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## **Effectiveness of physical activity interventions in achieving behaviour change maintenance in young and middle aged adults: a systematic review and meta-analysis**

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Supplementary file 4: Forest and funnel plots

Table 1: Pooled effect sizes, confidence intervals and I-squared values

Analysis	Comparisons	Effect size (95% CI) <sup>a</sup>	I-squared
<b>Continuous outcomes</b>			
6-9 months (corr. 0.7)	43	0.28 (0.20, 0.35)	73% <sup>†</sup>
9-15 months (corr. 0.5)	44	0.20 (0.13, 0.26)	70% <sup>†</sup>
15-21 months (corr. 0.5)	5	0.04 (-0.02, 0.10)	0%
21-24 months (corr. 0.3)	10	0.08 (0.01, 0.14)	57% <sup>†</sup>
>24 months (corr. 0.3)	5	0.04 (-0.05, 0.13)	0%
<b>Sensitivity analyses</b>			
Corr. 0.3	43	0.22 (0.16, 0.29)	59% <sup>†</sup>
Corr. 0.5	43	0.24 (0.17, 0.31)	65% <sup>†</sup>
ITT analysis	31	0.31 (0.22, 0.41)	77% <sup>†</sup>
No ITT analysis	12	0.18 (0.04, 0.32)	56% <sup>†</sup>
Attrition≤20%	27	0.29 (0.19, 0.38)	72% <sup>†</sup>
Attrition>20%	16	0.27 (0.12, 0.42)	77% <sup>†</sup>
Excluding outliers	40	0.22 (0.15, 0.28)	57% <sup>†</sup>
Alternative maintenance definition	14	0.18 (0.08, 0.27)	71% <sup>†</sup>
6-9 months post-intervention	9	0.24 (0.09, 0.40)	81% <sup>†</sup>
>9 months post-intervention	5	0.09 (0.01, 0.17)	0%
<b>Subgroup analyses</b>			
*Setting: Community	28	0.33 (0.24, 0.42)	63% <sup>†</sup>
Primary care	7	0.08 (-0.00, 0.17)	34%
Work/university	8	0.30 (-0.01, 0.61)	84% <sup>†</sup>
PA measure: Objective	7	0.50 (0.09, 0.91)	81% <sup>†</sup>
Self-report	36	0.24 (0.17, 0.32)	70% <sup>†</sup>
Mean age: ≤52.5 years	27	0.24 (0.14, 0.34)	73% <sup>†</sup>
>52.5 years	16	0.34 (0.21, 0.48)	72% <sup>†</sup>
Percent female: ≤64.1%	14	0.20 (0.10, 0.30)	35%
>64.1%	29	0.31 (0.21, 0.42)	80% <sup>†</sup>
Intervention duration: 0-3 months	12	0.30 (0.13, 0.46)	78% <sup>†</sup>
3-6 months	14	0.29 (0.18, 0.41)	64% <sup>†</sup>
>6 months	17	0.26 (0.11, 0.41)	75% <sup>†</sup>

<sup>a</sup>Effect sizes are standardised mean differences unless otherwise stated; \*Significant subgroup effect (P<0.01); <sup>†</sup>Chi-square test for heterogeneity significant (P<0.05).

CI: confidence interval; Corr.: Correlation coefficient; ITT: Intention-to-treat; N/A: Not applicable.

