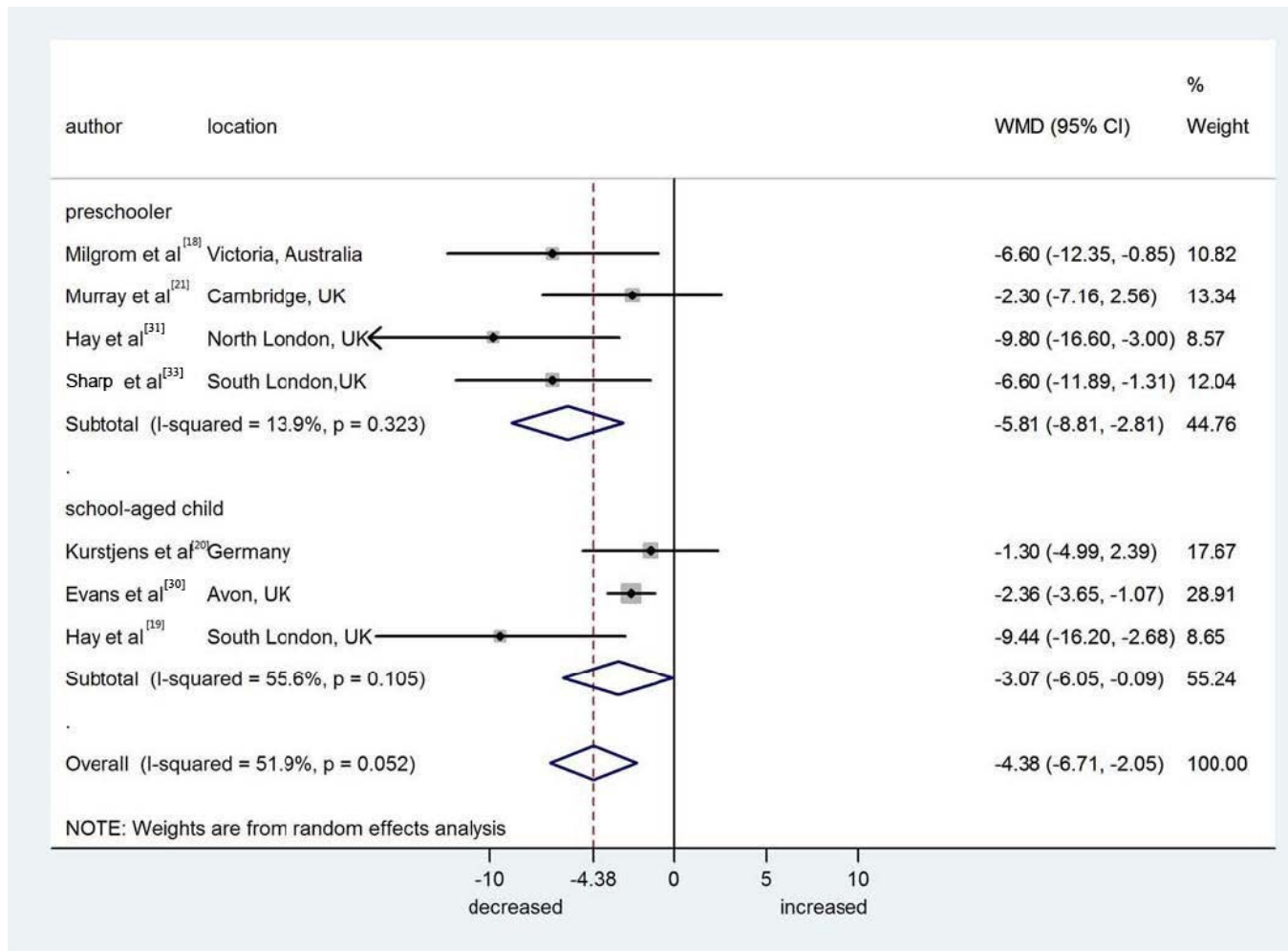

author	location	WMD (95% CI)	% Weight
middle and high SES			
Kurstjens et al[20]	Germany	-1.30 (-4.99, 2.39)	19.82
Murray et al[21]	Cambridge, UK	-2.30 (-7.16, 2.56)	15.04
Evans et al[30]	Avon, UK	-2.36 (-3.65, -1.07)	32.02
Hay et al[31]	North London, UK	-9.80 (-16.60, -3.00)	9.72
Subtotal (I-squared = 38.5%, p = 0.181)		-2.79 (-5.01, -0.56)	76.60
low SES			
Hay et al[19]	South London, UK	-9.44 (-16.20, -2.68)	9.81
Sharp et al[33]	South London,UK	-6.60 (-11.89, -1.31)	13.60
Subtotal (I-squared = 0.0%, p = 0.517)		-7.68 (-11.84, -3.51)	23.40
Overall (I-squared = 54.1%, p = 0.054)		-4.13 (-6.63, -1.64)	100.00

