Supplement: integral content

Cognitive-behavioral weight loss interventions, weight reduction, and psychological outcomes: A meta-analysis

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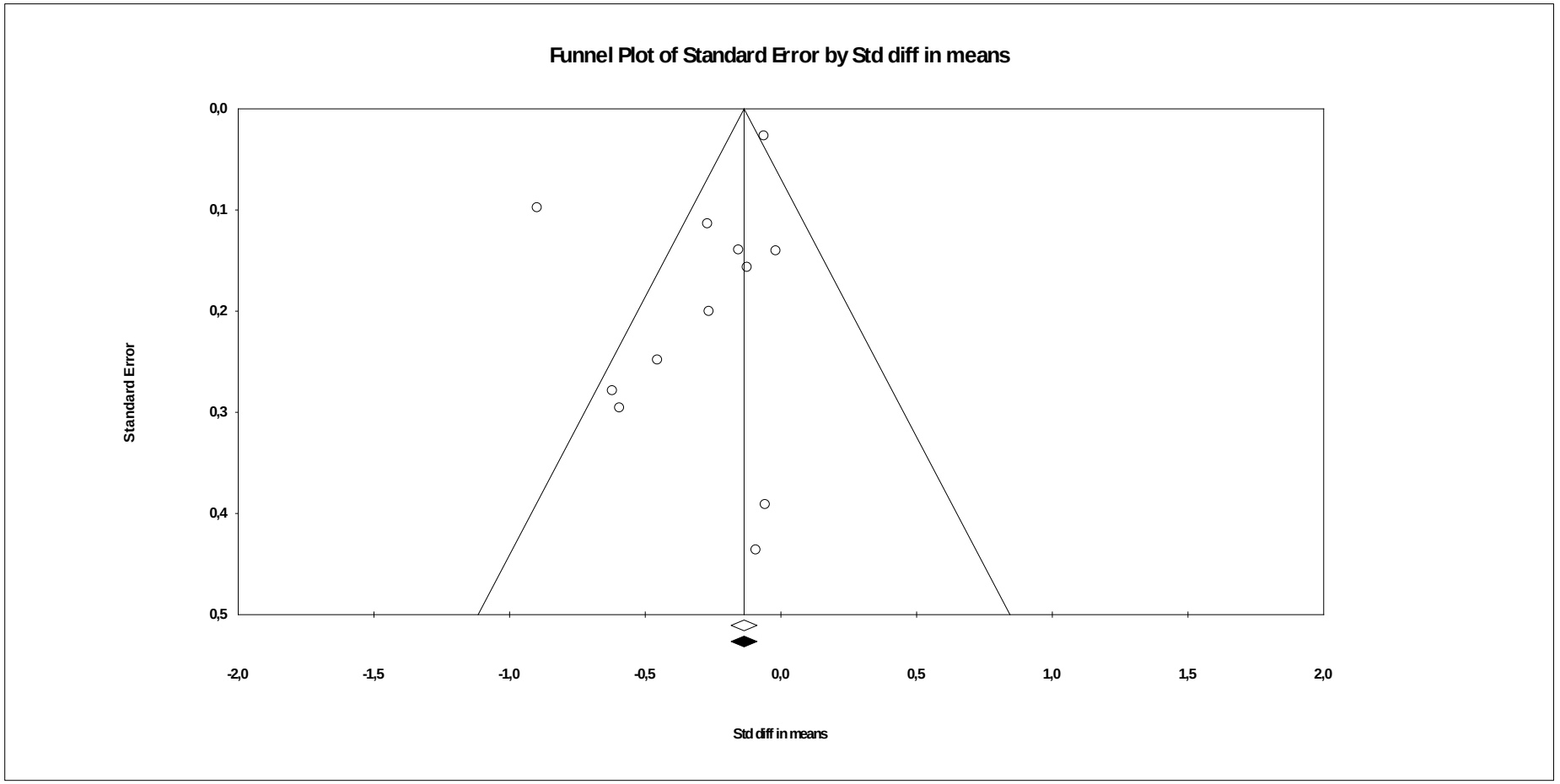
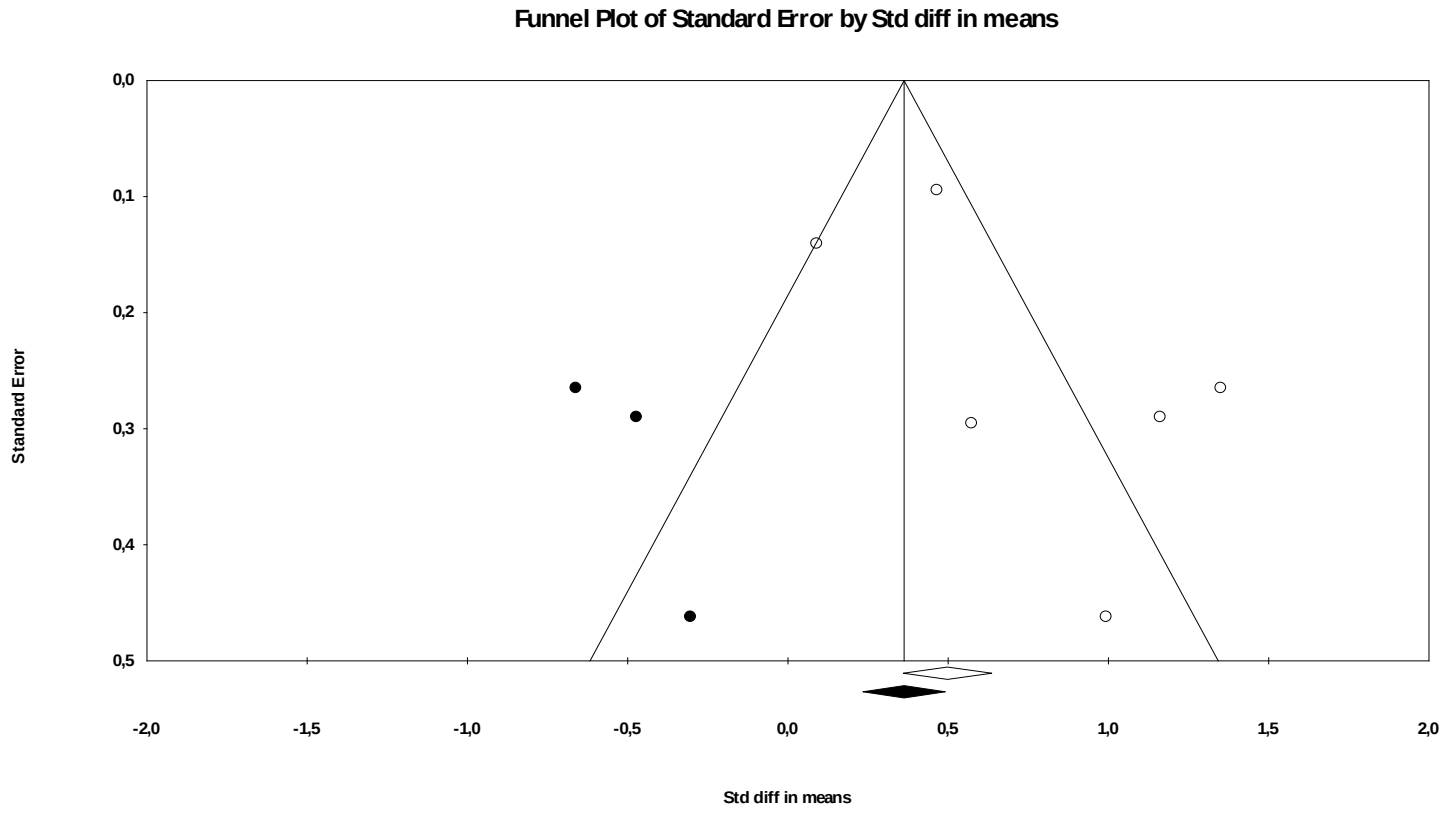
FigureS1: publication bias for standardized mean differences for weight



