Meta Analysis

Rachel Donahue, Yuli Jin, Xiang Li, Boyu Chen, Zhihui Zhang

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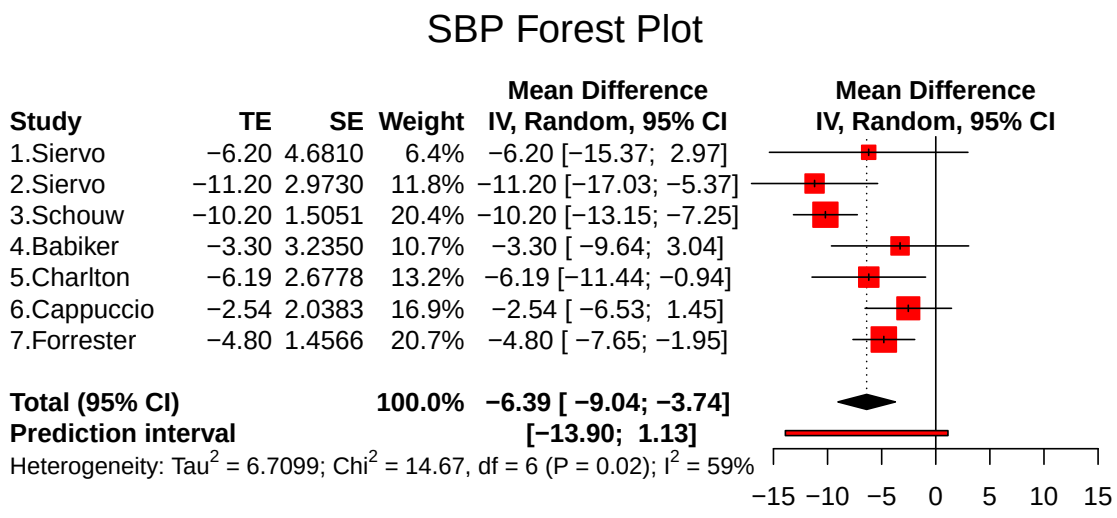
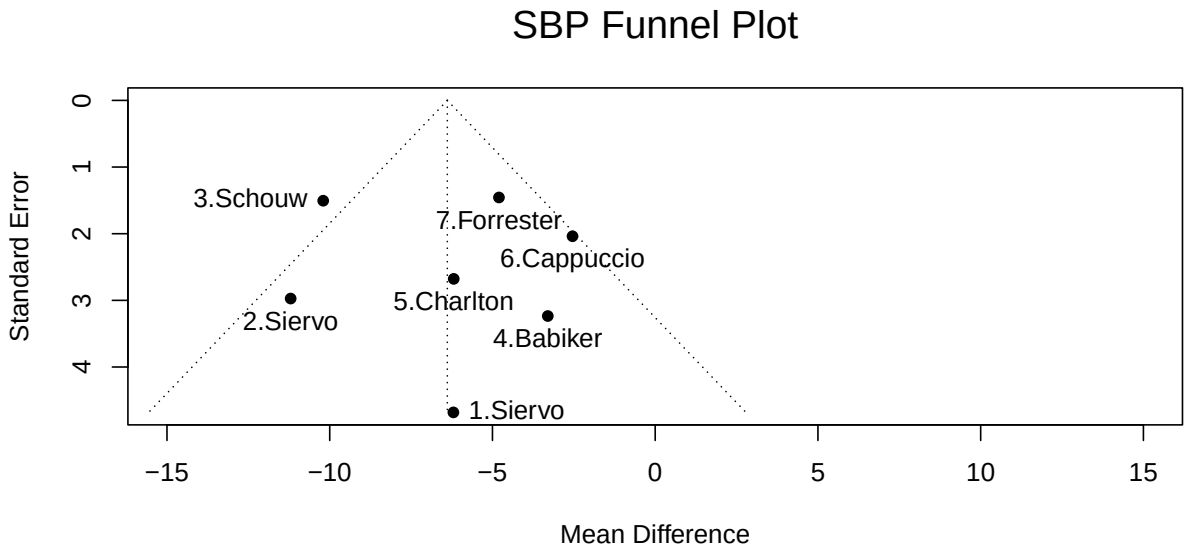
Data Processing Results