Figure 1: Forest Plot for studies reporting outcomes at 6-9 months

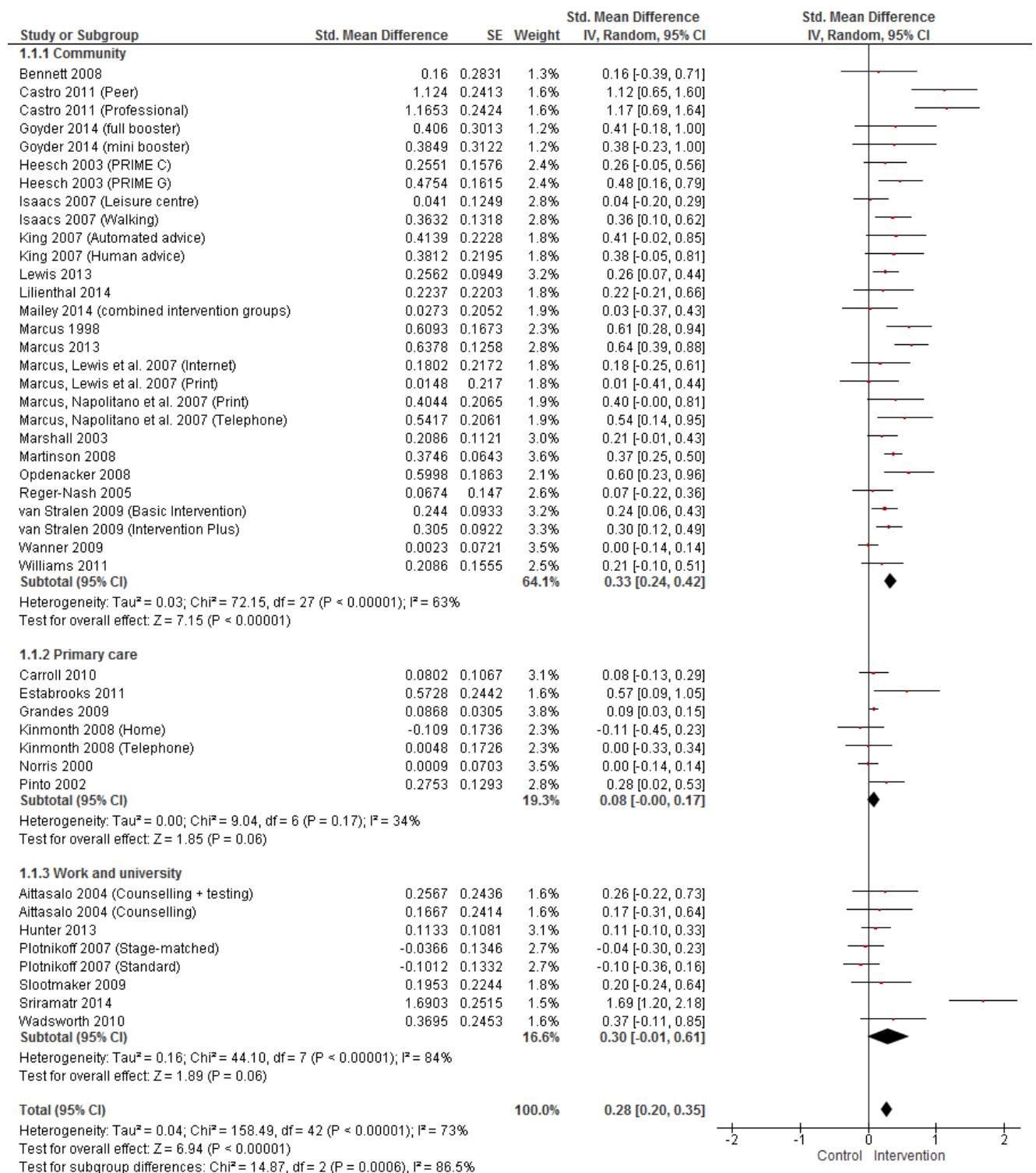


Figure 2: Funnel Plot for studies reporting outcomes at 6-9 months

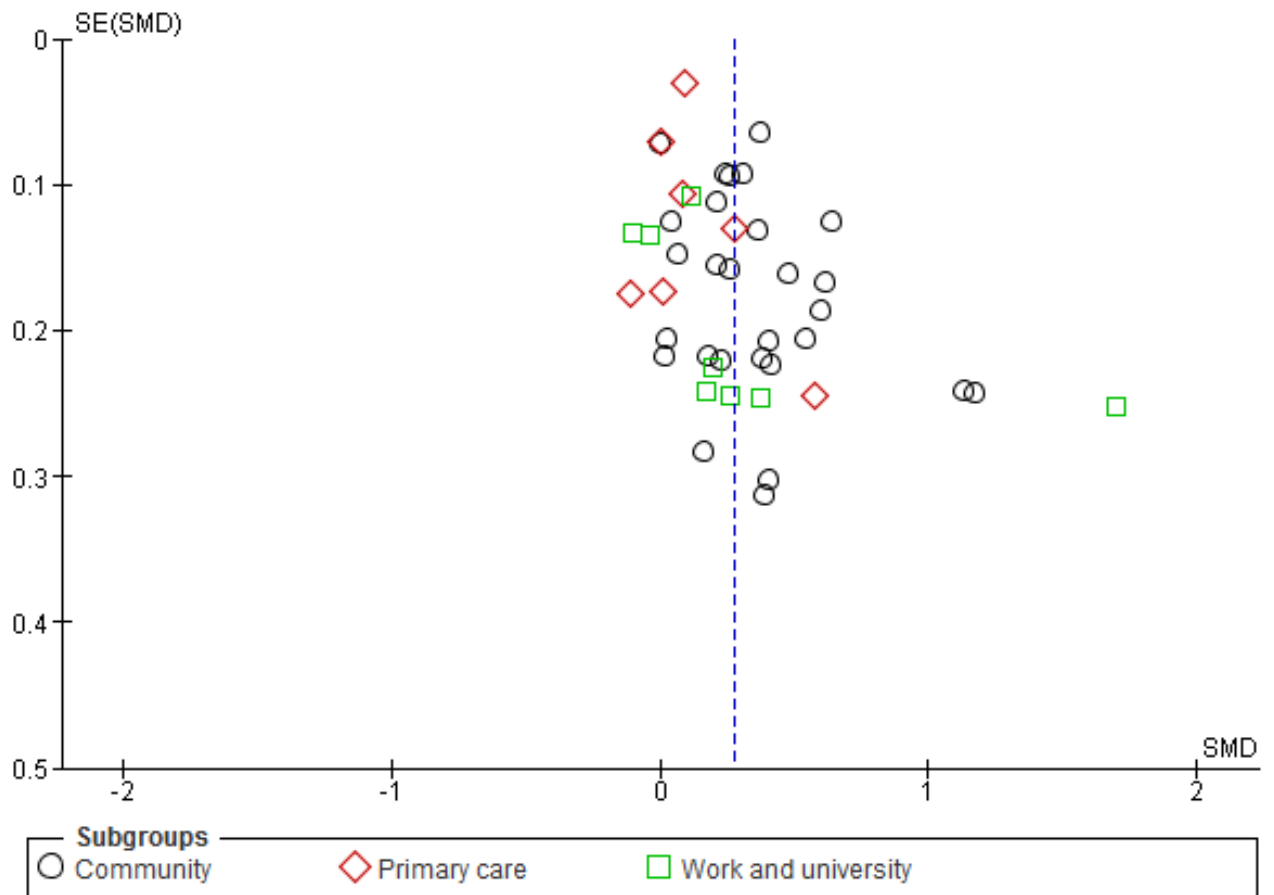


Figure 3: Forest Plot for studies reporting outcomes at 9-15 months

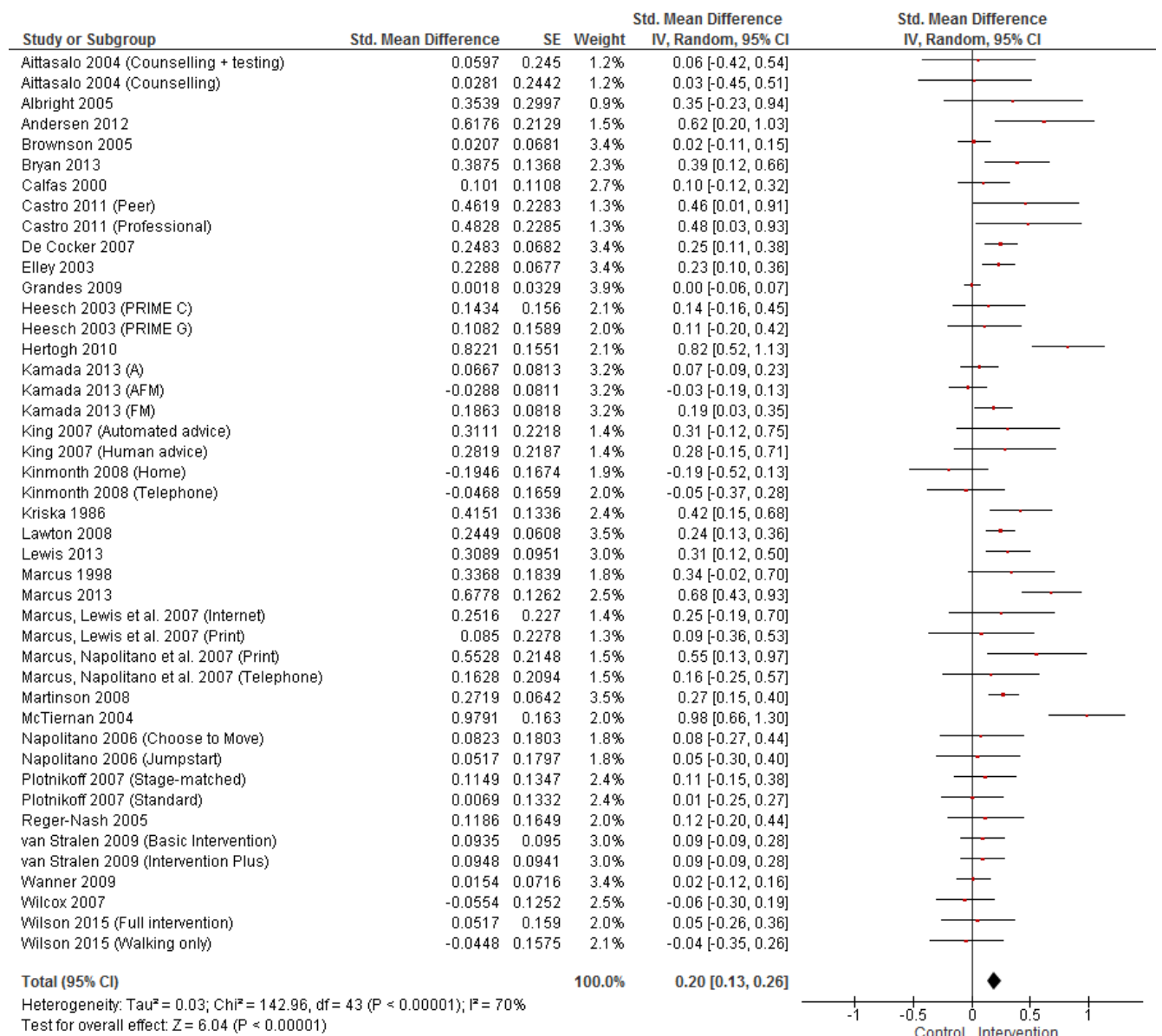


Figure 4: Forest plot for studies reporting outcomes at 15-21 months