Legend: vertical axis : standard error. Horizontal axis : standardized differences in means
Interpretation : No publication bias was noted by the Duvall and Tweedie's trim and fill test for weight. However, when looking at the funnel plot, we could suspect a publication bias as the points in funnel plot are asymmetrical, specially at the bottom of the plot (as the standard error increases), because studies with less precise effect estimates scatter more at the bottom of the funnel plot. No publication bias is found when effects estimates points scatter uniformly around the total overall effect (represented by the vertical line in the middle of the figure). For further details on publication bias, see Sedgwick, P. (2013). BMJ2013;346:f1342doi:10.1136/bmj.f1342

FigureS2 : publication bias for standardized mean differences for cognitive restraint



Legend: vertical axis : standard error. Horizontal axis : standardized differences in means.
Interpretation : A publication bias was found for cognitive restraint. When looking at the figure, the empty points in funnel plot are asymmetrical specially at the bottom of the plot (as the standard error increases). The Duvall and Tweedie's trim and fill test was used to impute the three studies that were missing on the left of the funnel plot (full points).

Figure S3: Metaregression for changes in cognitive restraint by therapy type

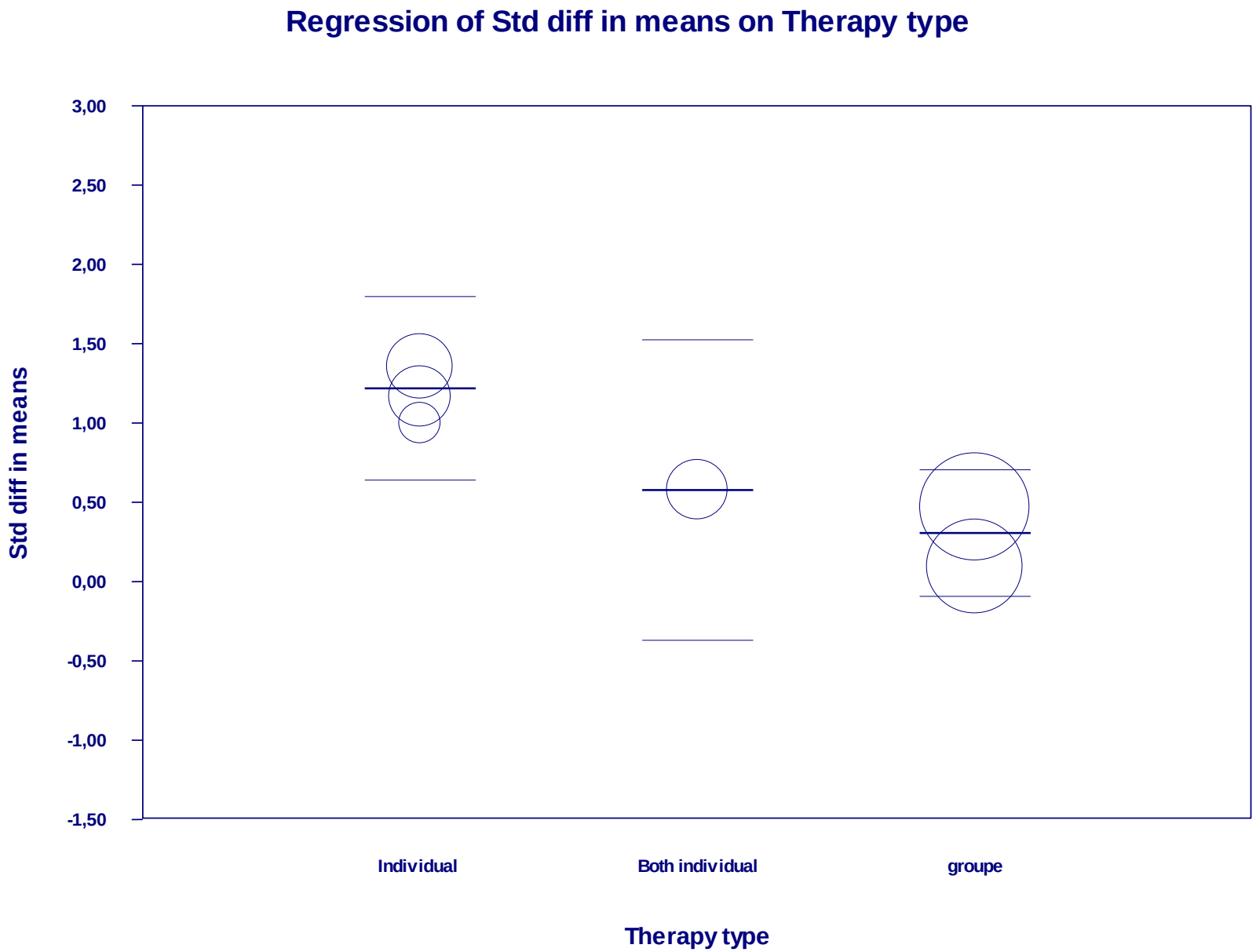
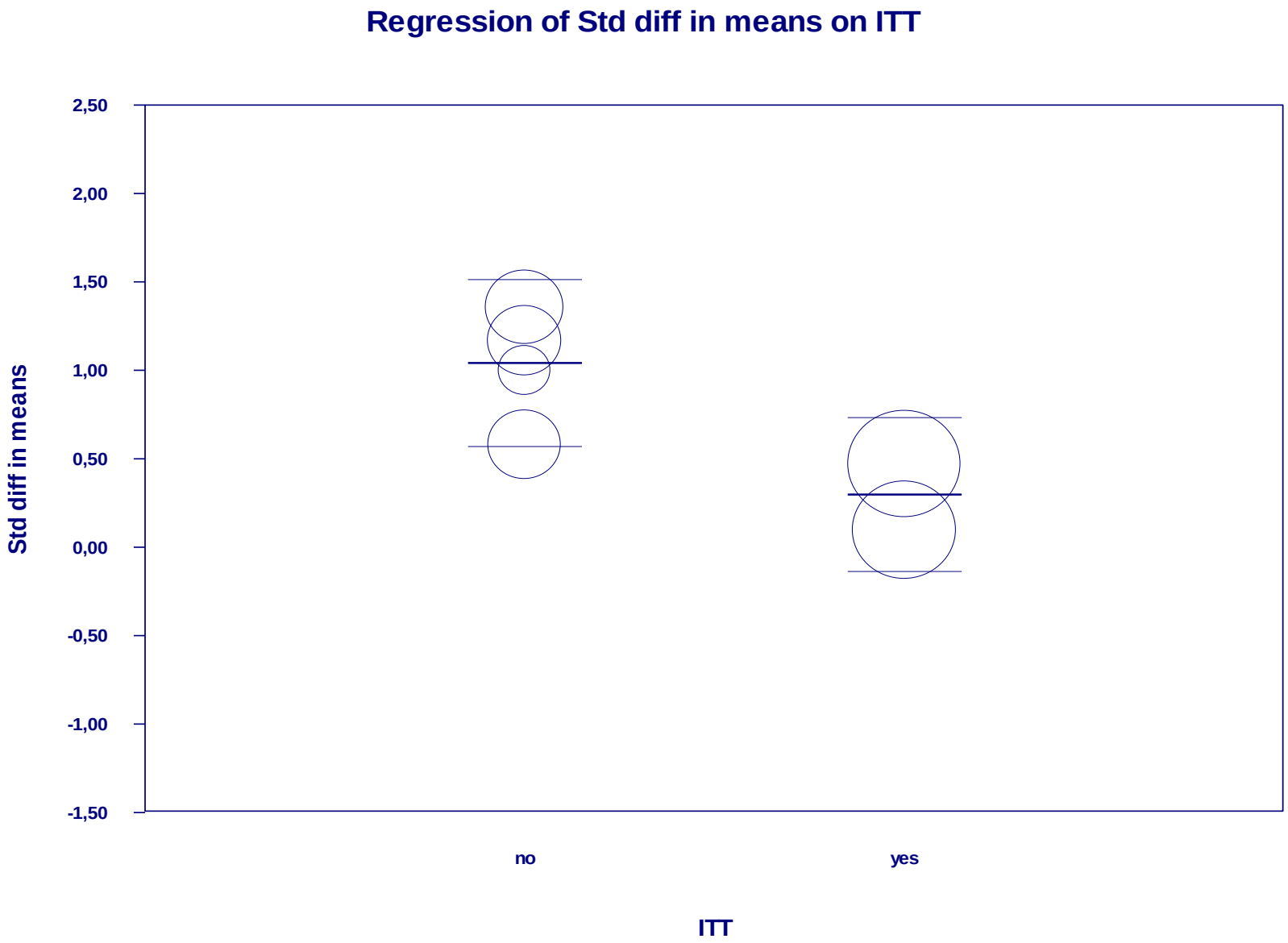
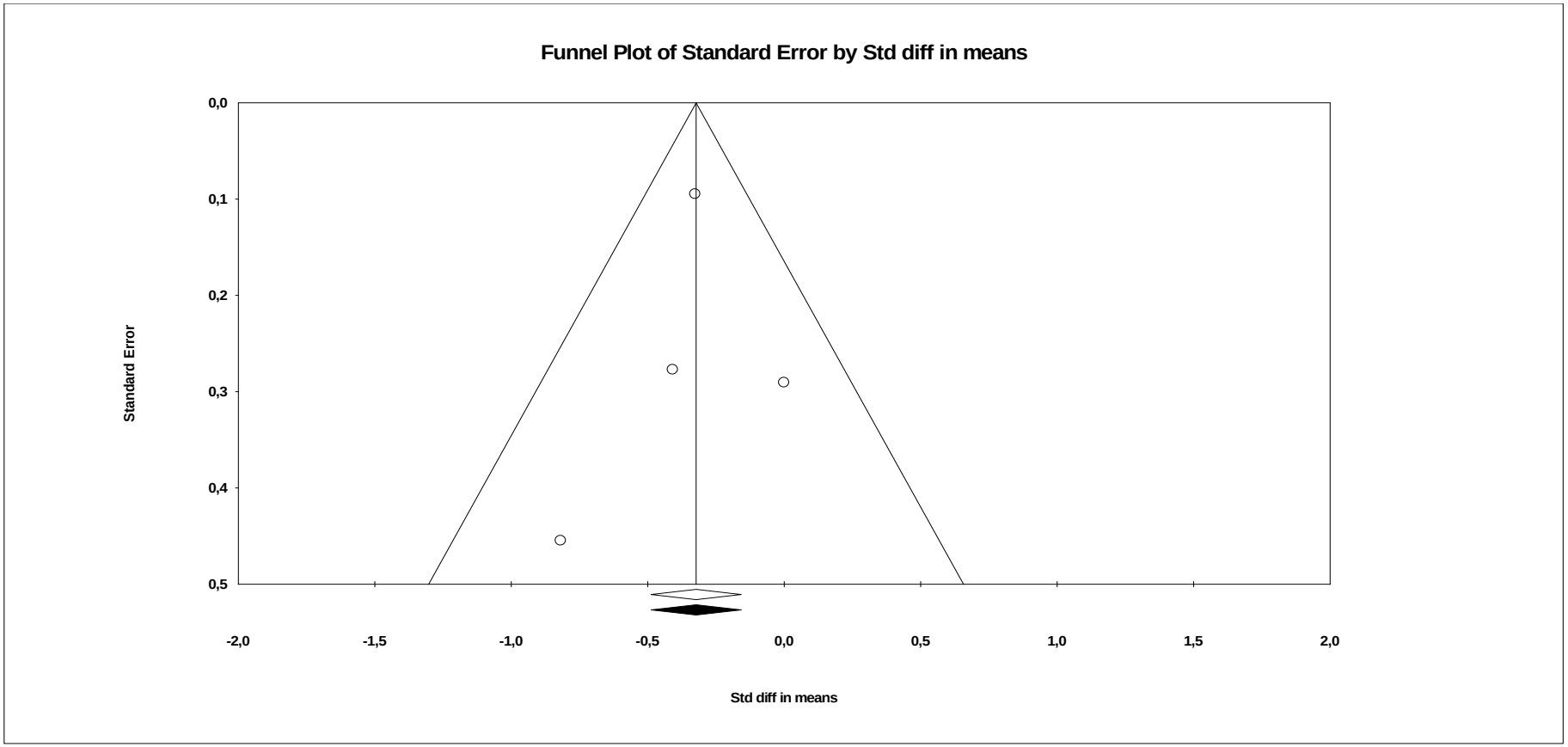


