

Random-effects meta-analysis

```
library(readxl)
library(metafor)

## Loading required package: Matrix

## Loading 'metafor' package (version 2.4-0). For an overview
## and introduction to the package please type: help(metafor).

data_EQUAL_meta = read_excel("data_EQUAL_meta.xlsx")
attach(data_EQUAL_meta)
```

Gender-specific intervention effects

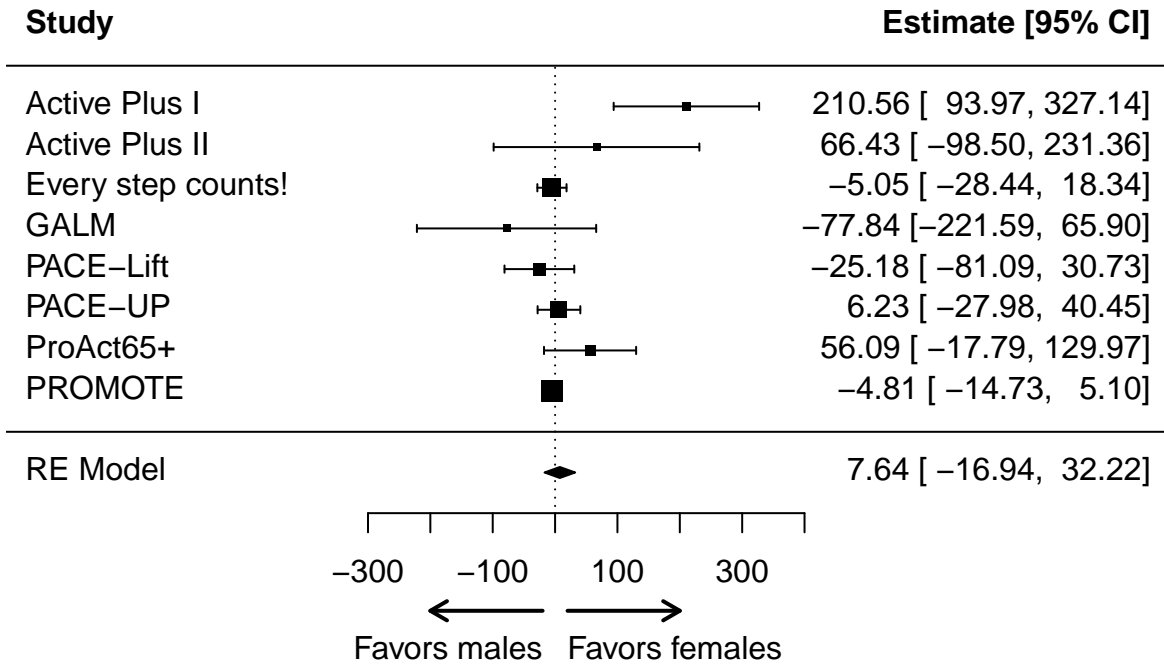
Model BOT1 (data from 8 studies; 7 randomized, 1 non-randomized; 3 with objective physical activity measure, 5 with subjective physical activity measure): The moderated effect of the intervention through gender (reference: male) at T1 (follow-up time-point closest to intervention end point), adjusted for physical activity level at T0 (baseline) and age:

```
mod_gnd_con_BOT1 = rma(yi=data_EQUAL_meta$X_GND_CON_BOT1,
                      sei=data_EQUAL_meta$X_GND_CON_BOT1/data_EQUAL_meta$t_X_GND_CON_BOT1,
                      method='DL',slab=Study)
summary(mod_gnd_con_BOT1)
```

```
##
## Random-Effects Model (k = 8; tau^2 estimator: DL)
##
##   logLik deviance      AIC      BIC      AICc
## -44.6488  21.0861  93.2976  93.4565  95.6976
##
## tau^2 (estimated amount of total heterogeneity): 521.1622 (SE = 618.9129)
## tau (square root of estimated tau^2 value):      22.8290
## I^2 (total heterogeneity / total variability):   61.34%
## H^2 (total variability / sampling variability):   2.59
##
## Test for Heterogeneity:
## Q(df = 7) = 18.1067, p-val = 0.0115
##
## Model Results:
##
## estimate      se      zval      pval      ci.lb      ci.ub
##   7.6388  12.5412  0.6091  0.5425 -16.9414  32.2190
##
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

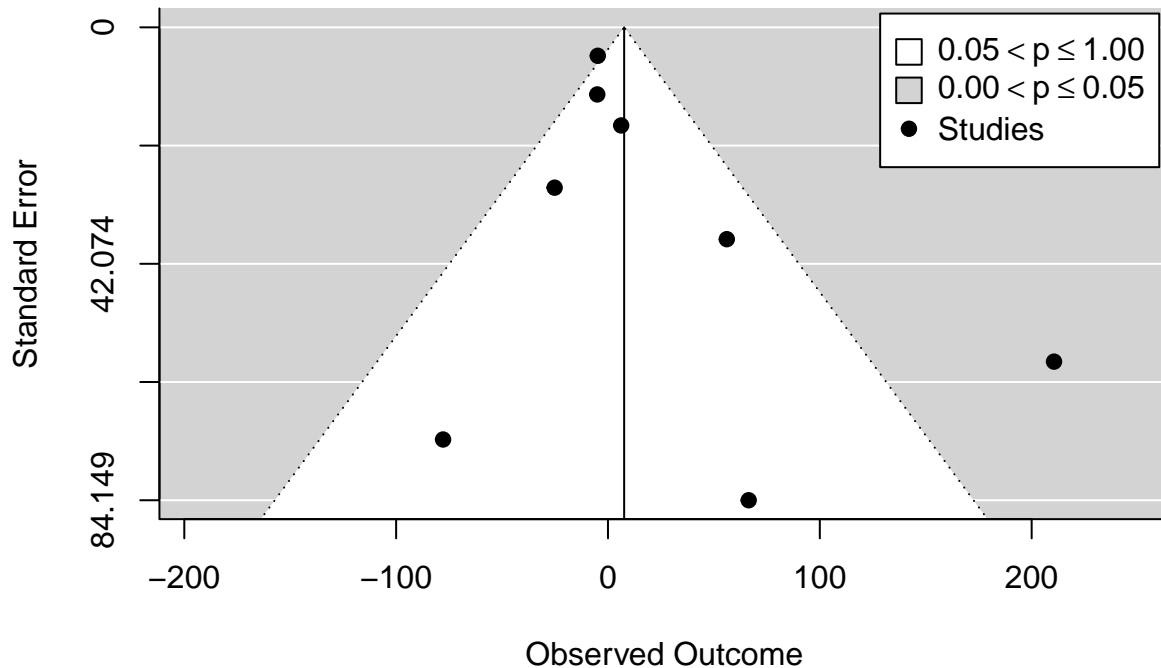
forest(mod_gnd_con_BOT1,main="Forest plot",header='Study',xlab = '')
mtext(c("Favors males", "Favors females"), side=1, line=3, at=c(-20,20),adj=c(1,0))
arrows(x0=c(-20,20), y0=-4.4, x1=c(-200, 200), y1=-4.4, length=0.1, lwd=2, xpd=TRUE)
```