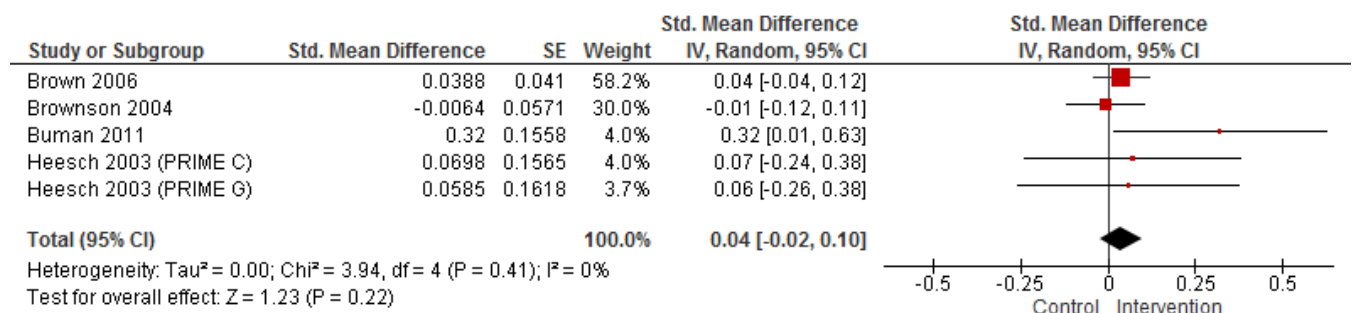


Figure 5: Forest plot for studies reporting outcomes at 21-24 months

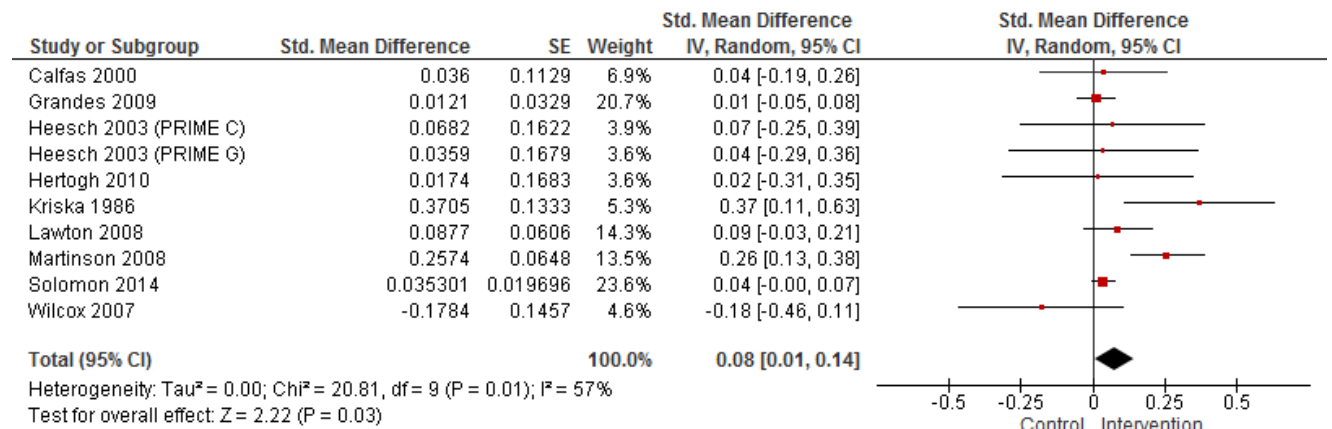


Figure 6: Forest plot for studies reporting outcomes at 24 months and later

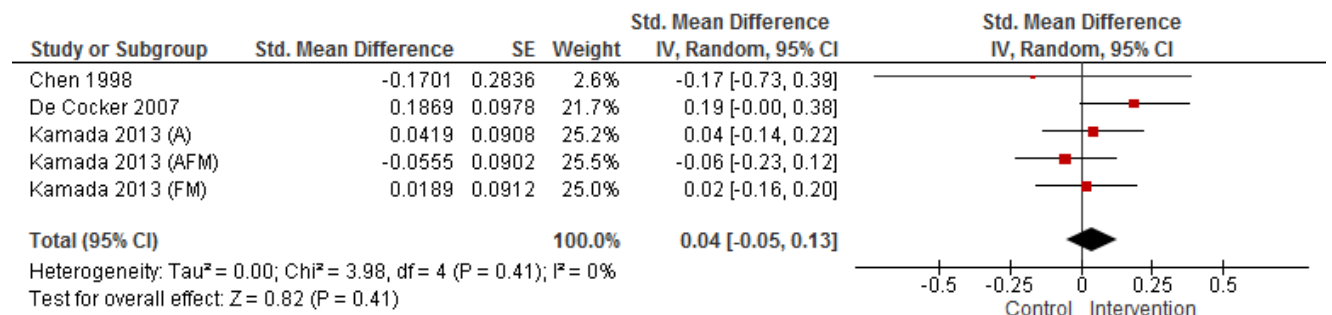


Figure 7: Forest Plot for studies reporting outcomes at 6-9 months (correlation 0.3)