Figure S4: Change in cognitive restraint estimates by intent-to-treat or not analysis

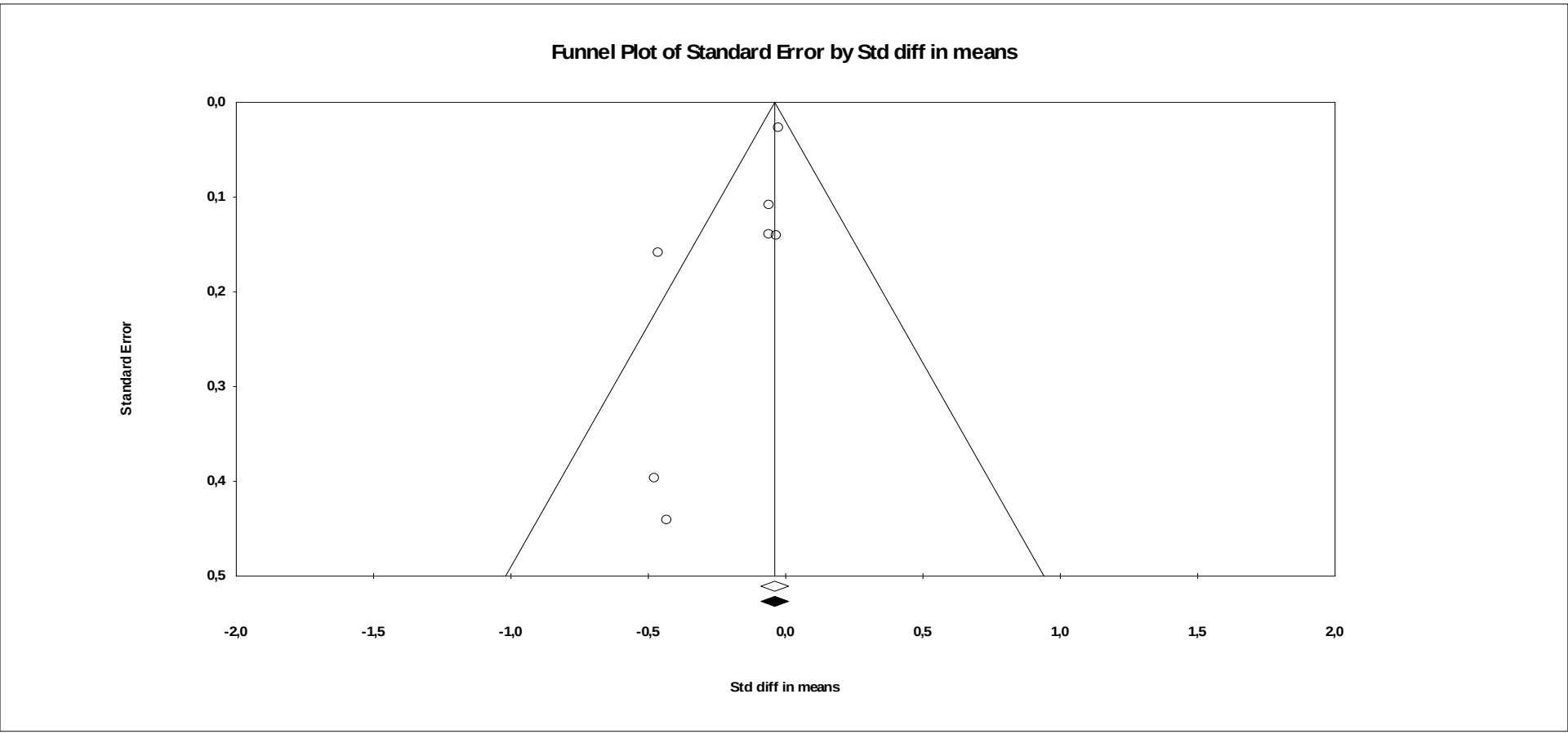


FigureS5: publication bias for standardized mean differences for emotional eating



Legend: vertical axis : standard error. Horizontal axis : standardized differences in means.
Interpretation : No publication bias was noted by the Duvall and Tweedie's trim and fill test for emotional eating. However, when examining the figure, we observe an asymmetry suggesting a possible publication bias which could not have been detected with the trim and fill test due to a power issue (only 4 studies were included).

FigureS6: publication bias for standardized mean differences for depression



Legend: vertical axis : standard error. Horizontal axis : standardized differences in means.
Interpretation : No publication bias was noted by the Duvall and Tweedie's trim and fill test for depressive symptoms. However, when examining the figure, we observe an asymmetry suggesting a possible publication bias which could not have been detected with the trim and fill test.

Figure S7 : metaregression for the quality of reporting on weight estimates

Figure S8: metaregression for the quality of reporting on cognitive restraint estimates