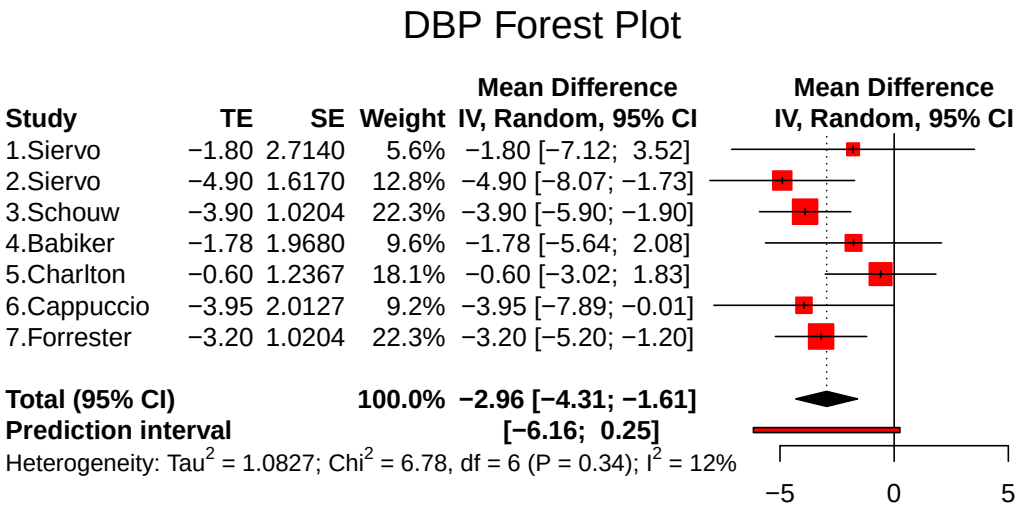
	StudyID	Author	Size	MeanDiff_SBP	MeanDiff_DBP	SE_SBP	SE_DBP	Duration_M
1	1	Siervo	11	-6.20	-1.800	4.6810	2.7140	2
2	1	Siervo	12	-11.20	-4.900	2.9730	1.6170	2
4	2	Schouw	137	-10.20	-3.900	1.5051	1.0204	24
5	3	Babiker	91	-3.30	-1.780	3.2350	1.9680	3
6	4	Charlton	80	-6.19	-0.595	2.6778	1.2367	6
7	5	Cappuccio	1013	-2.54	-3.950	2.0383	2.0127	6
8	6	Forrester	114	-4.80	-3.200	1.4566	1.0204	1.5