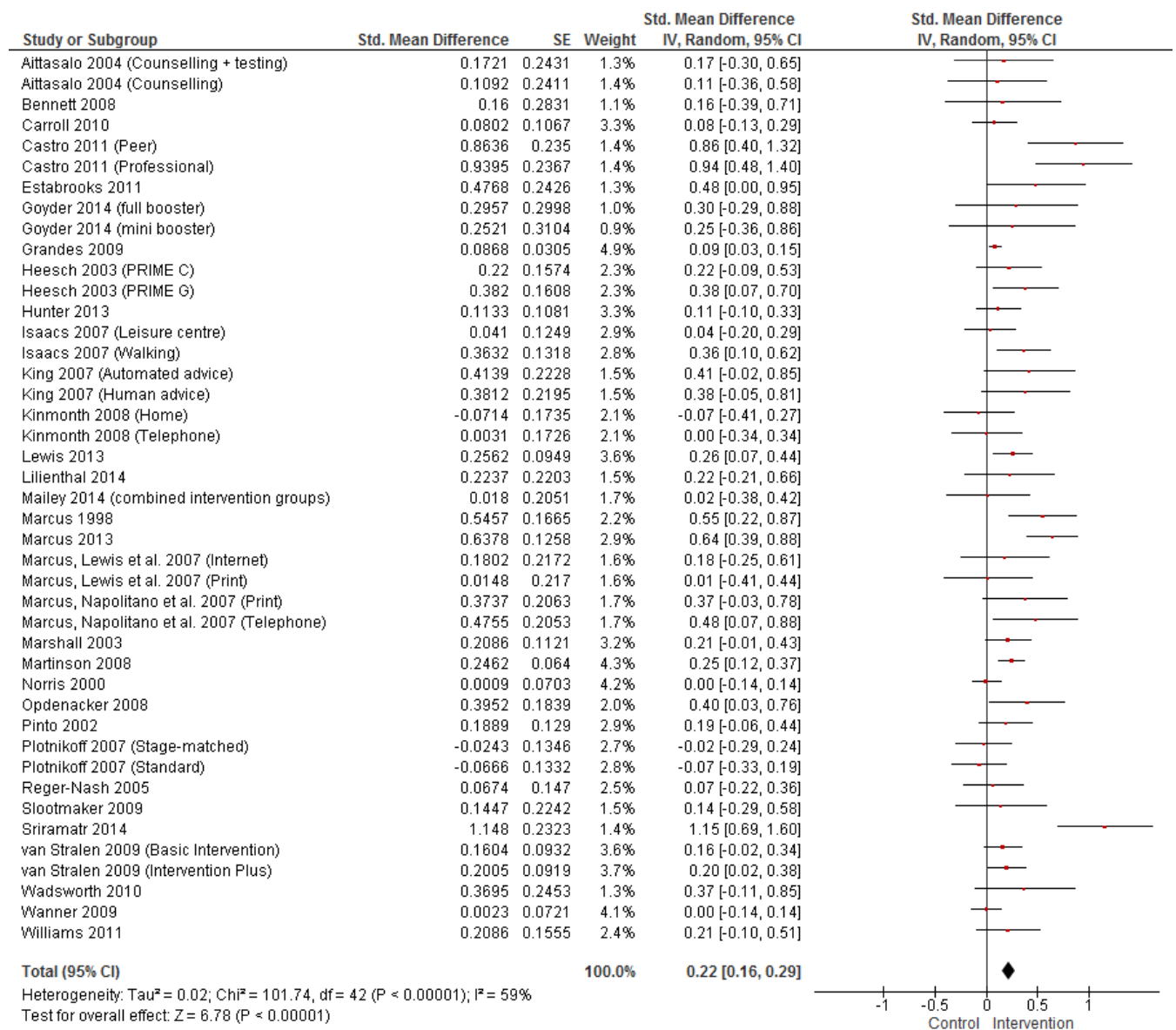


Figure 8: Forest Plot for studies reporting outcomes at 6-9 months (correlation 0.5)

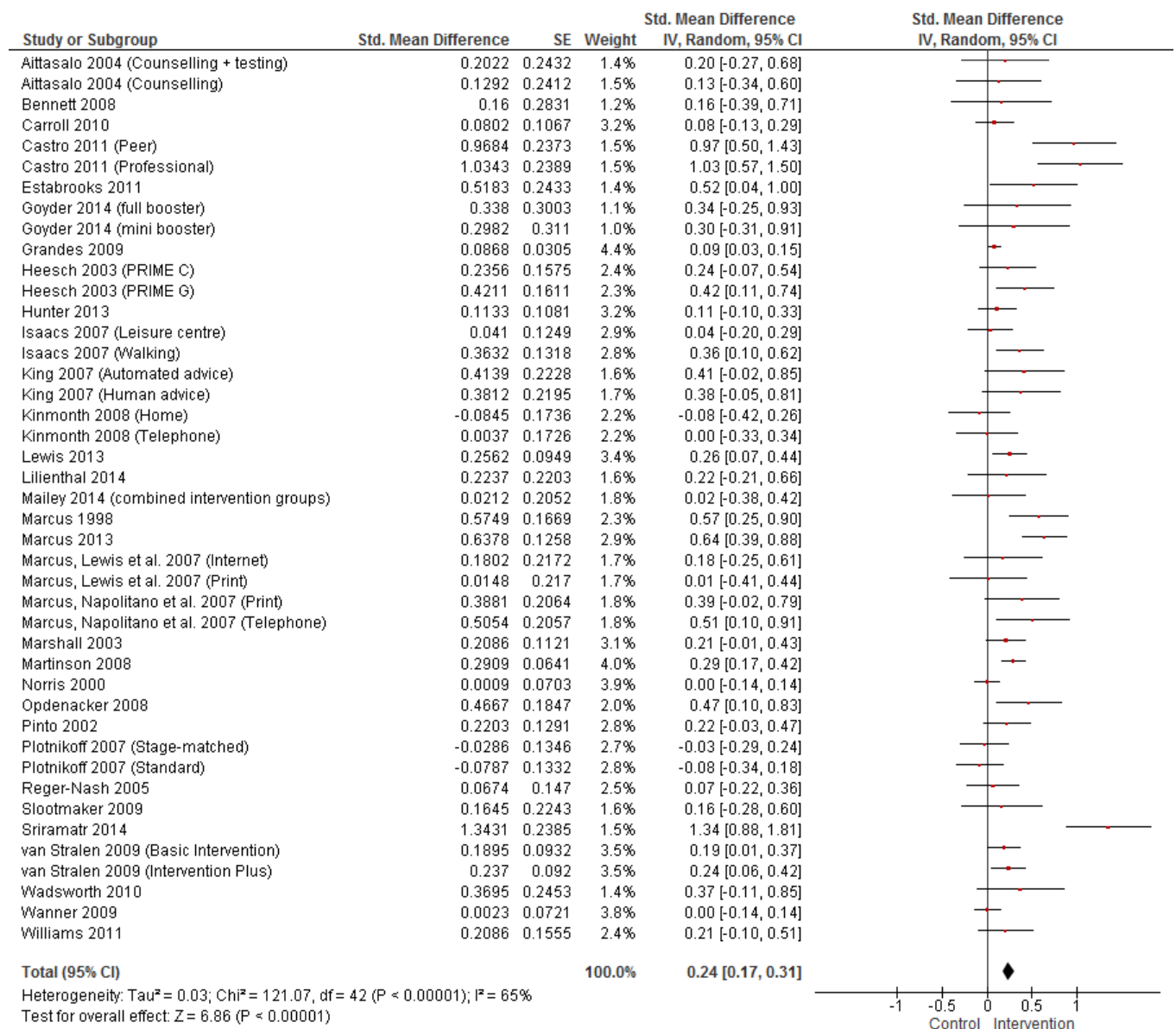




Figure 9: Forest plot for sensitivity analysis (intention-to-treat versus no intention-to-treat analysis)