Forest plot



```
funnel(mod_gnd_con_B0T1, legend=TRUE, main='Funnel plot')
```

Funnel plot



Model B2T1 (data from 8 studies; 7 randomized, 1 non-randomized; 3 with objective physical activity measure, 5 with subjective physical activity measure): The moderated effect of the intervention through gender (reference: male) at T1, adjusted for physical activity level at T0, age, education, and the condition x education interaction:

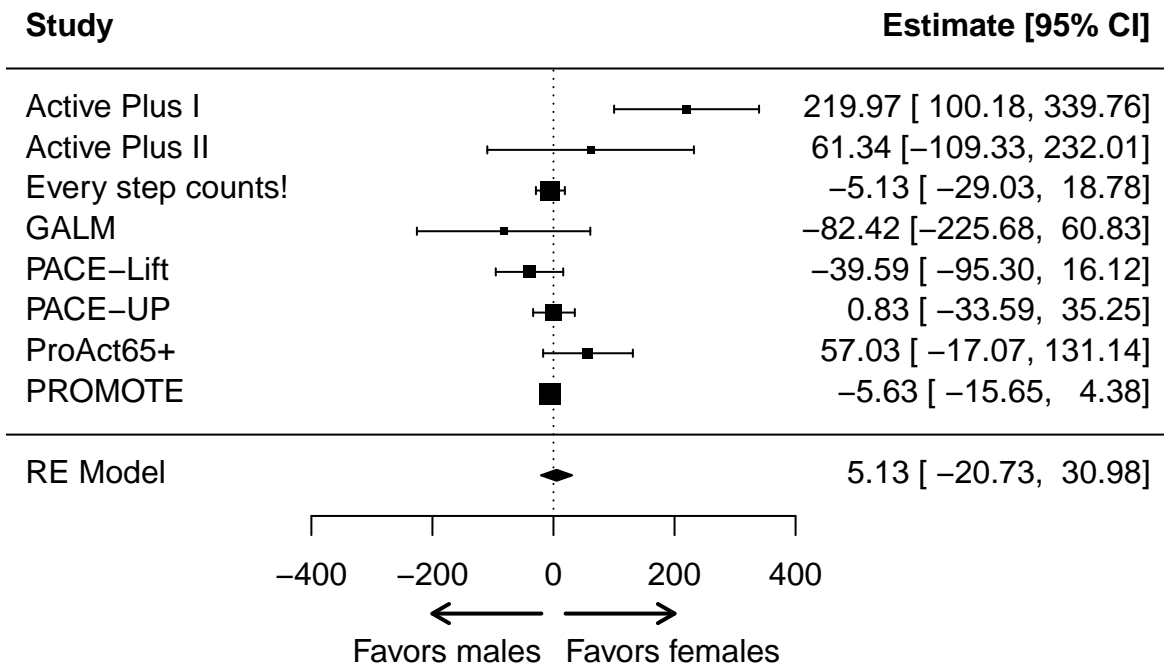
```
mod_gnd_con_B2T1 = rma(yi=data_EQUAL_meta$X_GND_CON_B2T1,
                      sei=data_EQUAL_meta$X_GND_CON_B2T1/data_EQUAL_meta$t_X_GND_CON_B2T1,
                      method='DL',slab=Study)
summary(mod_gnd_con_B2T1)
```

```
##
## Random-Effects Model (k = 8; tau^2 estimator: DL)
##
##   logLik deviance      AIC      BIC     AICc
## -45.4653  22.5301  94.9305  95.0894  97.3305
##
## tau^2 (estimated amount of total heterogeneity): 601.9298 (SE = 696.3036)
## tau (square root of estimated tau^2 value):      24.5343
## I^2 (total heterogeneity / total variability):   64.11%
## H^2 (total variability / sampling variability):  2.79
##
## Test for Heterogeneity:
## Q(df = 7) = 19.5037, p-val = 0.0067
##
## Model Results:
##
## estimate      se      zval      pval      ci.lb      ci.ub
```

```
## 5.1265 13.1928 0.3886 0.6976 -20.7309 30.9839
##
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

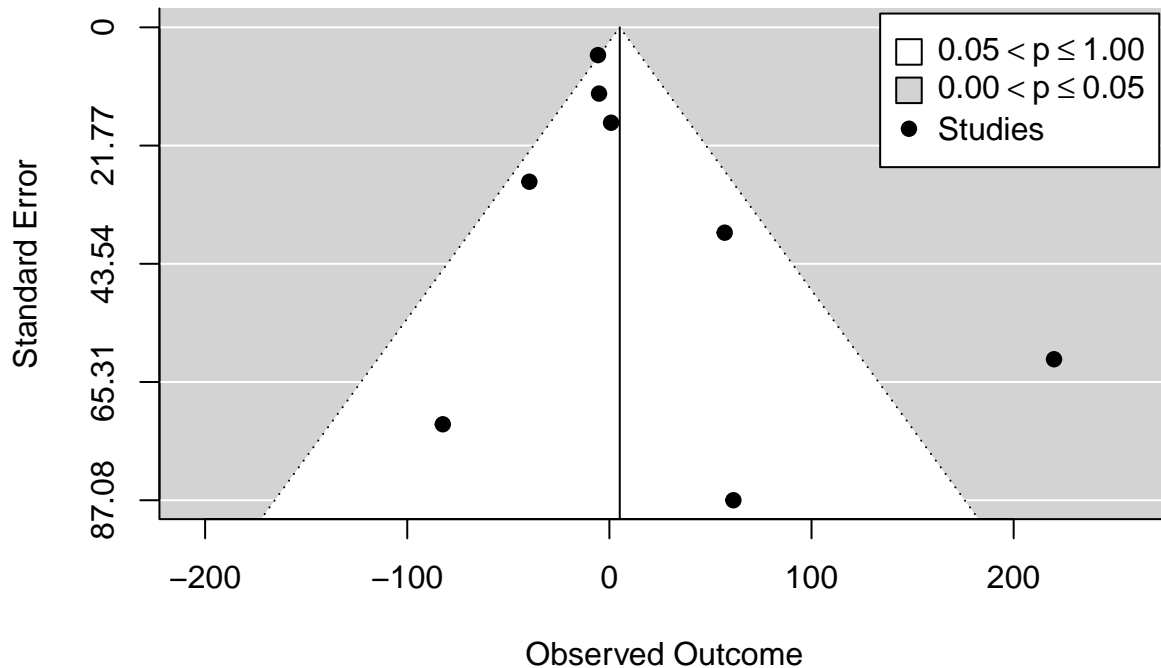
```
forest(mod_gnd_con_B2T1,main="Forest plot",header='Study',xlab='')
mtext(c("Favors males", "Favors females"), side=1, line=3, at=c(-20,20),adj=c(1,0))
arrows(x0=c(-20,20), y0=-4.4, x1=c(-200, 200), y1=-4.4, length=0.1, lwd=2, xpd=TRUE)
```

Forest plot