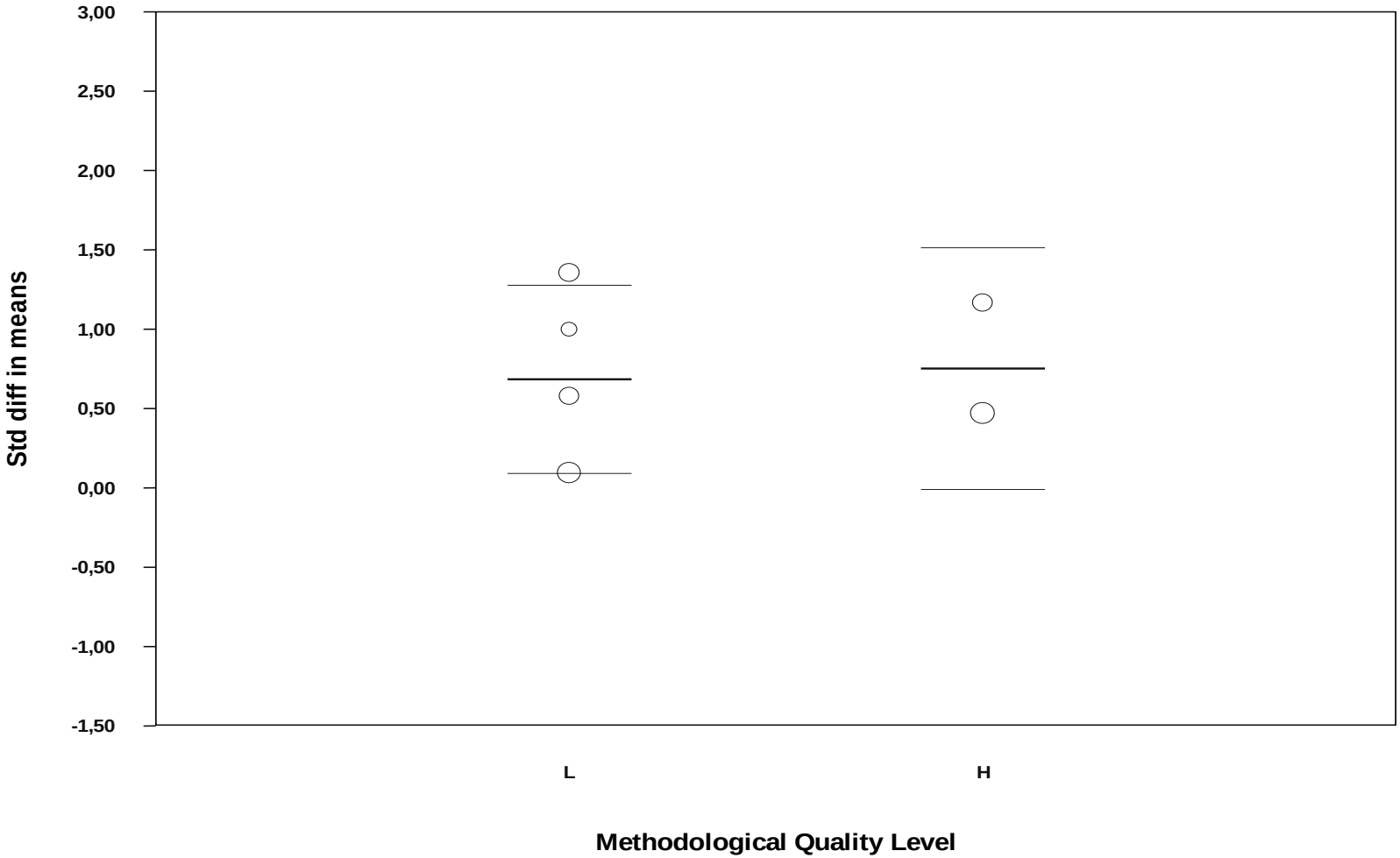


Figure S9: metaregression for the quality of reporting on emotional eating estimates