NOTE: Weights are from random effects analysis

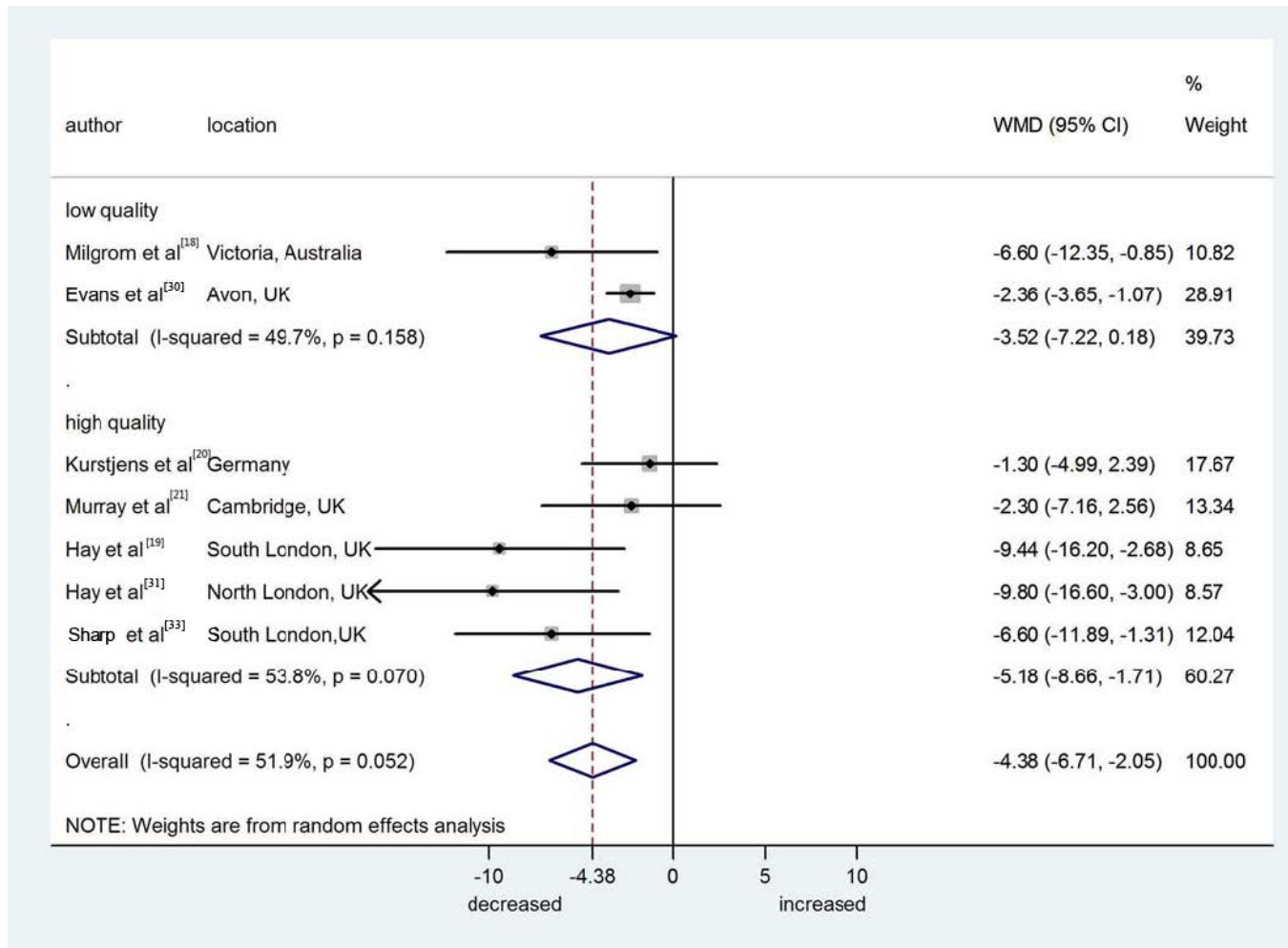-10   -4.38   0   5   10
decreased   increased