```
funnel(mod_gnd_con_B2T1,legend=TRUE,main='Funnel plot')
```

Funnel plot



Model BOT2 (data from 5 studies; 5 randomized, 0 non-randomized; 2 with objective physical activity measure, 3 with subjective physical activity measure): The moderated effect of the intervention through gender (reference: male) at T2 (next follow-up assessment), adjusted for physical activity level at T0 and age

```
mod_gnd_con_BOT2 = rma(yi=data_EQUAL_meta$X_GND_CON_BOT2,
                      sei=data_EQUAL_meta$X_GND_CON_BOT2/data_EQUAL_meta$t_X_GND_CON_BOT2,
                      method='DL',slab=Study)
```

```
## Warning in rma(yi = data_EQUAL_meta$X_GND_CON_BOT2, sei =
## data_EQUAL_meta$X_GND_CON_BOT2/data_EQUAL_meta$t_X_GND_CON_BOT2, : Studies with
## NAs omitted from model fitting.
```

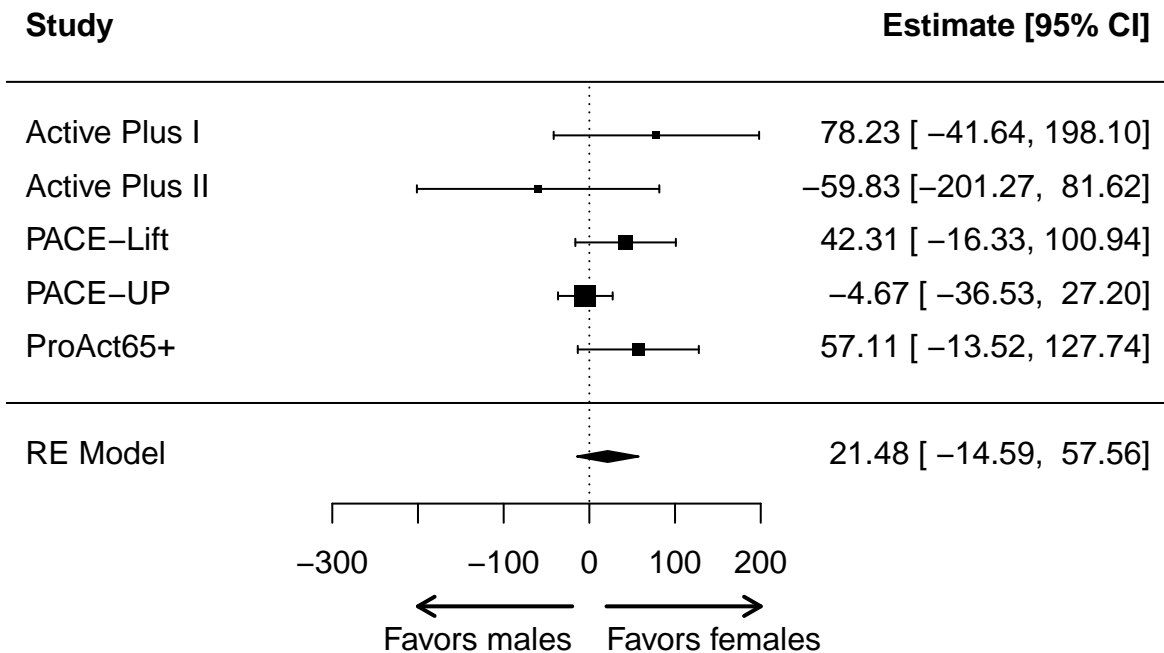
```
summary(mod_gnd_con_BOT2)
```

```
##
## Random-Effects Model (k = 5; tau^2 estimator: DL)
##
##   logLik  deviance      AIC      BIC      AICc
## -25.7039   5.8907  55.4079  54.6268  61.4079
##
## tau^2 (estimated amount of total heterogeneity): 515.7280 (SE = 1214.8656)
## tau (square root of estimated tau^2 value):      22.7096
## I^2 (total heterogeneity / total variability):    30.95%
## H^2 (total variability / sampling variability):    1.45
##
## Test for Heterogeneity:
## Q(df = 4) = 5.7933, p-val = 0.2151
##
```

```
## Model Results:
##
## estimate      se      zval      pval      ci.lb      ci.ub
## 21.4838  18.4062  1.1672  0.2431  -14.5917  57.5592
##
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

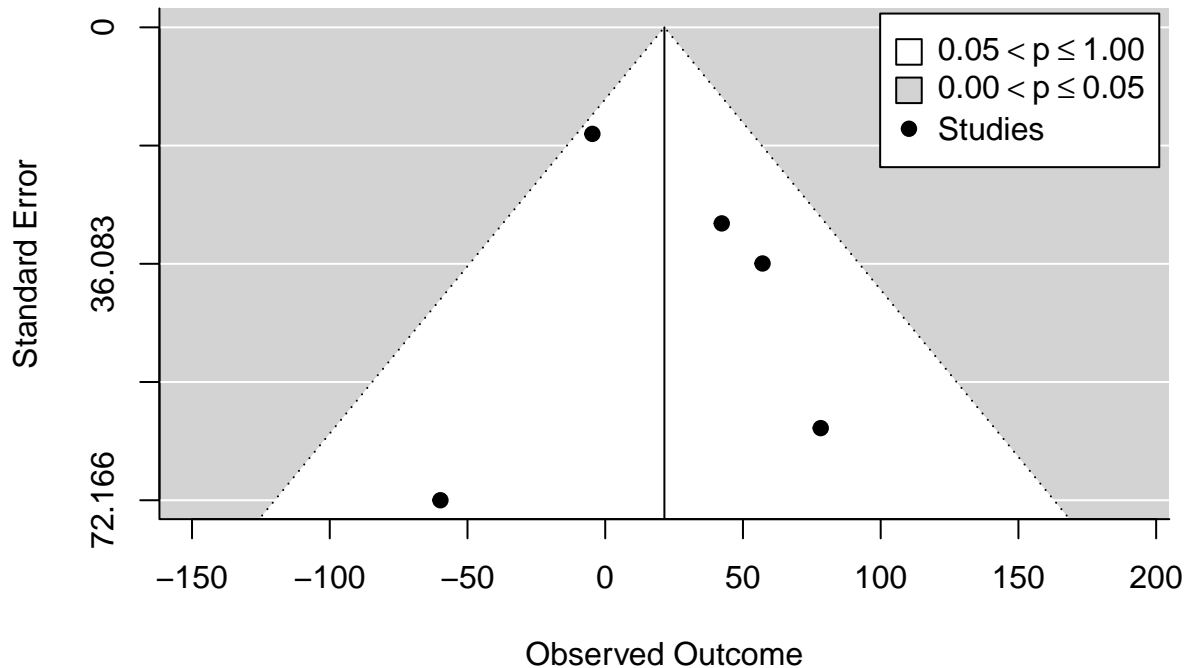
```
forest(mod_gnd_con_BOT2,main="Forest plot",header='Study',xlab='')
mtext(c("Favors males", "Favors females"), side=1, line=3, at=c(-20,20),adj=c(1,0))
arrows(x0=c(-20,20), y0=-3.8, x1=c(-200, 200), y1=-3.8, length=0.1, lwd=2, xpd=TRUE)
```