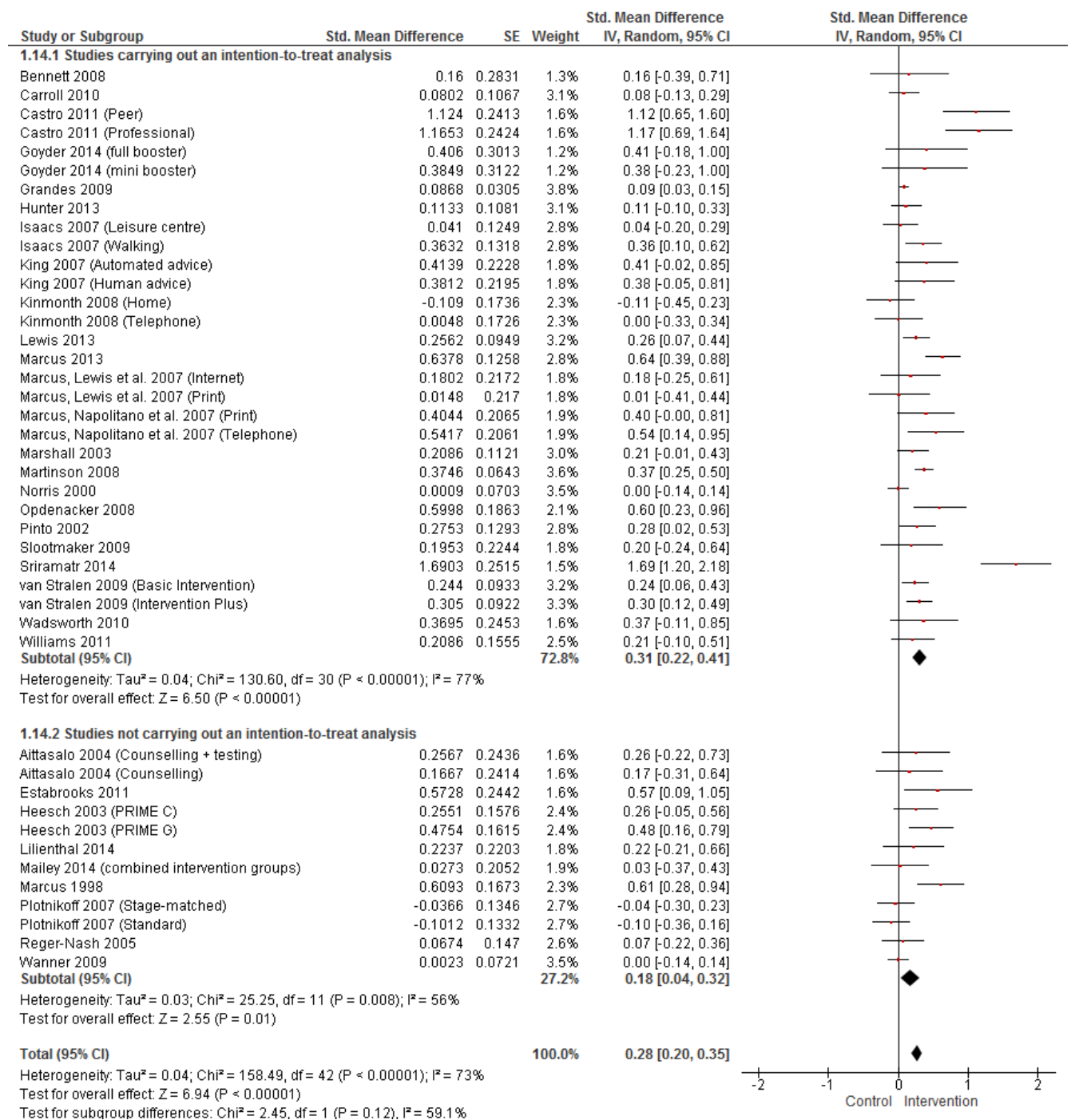


Figure 10: Forest plot for sensitivity analysis (attrition rate less than 20% versus attrition rate greater than 20%)