Abbreviations: IQ=intelligence quotient, SES=socioeconomic status,WMD=weighted mean difference

eFigure 3: Associations between maternal postnatal depression and full IQ among children: subgroup analysis based on child's age at evaluation

author	location	WMD (95% CI)	% Weight
preschooler			
Milgrom et al[18]	Victoria, Australia	-6.60 (-12.35, -0.85)	10.82
Murray et al[21]	Cambridge, UK	-2.30 (-7.16, 2.56)	13.34
Hay et al[31]	North London, UK	-9.80 (-16.60, -3.00)	8.57
Sharp et al[33]	South London, UK	-6.60 (-11.89, -1.31)	12.04
Subtotal (I-squared = 13.9%, p = 0.323)		-5.81 (-8.81, -2.81)	44.76
.			
school-aged child			
Kurstjens et al[20]	Germany	-1.30 (-4.99, 2.39)	17.67
Evans et al[30]	Avon, UK	-2.36 (-3.65, -1.07)	28.91
Hay et al[19]	South London, UK	-9.44 (-16.20, -2.68)	8.65
Subtotal (I-squared = 55.6%, p = 0.105)		-3.07 (-6.05, -0.09)	55.24
.			
Overall (I-squared = 51.9%, p = 0.052)		-4.38 (-6.71, -2.05)	100.00

NOTE: Weights are from random effects analysis

-10   -4.38   0   5   10
decreased   increased

Abbreviations: IQ=intelligence quotient, WMD=weighted mean difference

eFigure 4: Associations between maternal postnatal depression and full IQ among children: subgroup analysis based on study quality
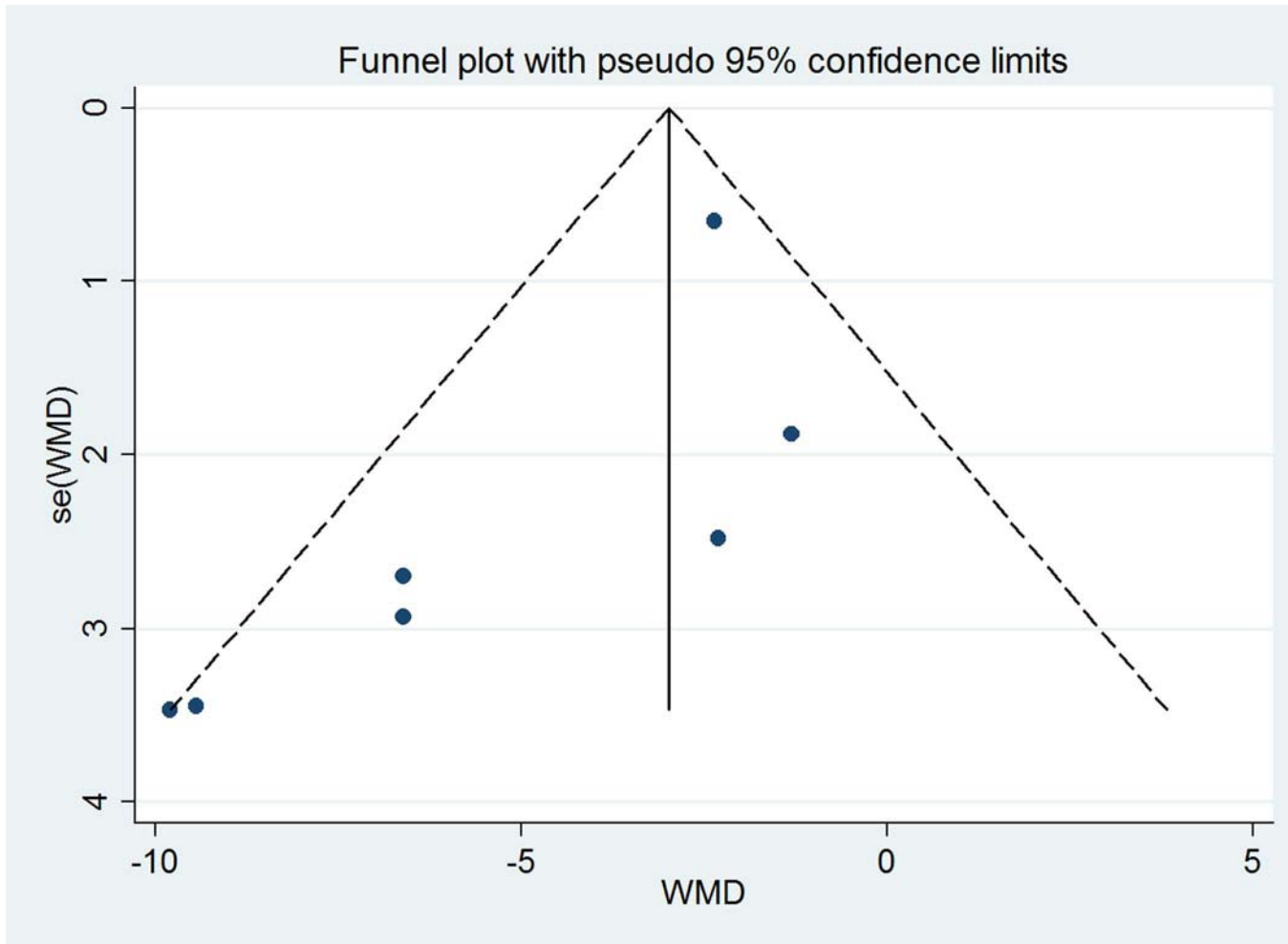