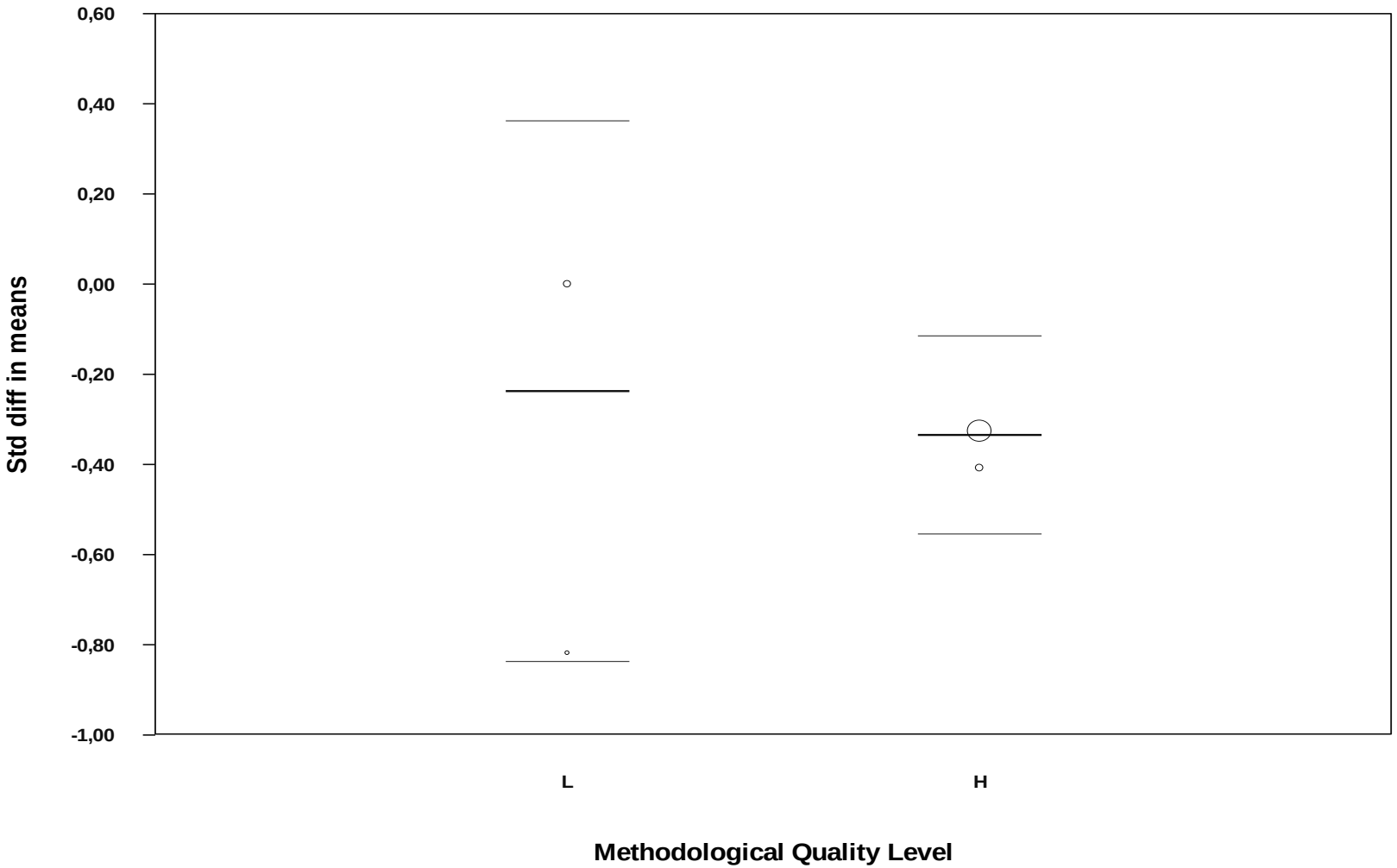


Figure S10: metaregression for the quality of reporting on depressive symptoms estimates