Forest plot



```
funnel(mod_gnd_con_BOT2,legend=TRUE,main='Funnel plot')
```

Funnel plot



Model B2T2 (data from 5 studies; 5 randomized, 0 non-randomized; 2 with objective physical activity measure, 3 with subjective physical activity measure): The moderated effect of the intervention through gender (reference: male) at T2, adjusted for physical activity level at T0, age, education, and the condition x education interaction

```
mod_gnd_con_B2T2 = rma(yi=data_EQUAL_meta$X_GND_CON_B2T2,
                      sei=data_EQUAL_meta$X_GND_CON_B2T2/data_EQUAL_meta$t_X_GND_CON_B2T2,
                      method='DL',slab=Study)
```

```
## Warning in rma(yi = data_EQUAL_meta$X_GND_CON_B2T2, sei =
## data_EQUAL_meta$X_GND_CON_B2T2/data_EQUAL_meta$t_X_GND_CON_B2T2, : Studies with
## NAs omitted from model fitting.
```

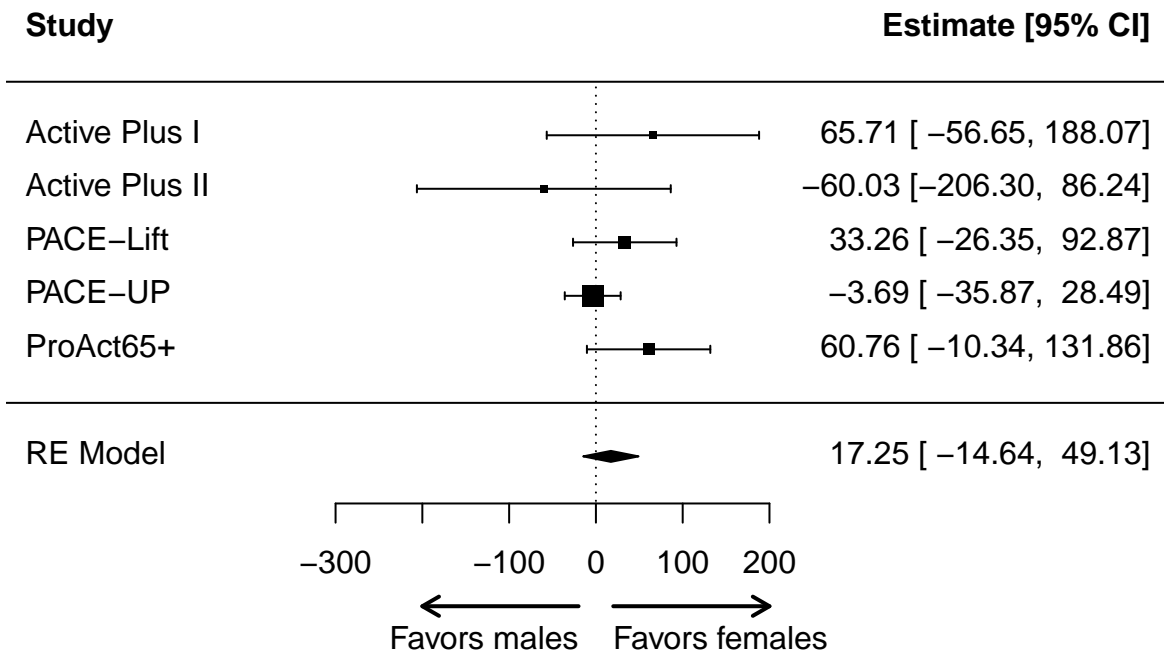
```
summary(mod_gnd_con_B2T2)
```

```
##
## Random-Effects Model (k = 5; tau^2 estimator: DL)
##
##   logLik deviance      AIC      BIC      AICc
## -25.3700  5.0487  54.7400  53.9589  60.7400
##
## tau^2 (estimated amount of total heterogeneity): 260.1575 (SE = 1031.7693)
## tau (square root of estimated tau^2 value):      16.1294
## I^2 (total heterogeneity / total variability):   18.02%
## H^2 (total variability / sampling variability):  1.22
##
## Test for Heterogeneity:
## Q(df = 4) = 4.8794, p-val = 0.2999
```

```
##
## Model Results:
##
## estimate      se      zval      pval      ci.lb      ci.ub
## 17.2465  16.2688  1.0601  0.2891  -14.6398  49.1327
##
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

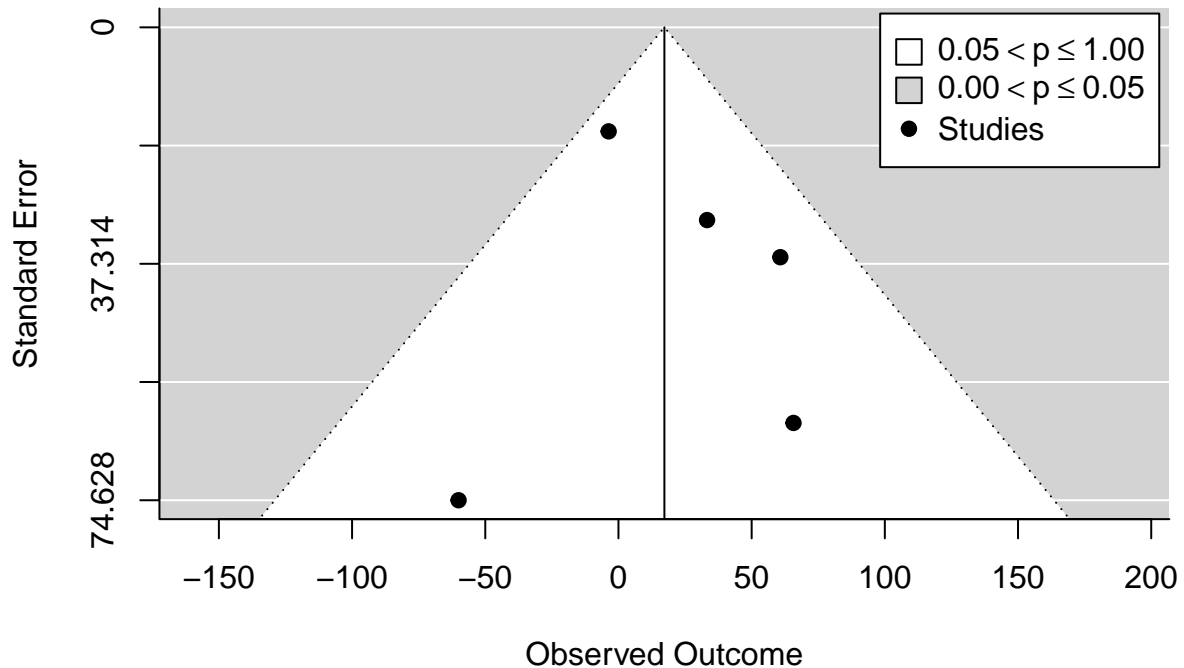
```
forest(mod_gnd_con_B2T2,main="Forest plot",header='Study',xlab='')
mtext(c("Favors males", "Favors females"), side=1, line=3, at=c(-20,20),adj=c(1,0))
arrows(x0=c(-20,20), y0=-3.8, x1=c(-200, 200), y1=-3.8, length=0.1, lwd=2, xpd=TRUE)
```

Forest plot