Abbreviations: IQ=intelligence quotient, WMD=weighted mean difference

eFigure 5: Associations between maternal postnatal depression and full IQ among children: subgroup analysis based on diagnostic method of postnatal depression
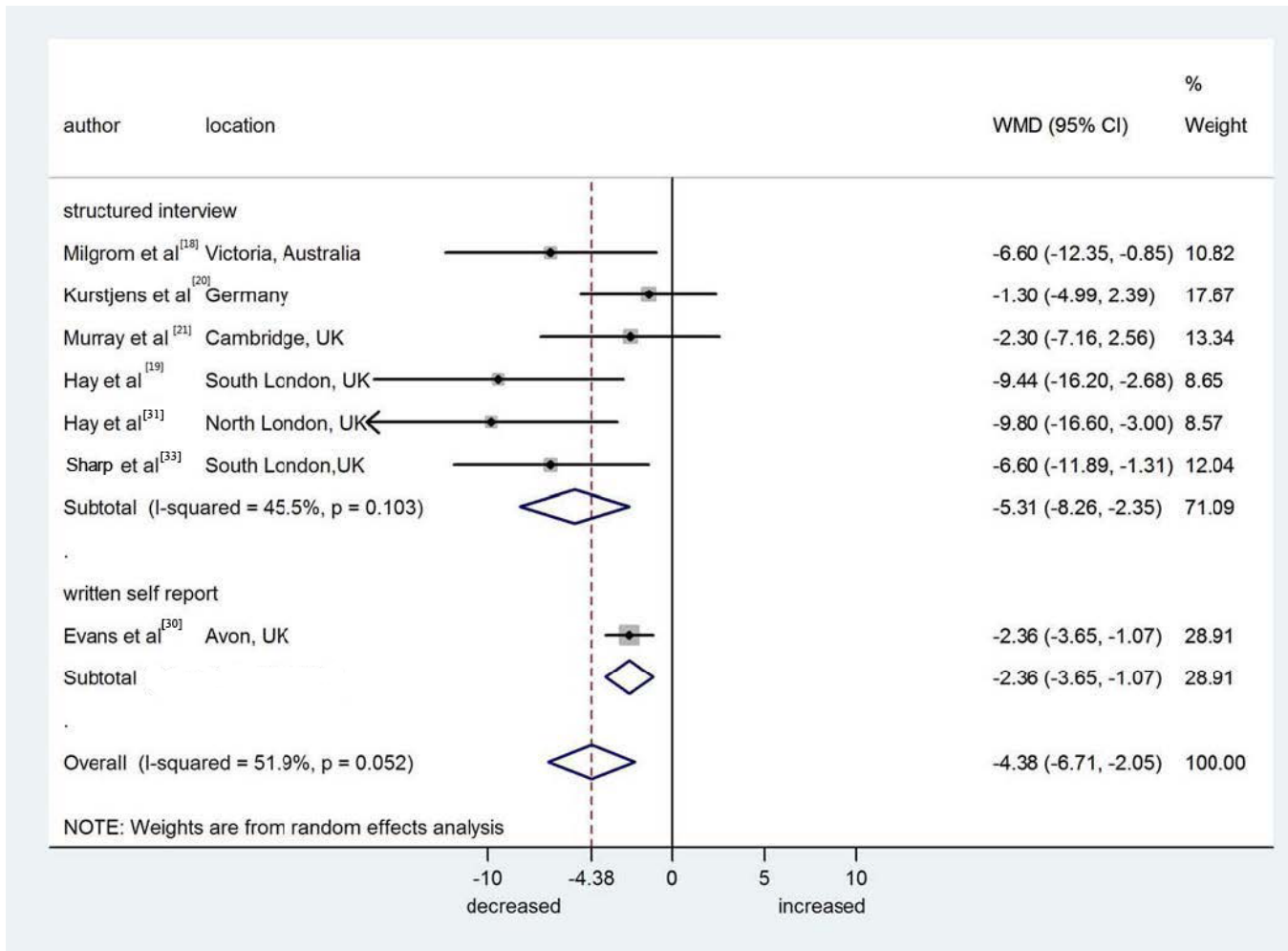
Abbreviations: IQ=intelligence quotient, WMD=weighted mean difference

eFigure 6: Funnel plot for eligible studies in full IQ

Abbreviations: IQ=intelligence quotient, WMD=weighted mean difference