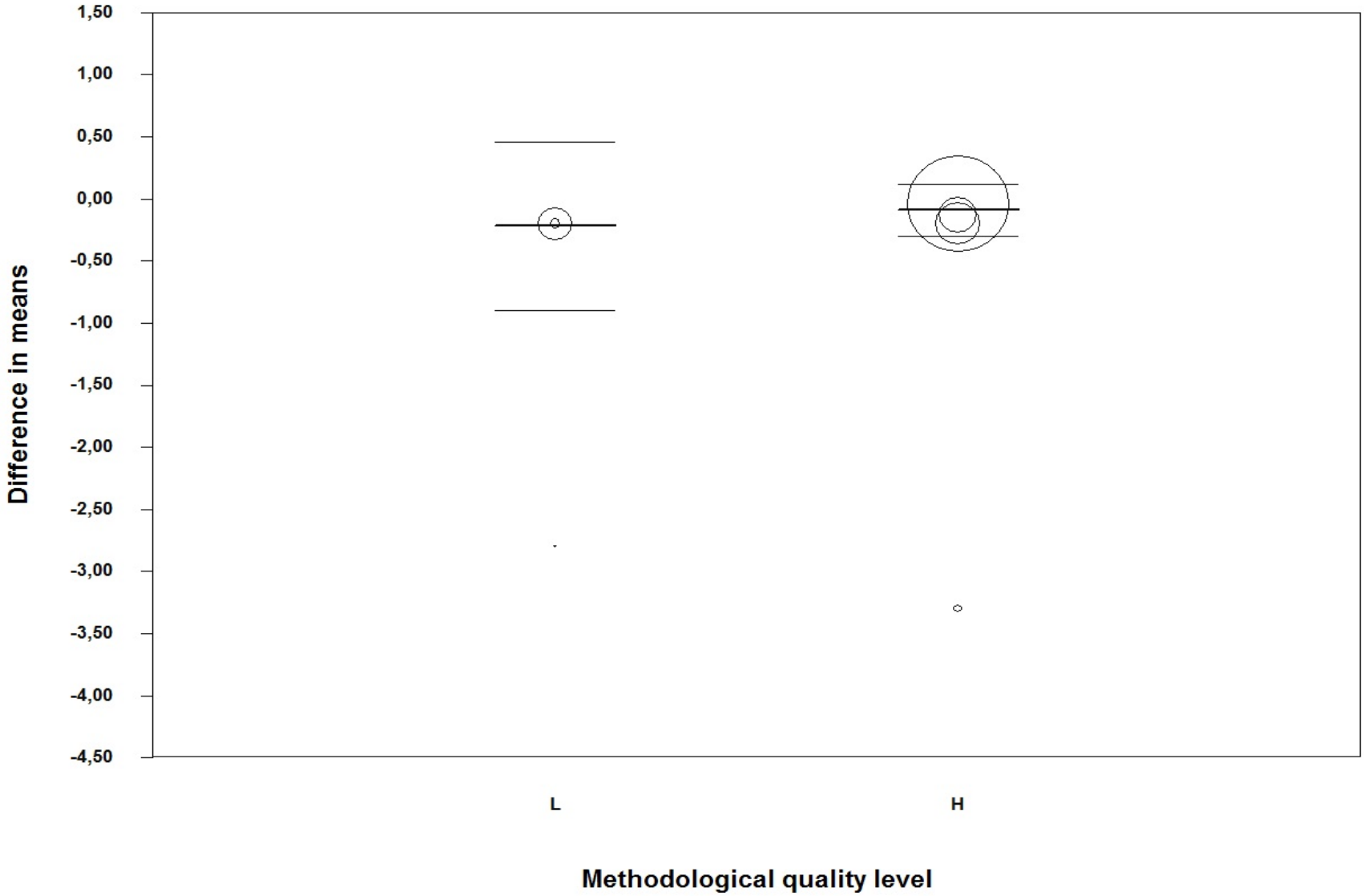


Figure S11: sensitivity analysis on standardized weight estimates

Subgroup within study	Comparison	Study name	Outcome	Statistics with study removed			
				Point	Lower limit	Upper limit	p-Value
OVERALL	A	Ames et al., 2005	Weight (kg)	-0,311	-0,528	-0,094	0,005
OVERALL	A	Batra et al., 2013	Weight (kg)	-0,287	-0,507	-0,067	0,011
OVERALL	Combined	Cooper, et al., 2010	Weight (kg)	-0,303	-0,527	-0,078	0,008
OVERALL	A	Keränen, et al., 2009	Combined	-0,279	-0,496	-0,063	0,012
OVERALL	A	Linde et al., 2011	Weight (kg)	-0,315	-0,548	-0,083	0,008
OVERALL	A	Nurkkala et al., 2015	Weight (kg)	-0,276	-0,493	-0,060	0,012
OVERALL	A	Pagoto et al., 2013	Weight (kg)	-0,318	-0,548	-0,088	0,007
OVERALL	A	Pimenta, et al., 2012	Weight (kg)	-0,308	-0,524	-0,092	0,005
OVERALL	A	Rubin et al., 2014	Weight (kg)	-0,331	-0,557	-0,105	0,004
OVERALL	Combined	Swencionis et al., 2013	Weight (kg)	-0,303	-0,541	-0,066	0,012
OVERALL	A	Teixeira et al., 2010	% weight loss	-0,158	-0,261	-0,056	0,002
OVERALL	A	Werrij et al., 2009	Weight (kg)	-0,330	-0,562	-0,099	0,005
				-0,299	-0,508	-0,089	0,005

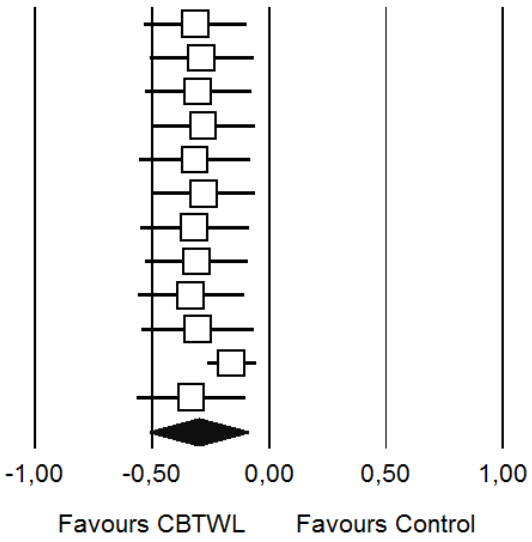


Figure S12: sensitivity analysis raw weight estimates

Subgroup within study	Comparison	Study name	Outcome	Statistics with study removed			
				Point	Lower limit	Upper limit	p-Value
OVERALL	A	Keränen, et al., 2009	Weight (kg)	-1,560	-2,433	-0,687	0,000