```
funnel(mod_gnd_con_B2T2,legend=TRUE,main='Funnel plot')
```


Funnel plot



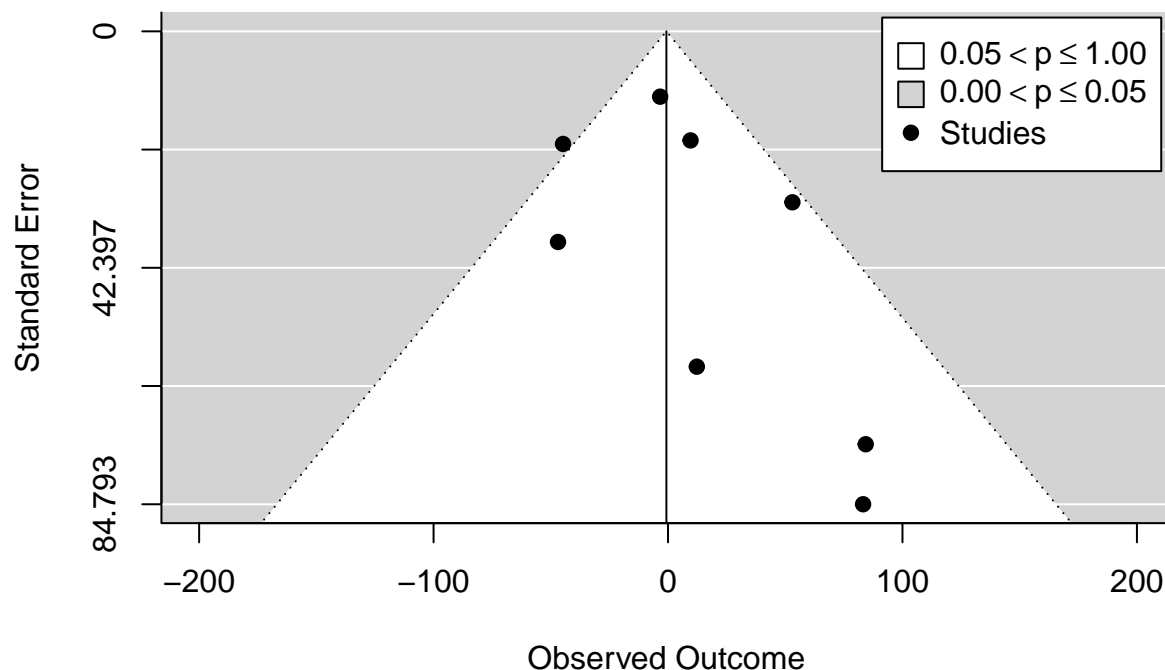
Education-specific intervention effects

Model COT1 (data from 8 studies; 7 randomized, 1 non-randomized; 3 with objective physical activity measure, 5 with subjective physical activity measure): The moderated effect of the intervention through education (reference: medium/high) at T2, adjusted for physical activity level at T0 and age

```
mod_edu_con_COT1 = rma(yi=data_EQUAL_meta$X_EDU_CON_COT1,  
                      sei=data_EQUAL_meta$X_EDU_CON_COT1/data_EQUAL_meta$t_X_EDU_CON_COT1,  
                      method='DL',slab=Study)  
summary(mod_edu_con_COT1)
```

```
##  
## Random-Effects Model (k = 8; tau^2 estimator: DL)  
##  
##   logLik  deviance      AIC      BIC     AICc  
## -41.5474  11.7223   87.0949   87.2538   89.4949  
##  
## tau^2 (estimated amount of total heterogeneity): 481.7621 (SE = 686.0676)  
## tau (square root of estimated tau^2 value):      21.9491  
## I^2 (total heterogeneity / total variability):   41.05%  
## H^2 (total variability / sampling variability):   1.70  
##  
## Test for Heterogeneity:  
## Q(df = 7) = 11.8743, p-val = 0.1048  
##  
## Model Results:
```


Funnel plot

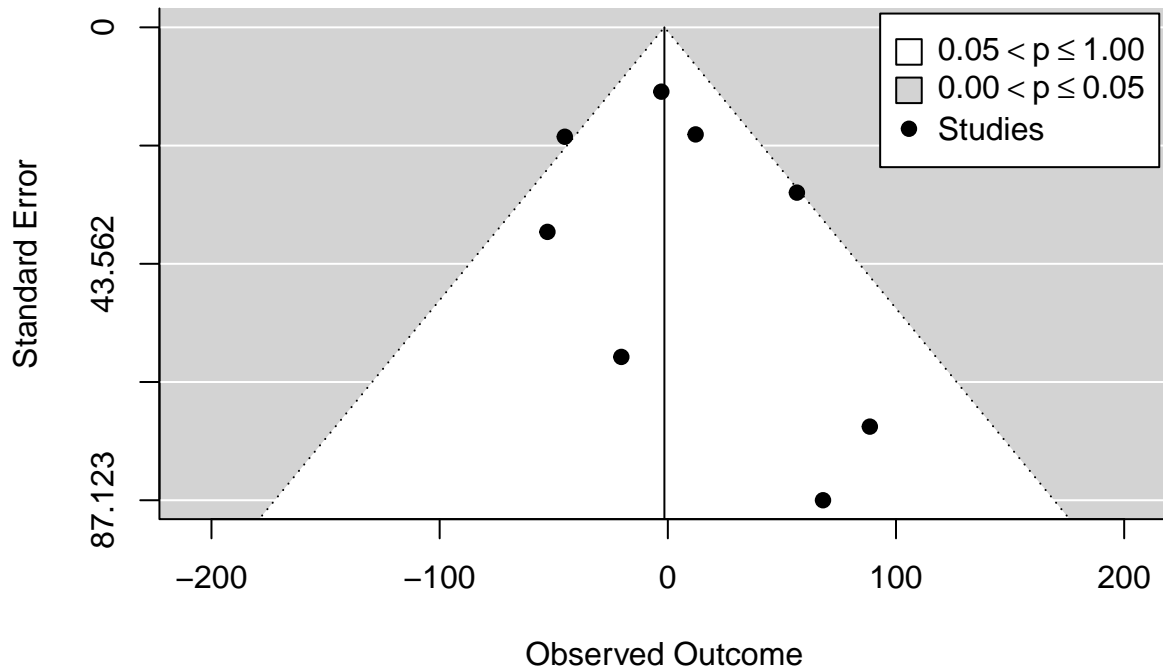


Model C2T1 (data from 8 studies; 7 randomized, 1 non-randomized; 3 with objective physical activity measure, 5 with subjective physical activity measure): The moderated effect of the intervention through education (reference: medium/high) at T1, adjusted for physical activity level at T0, age, gender, and the condition x gender interaction