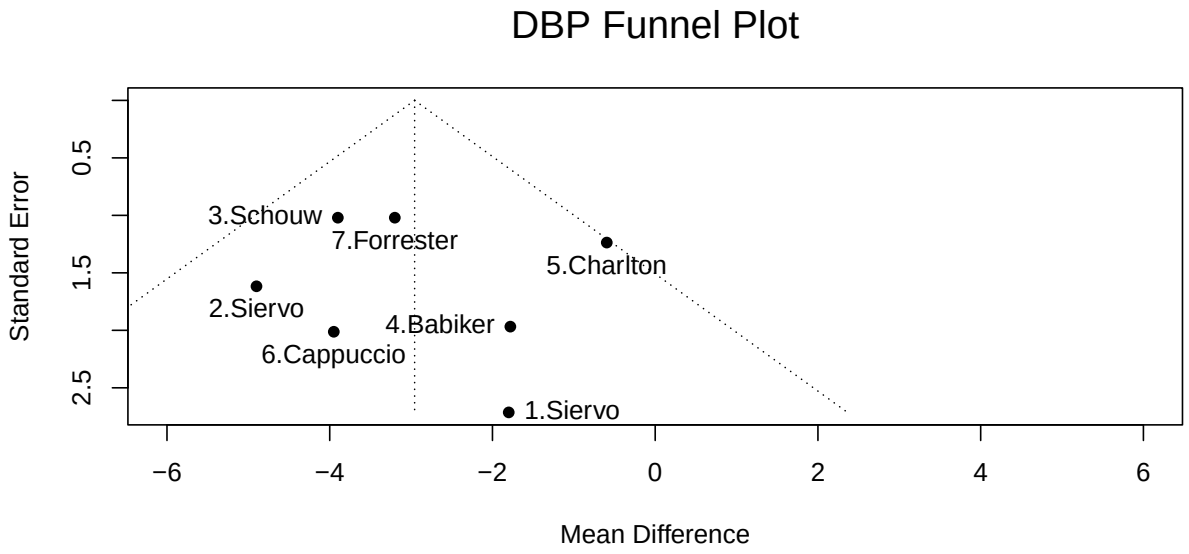
Forest & Funnel Plots





This is a fairly balanced funnel plot with an even amount of studies on either side of the mean difference line, and the studies relatively follow the expected funnel shape. The mean difference line is a negative value, which makes sense given that the studies are involving interventions to reduce SBP, it would be unlikely that there would be a study published with a positive mean difference. Overall this plot shows that there does not appear to be any publication bias.