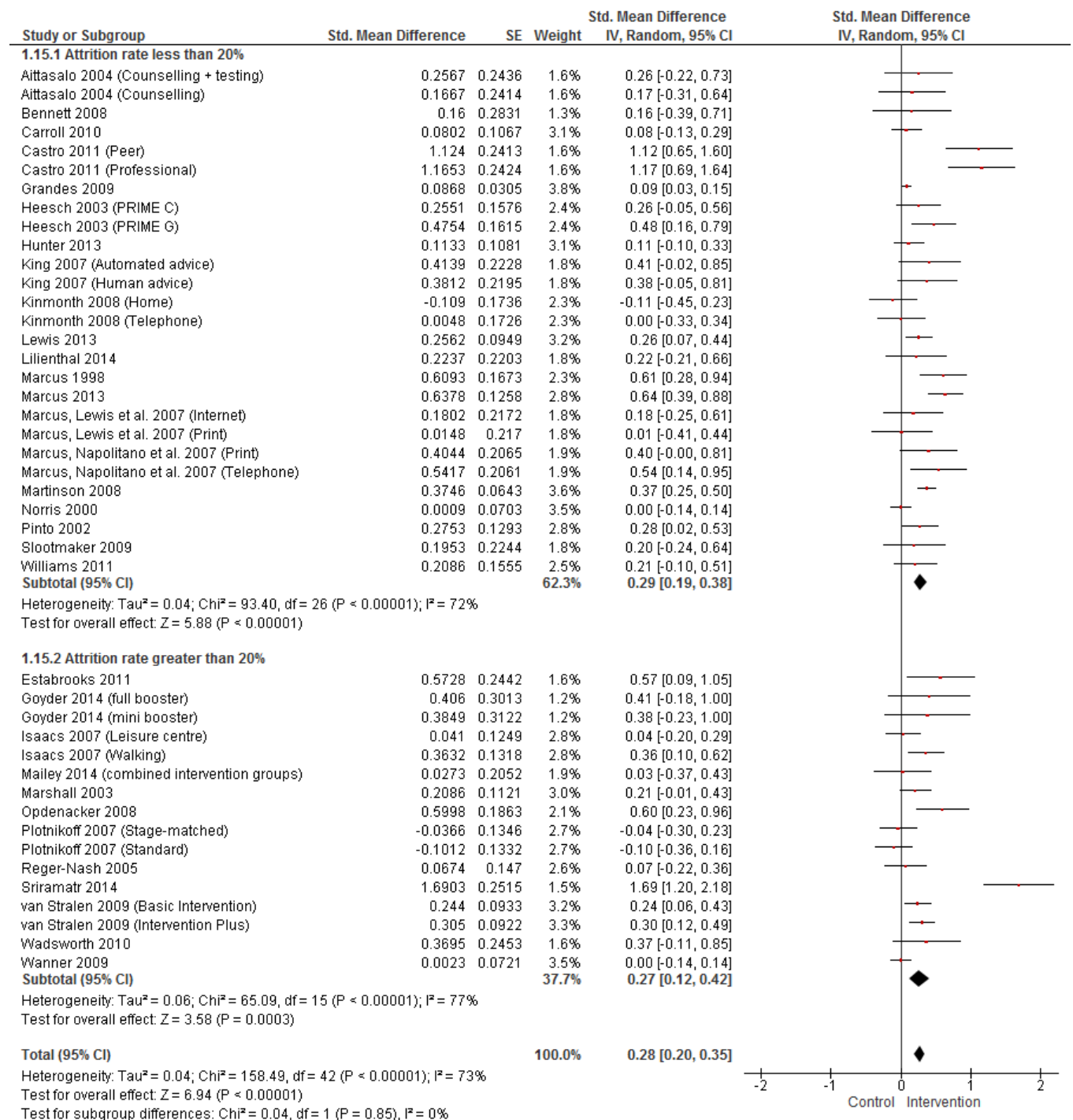


Figure 11: Forest plot for sensitivity analysis (excluding outlying studies)

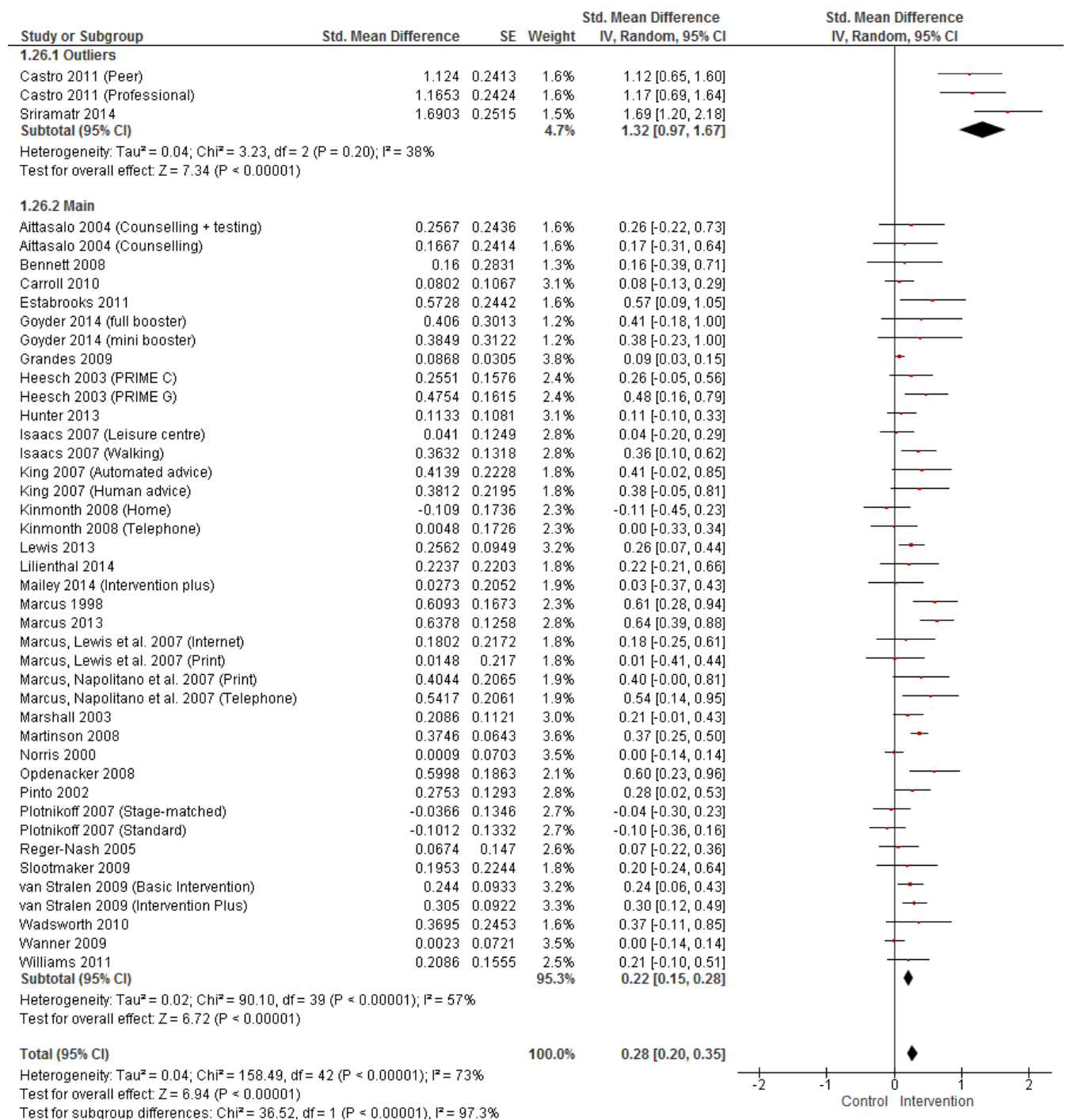


Figure 12: Forest plot for sensitivity analysis of the maintenance definition.