```
mod_edu_con_C2T1 = rma(yi=data_EQUAL_meta$X_EDU_CON_C2T1,
                      sei=data_EQUAL_meta$X_EDU_CON_C2T1/data_EQUAL_meta$t_X_EDU_CON_C2T1,
                      method='DL',slab=Study)
summary(mod_edu_con_C2T1)
```

```
##
## Random-Effects Model (k = 8; tau^2 estimator: DL)
##
##   logLik deviance      AIC      BIC     AICc
## -41.8717  12.2916  87.7433  87.9022  90.1433
##
## tau^2 (estimated amount of total heterogeneity): 579.8033 (SE = 759.2898)
## tau (square root of estimated tau^2 value):      24.0791
## I^2 (total heterogeneity / total variability):   45.40%
## H^2 (total variability / sampling variability):   1.83
##
## Test for Heterogeneity:
## Q(df = 7) = 12.8201, p-val = 0.0766
##
## Model Results:
##
## estimate      se      zval    pval    ci.lb    ci.ub
```


Funnel plot



Model COT2 (data from 5 studies; 5 randomized, 0 non-randomized; 2 with objective physical activity measure, 3 with subjective physical activity measure): The moderated effect of the intervention through education (reference: medium/high) at T2, adjusted for physical activity level at T0 and age

```
mod_edu_con_COT2 = rma(yi=data_EQUAL_meta$X_EDU_CON_COT2,
                      sei=data_EQUAL_meta$X_EDU_CON_COT2/data_EQUAL_meta$t_X_EDU_CON_COT2,
                      method='DL',slab=Study)
```

```
## Warning in rma(yi = data_EQUAL_meta$X_EDU_CON_COT2, sei =
## data_EQUAL_meta$X_EDU_CON_COT2/data_EQUAL_meta$t_X_EDU_CON_COT2, : Studies with
## NAs omitted from model fitting.
```

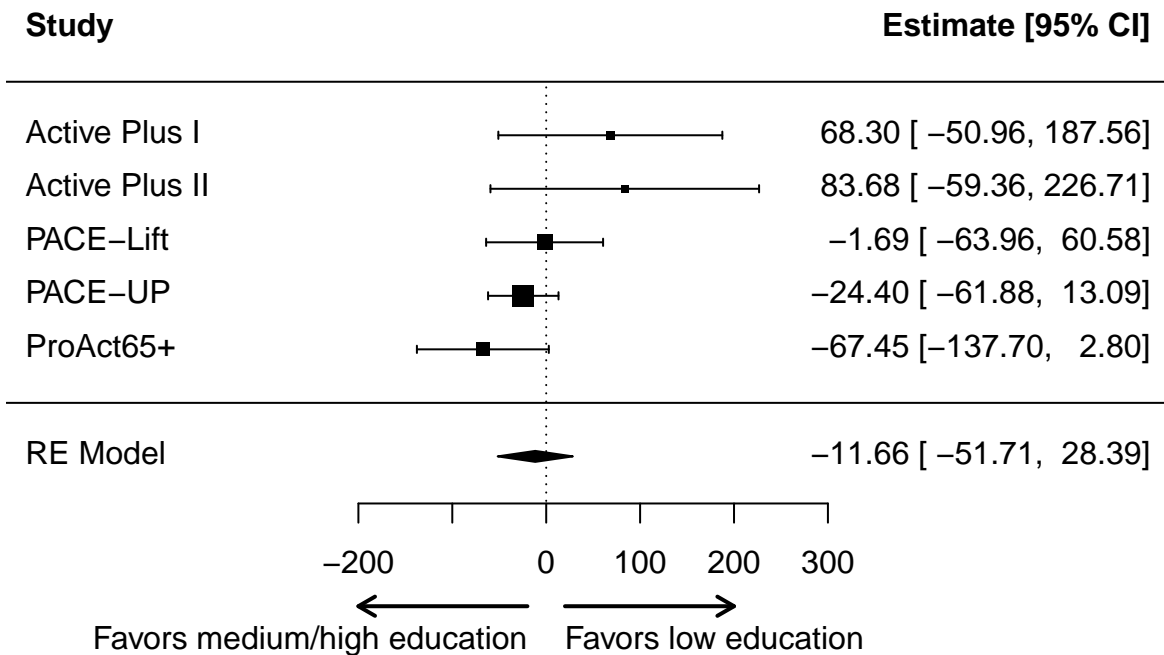
```
summary(mod_edu_con_COT2)
```

```
##
## Random-Effects Model (k = 5; tau^2 estimator: DL)
##
##   logLik  deviance      AIC      BIC      AICc
## -26.5228   7.0817  57.0455  56.2644  63.0455
##
## tau^2 (estimated amount of total heterogeneity): 716.6227 (SE = 1464.5754)
## tau (square root of estimated tau^2 value):      26.7698
## I^2 (total heterogeneity / total variability):   35.80%
## H^2 (total variability / sampling variability):  1.56
##
## Test for Heterogeneity:
## Q(df = 4) = 6.2305, p-val = 0.1826
##
```

```
## Model Results:
##
## estimate      se      zval    pval    ci.lb    ci.ub
## -11.6589    20.4349   -0.5705   0.5683  -51.7106  28.3927
##
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