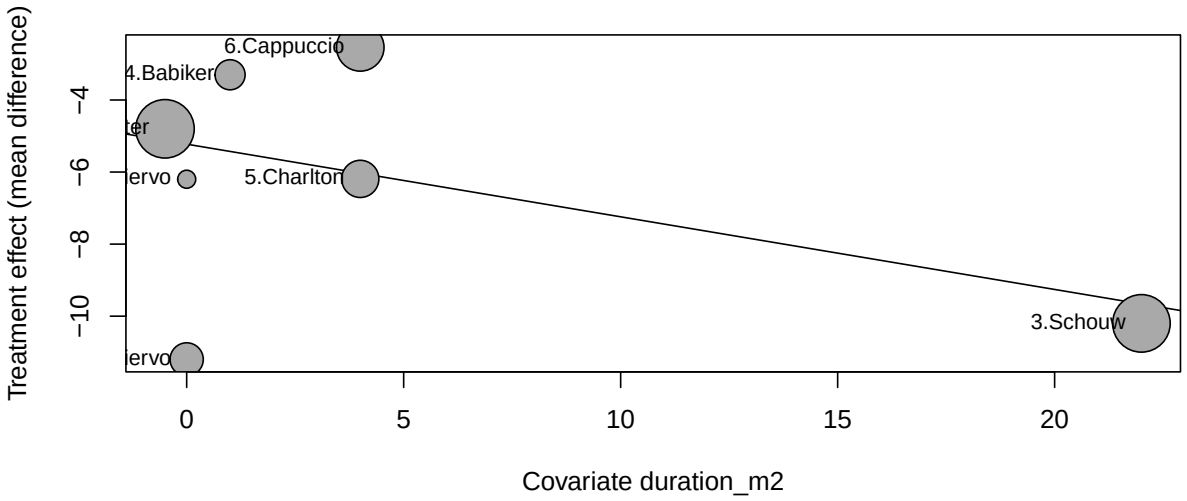




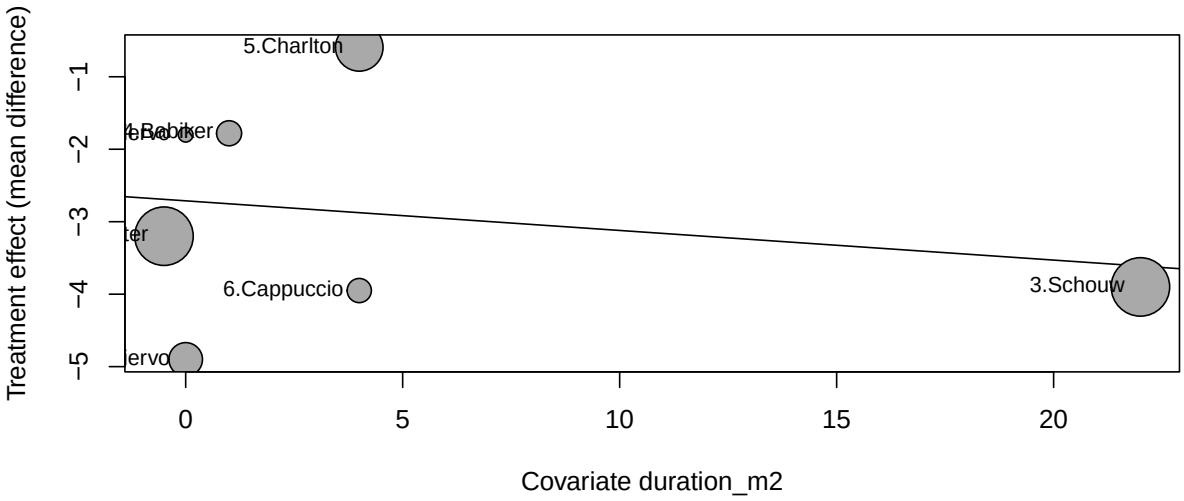
Similar to SBP, this is a fairly balanced funnel plot with an even amount of studies on either side of the mean difference line, and the studies relatively follow the expected funnel shape. The mean difference line is a little higher but still negative value, it seems in one study there was a positive mean difference in DBP after intervention. Overall this plot indicates that there does not appear to be any publication bias.

Meta regression

```
##
## Mixed-Effects Model (k = 7; tau^2 estimator: SJ)
##
## tau^2 (estimated amount of residual heterogeneity):     5.8719 (SE = 4.6832)
## tau (square root of estimated tau^2 value):             2.4232
## I^2 (residual heterogeneity / unaccounted variability): 48.46%
## H^2 (unaccounted variability / sampling variability):   1.94
## R^2 (amount of heterogeneity accounted for):            12.49%
##
## Test for Residual Heterogeneity:
## QE(df = 5) = 7.5186, p-val = 0.1848
##
## Test of Moderators (coefficient 2):
## QM(df = 1) = 1.7355, p-val = 0.1877
##
## Model Results:
##
##              estimate      se     zval    pval    ci.lb    ci.ub
## intrcpt       -5.2263  1.5744  -3.3196  0.0009  -8.3120  -2.1406  ***
## duration_m2   -0.2016  0.1530  -1.3174  0.1877  -0.5016   0.0983
##
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```




```
##
## Mixed-Effects Model (k = 7; tau^2 estimator: SJ)
##
## tau^2 (estimated amount of residual heterogeneity):     1.2241 (SE = 1.0624)
## tau (square root of estimated tau^2 value):             1.1064
## I^2 (residual heterogeneity / unaccounted variability): 32.91%
## H^2 (unaccounted variability / sampling variability):   1.49
## R^2 (amount of heterogeneity accounted for):            0.00%
##
## Test for Residual Heterogeneity:
## QE(df = 5) = 6.2005, p-val = 0.2872
##
## Test of Moderators (coefficient 2):
## QM(df = 1) = 0.2546, p-val = 0.6138
##
## Model Results:
##
##              estimate      se     zval    pval    ci.lb    ci.ub
## intrcpt       -2.7121  0.8533  -3.1783  0.0015  -4.3846  -1.0397  **
## duration_m2   -0.0409  0.0810  -0.5046  0.6138  -0.1997   0.1179
##
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```


Treatment effect (mean difference)
−1
−2
−3
−4
−5
5.Charlton
6.Cappuccio
3.Schouw
0
5
10
15
20
Covariate duration_m2