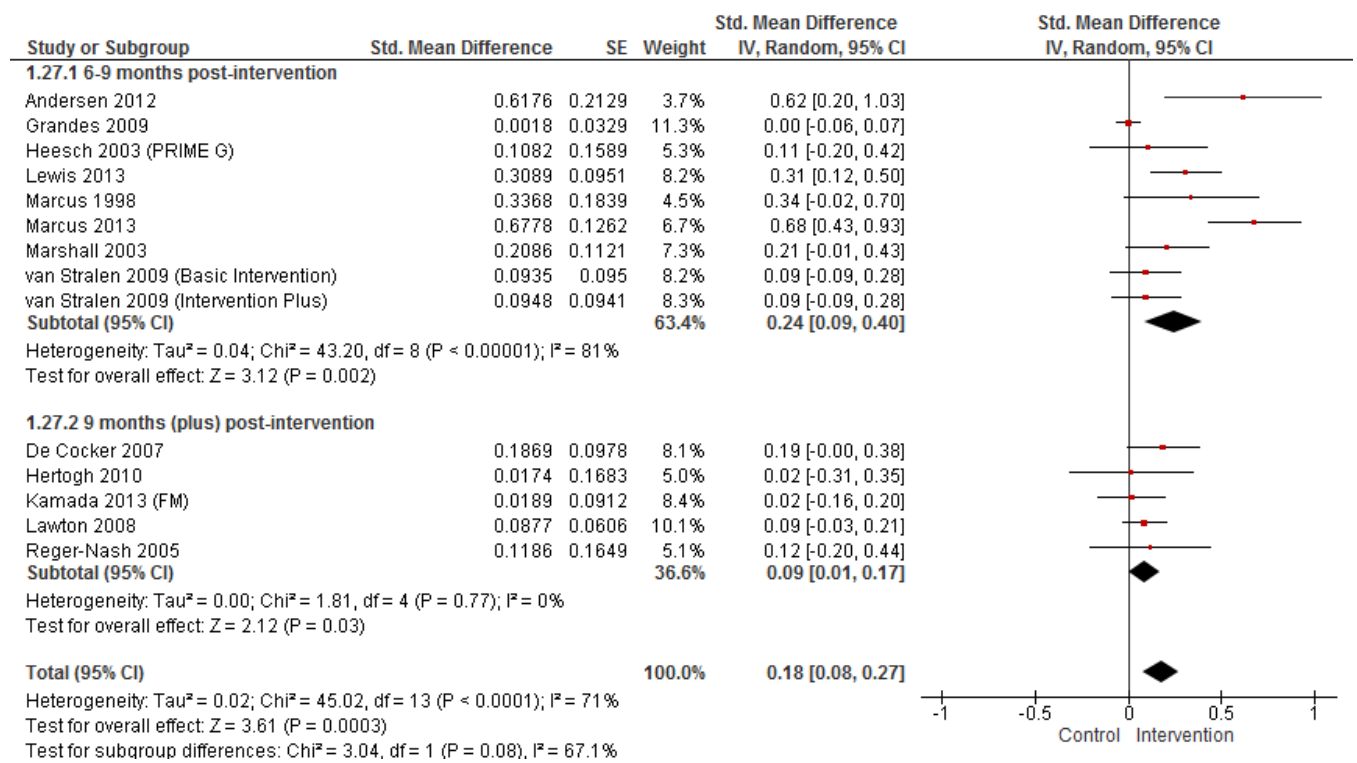


Figure 13: Forest plot for subgroup analysis (objective versus self-report PA measures)

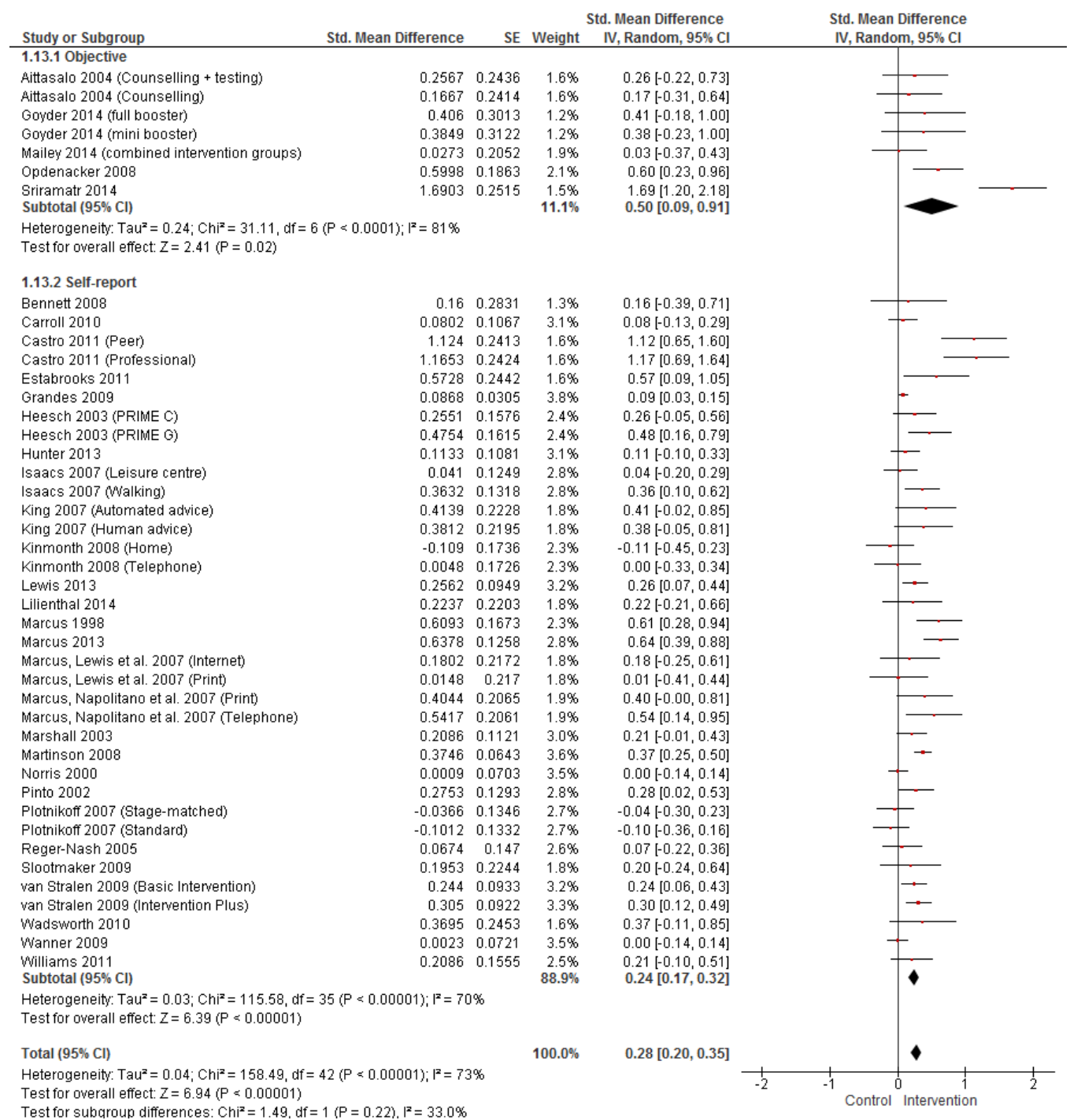


Figure 14: Forest plot for subgroup analysis (mean age less than 52.5 years versus mean age greater than 52.5 years)