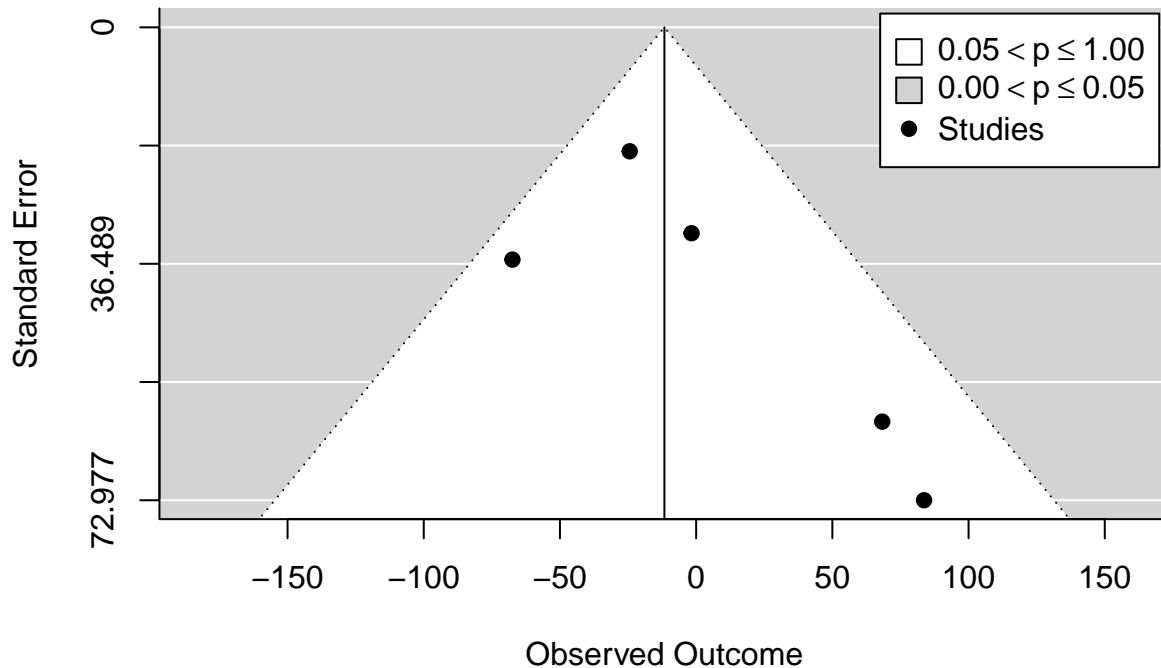
```
forest(mod_edu_con_COT2,main="Forest plot",header='Study',xlab='')
mtext(c("Favors medium/high education", "Favors low education"),
      side=1, line=3, at=c(-20,20),adj=c(1,0))
arrows(x0=c(-20,20), y0=-3.8, x1=c(-200, 200), y1=-3.8, length=0.1, lwd=2, xpd=TRUE)
```

Forest plot



```
funnel(mod_edu_con_COT2,legend=TRUE,main='Funnel plot')
```

Funnel plot



Model C2T2 (data from 5 studies; 5 randomized, 0 non-randomized; 2 with objective physical activity measure, 3 with subjective physical activity measure): The moderated effect of the intervention through education (reference: medium/high) at T2, adjusted for physical activity level at T0, age, gender, and the condition x gender interaction

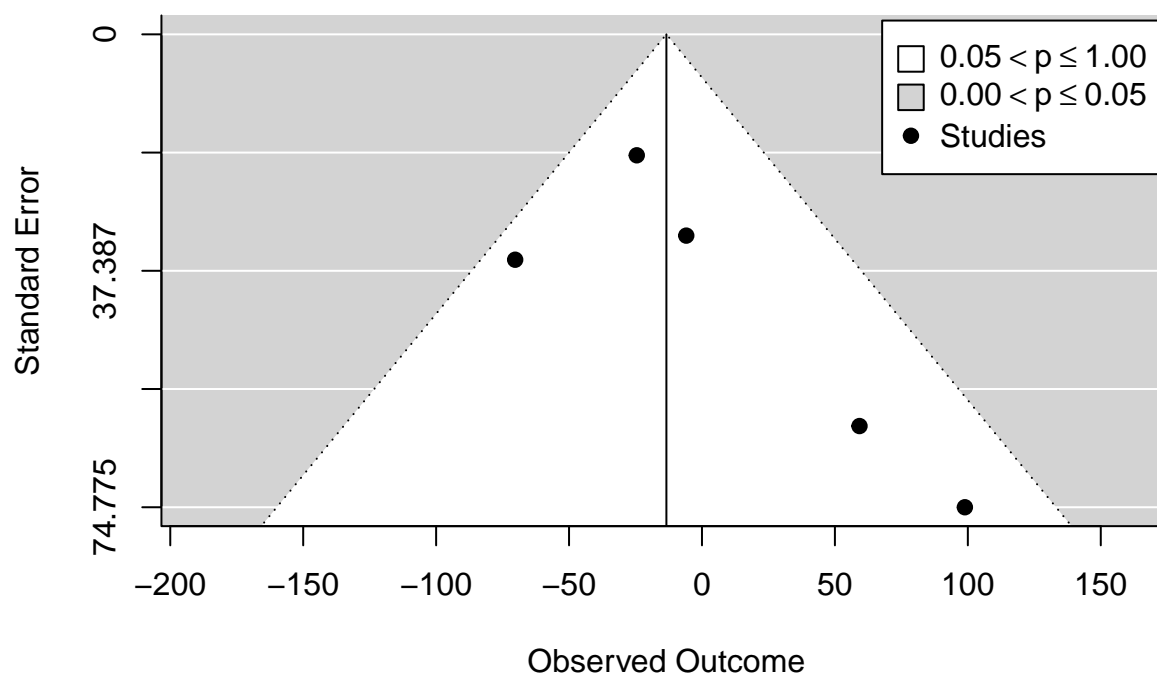
```
mod_edu_con_C2T2 = rma(yi=data_EQUAL_meta$X_EDU_CON_C2T2,
                      sei=data_EQUAL_meta$X_EDU_CON_C2T2/data_EQUAL_meta$t_X_EDU_CON_C2T2,
                      method='DL',slab=Study)
```

```
## Warning in rma(yi = data_EQUAL_meta$X_EDU_CON_C2T2, sei =
## data_EQUAL_meta$X_EDU_CON_C2T2/data_EQUAL_meta$t_X_EDU_CON_C2T2, : Studies with
## NAs omitted from model fitting.
```

```
summary(mod_edu_con_C2T2)
```

```
##
## Random-Effects Model (k = 5; tau^2 estimator: DL)
##
##   logLik deviance      AIC      BIC      AICc
## -26.6917   7.3435  57.3834  56.6022  63.3834
##
## tau^2 (estimated amount of total heterogeneity): 776.5484 (SE = 1520.0142)
## tau (square root of estimated tau^2 value):      27.8666
## I^2 (total heterogeneity / total variability):   37.53%
## H^2 (total variability / sampling variability):  1.60
##
## Test for Heterogeneity:
## Q(df = 4) = 6.4035, p-val = 0.1710
```


Funnel plot



Marital status-specific intervention effects

Model D0T1 (data from 8 studies; 7 randomized, 1 non-randomized; 3 with objective physical activity measure, 5 with subjective physical activity measure): The moderated effect of the intervention through marital status (reference: with partner) at T1, adjusted for physical activity level at T0 and age