OVERALL	A	Pimenta, et al., 2012	Weight (kg)	-1,718	-2,546	-0,889	0,000
OVERALL	Combined	Swencionis et al., 2013	Weight (kg)	-1,643	-2,615	-0,670	0,001
OVERALL	Combined	Cooper, et al., 2010	Weight (kg)	-1,633	-2,466	-0,801	0,000
OVERALL	A	Werrij et al., 2009	Weight (kg)	-1,746	-2,580	-0,912	0,000
OVERALL	A	Batra et al., 2013	Weight (kg)	-1,641	-2,461	-0,820	0,000
OVERALL	A	Nurkkala et al., 2015	Weight (kg)	-1,603	-2,426	-0,780	0,000
OVERALL	A	Ames et al., 2005	Weight (kg)	-1,694	-2,514	-0,873	0,000
OVERALL	A	Linde et al., 2011	Weight (kg)	-1,862	-2,778	-0,946	0,000
OVERALL	A	Pagoto et al., 2013	Weight (kg)	-1,944	-2,862	-1,026	0,000
OVERALL	A	Rubin et al., 2014	Weight (kg)	-1,570	-2,411	-0,730	0,000
				-1,687	-2,505	-0,869	0,000

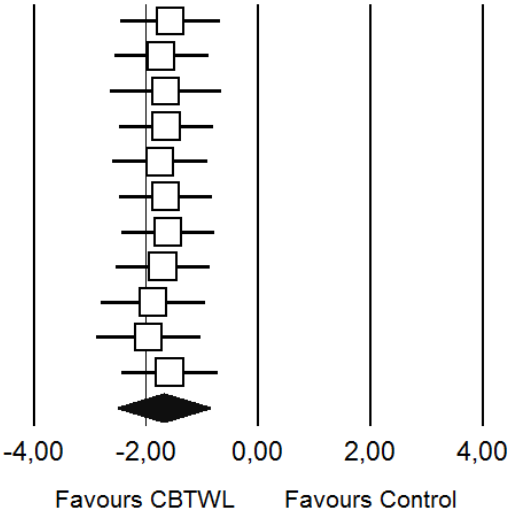


Figure S13: sensitivity analysis on depressive symptoms estimates

Subgroup within study	Comparison	Study name	Outcome	Statistics with study removed			
				Point	Lower limit	Upper limit	p-Value
OVERALL	A	Pimenta, et al., 2012	Depression	-0,093	-0,215	0,028	0,130
OVERALL	Combined	Swencionis et al., 2013	Depression	-0,129	-0,286	0,029	0,110
OVERALL	A	Werrij et al., 2009	Depression	-0,123	-0,269	0,022	0,096
OVERALL	A	Ames et al., 2005	Depression	-0,088	-0,206	0,029	0,140
OVERALL	A	Linde et al., 2011	Depression	-0,119	-0,265	0,026	0,108
OVERALL	A	Pagoto et al., 2013	Depression	-0,029	-0,079	0,022	0,272
OVERALL	A	Rubin et al., 2014	Depression	-0,153	-0,311	0,005	0,057
				-0,097	-0,215	0,020	0,103