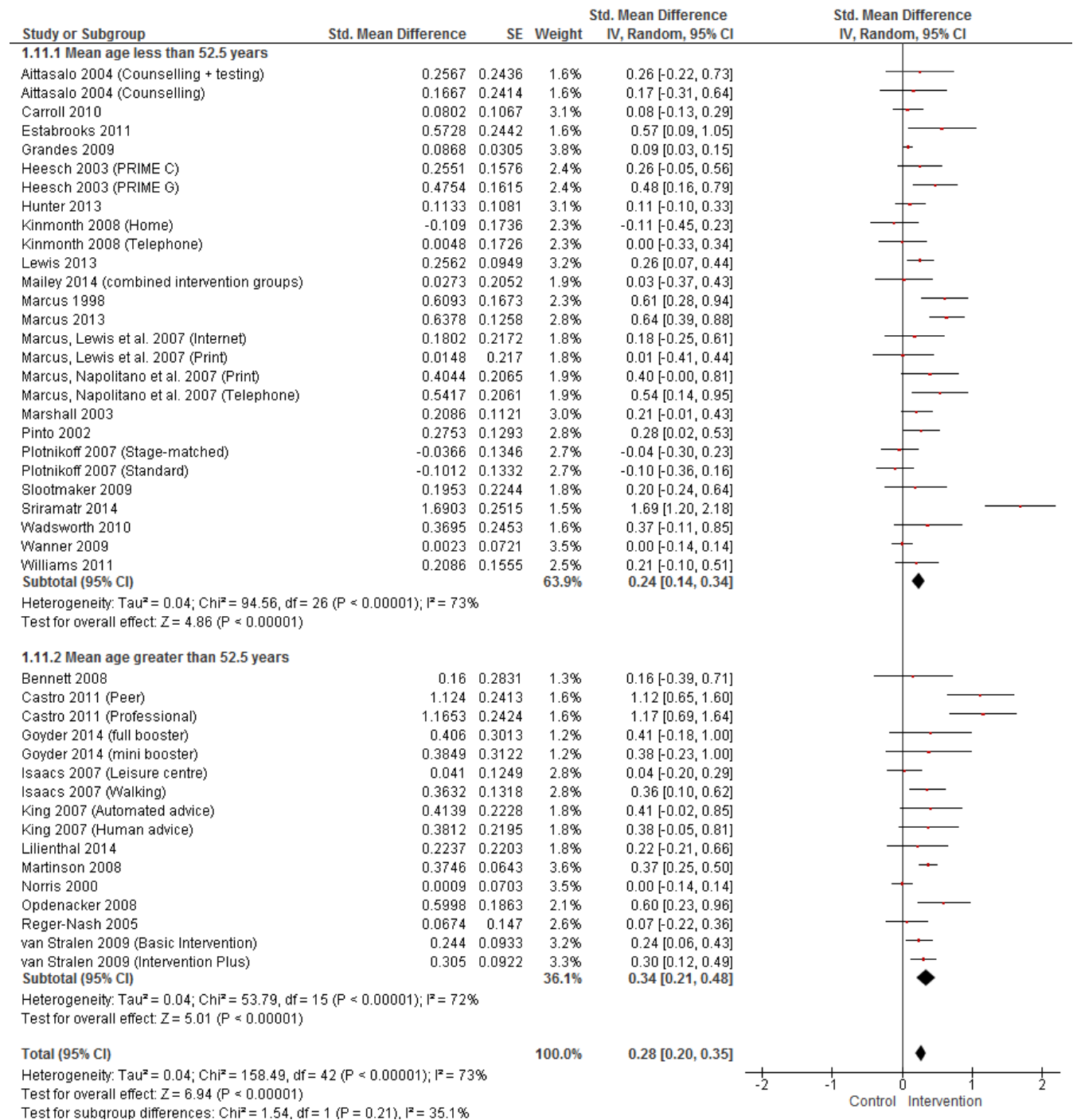


Figure 15: Forest plot for subgroup analysis (less than 64.1% female participants versus greater than 64.1% female participants)

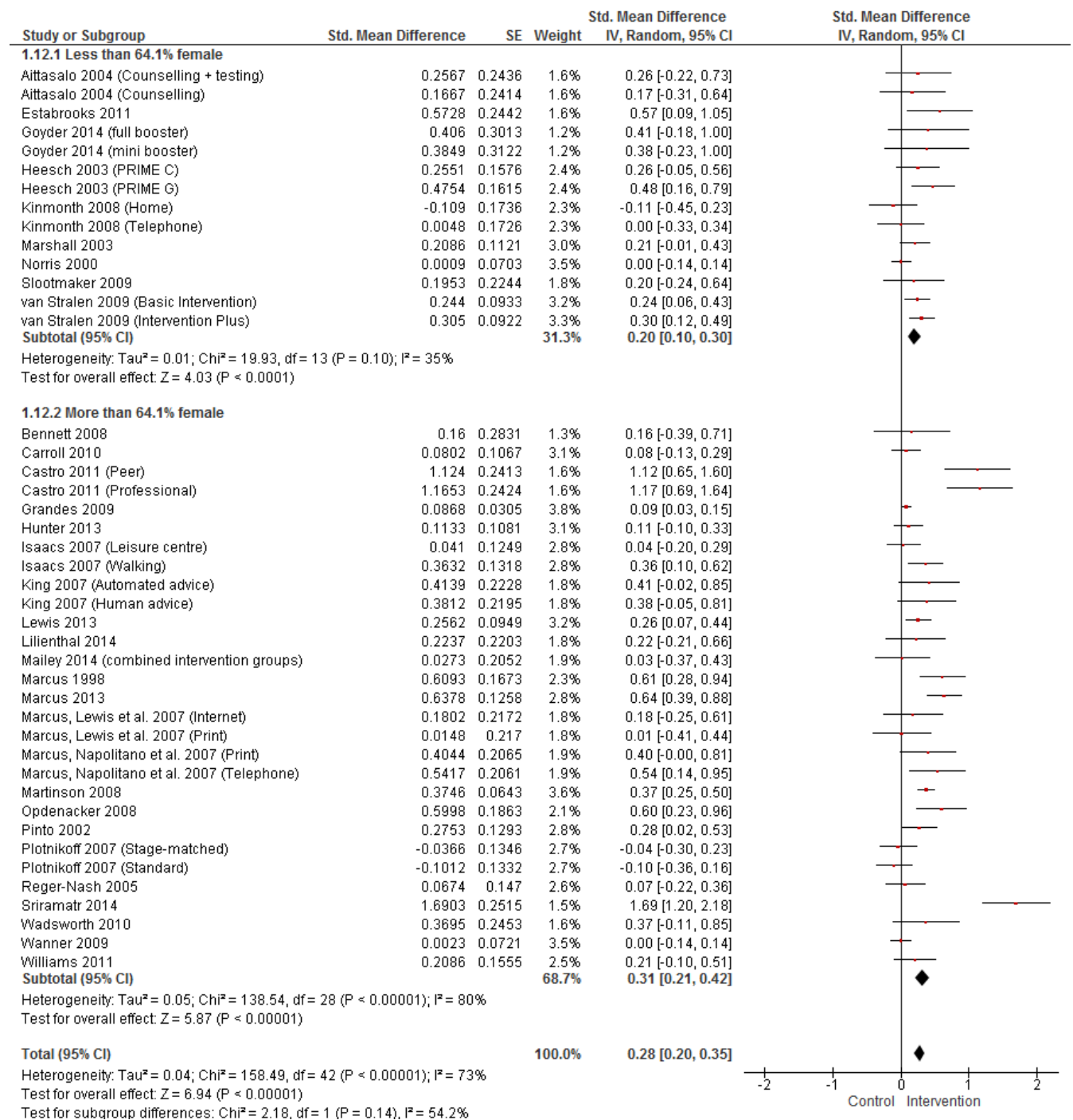


Figure 16: Forest plot for subgroup analysis (intervention length 0-3 months, >3-6 months, >6 months)