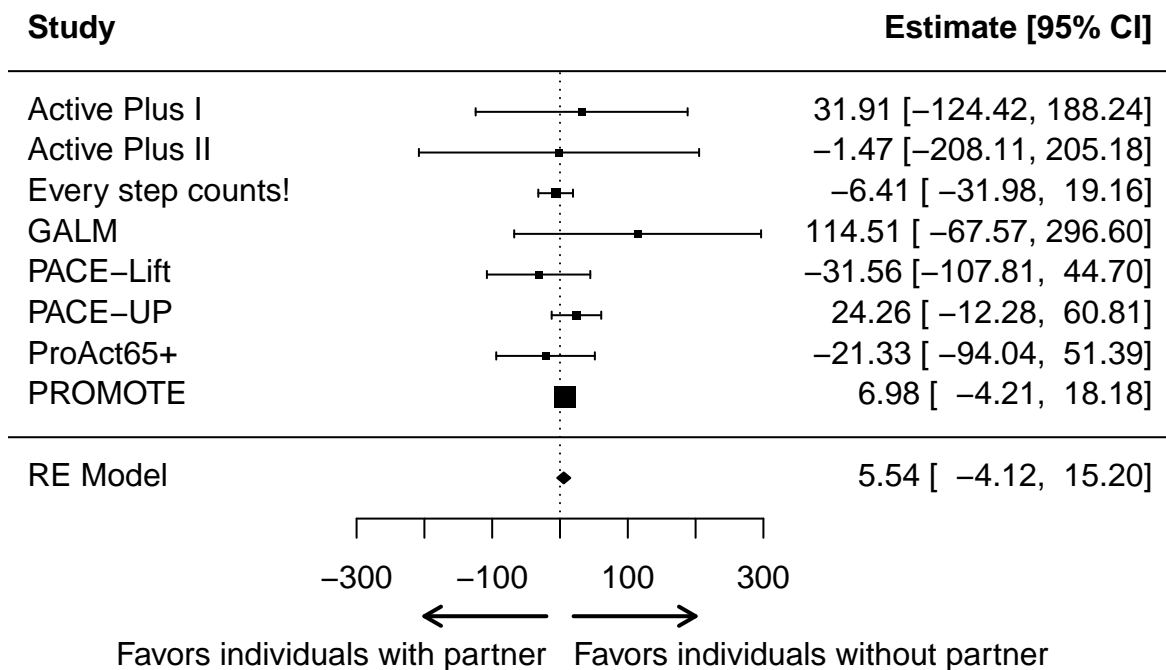
```
mod_mar_con_D0T1 = rma(yi=data_EQUAL_meta$X_MAR_CON_D0T1,  
                      sei=data_EQUAL_meta$X_MAR_CON_D0T1/data_EQUAL_meta$t_X_MAR_CON_D0T1,  
                      method='DL',slab=Study)  
summary(mod_mar_con_D0T1)
```

```
##  
## Random-Effects Model (k = 8; tau^2 estimator: DL)  
##  
##   logLik  deviance      AIC      BIC     AICc  
## -37.8487   4.8342  79.6973  79.8562  82.0973  
##  
## tau^2 (estimated amount of total heterogeneity): 0 (SE = 216.7856)  
## tau (square root of estimated tau^2 value):      0  
## I^2 (total heterogeneity / total variability):   0.00%  
## H^2 (total variability / sampling variability):   1.00  
##  
## Test for Heterogeneity:  
## Q(df = 7) = 4.8342, p-val = 0.6802  
##  
## Model Results:
```

```
##
## estimate      se      zval      pval      ci.lb      ci.ub
## 5.5399 4.9296 1.1238 0.2611 -4.1220 15.2018
##
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

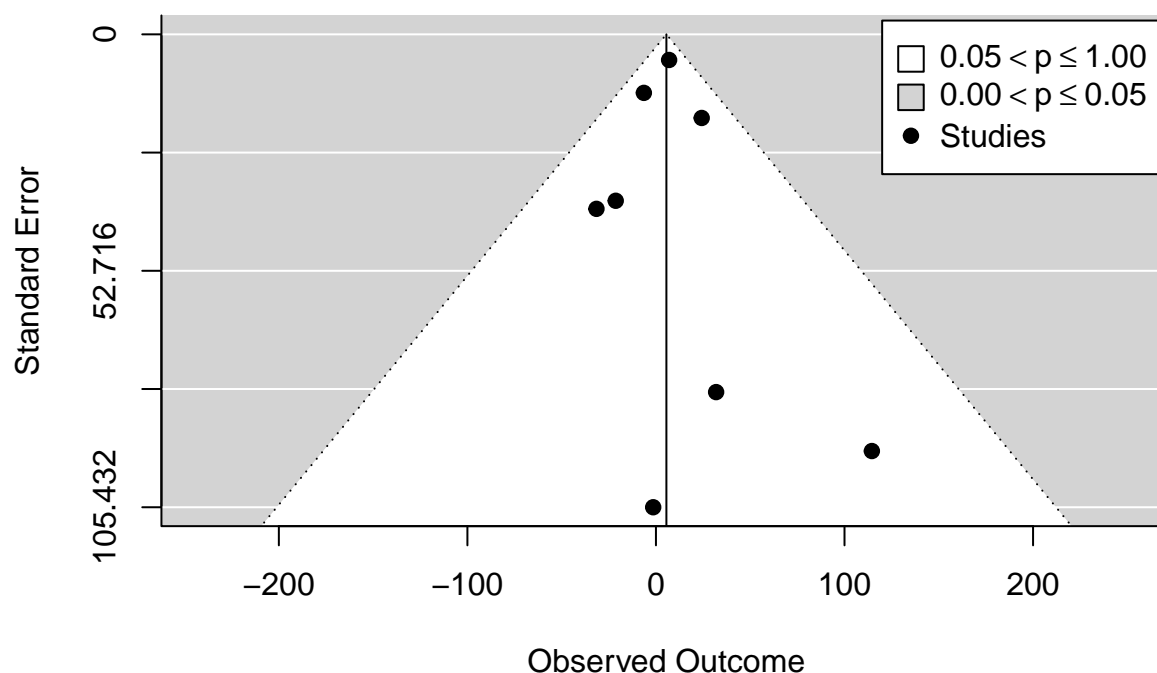
forest(mod_mar_con_DOT1,main="Forest plot",header='Study',xlab='')
mtext(c("Favors individuals with partner", "Favors individuals without partner"),
      side=1, line=3, at=c(-20,20),adj=c(1,0))
arrows(x0=c(-20,20), y0=-4.4, x1=c(-200, 200), y1=-4.4, length=0.1, lwd=2, xpd=TRUE)
```

Forest plot



```
funnel(mod_mar_con_DOT1,legend=TRUE,main='Funnel plot')
```

Funnel plot



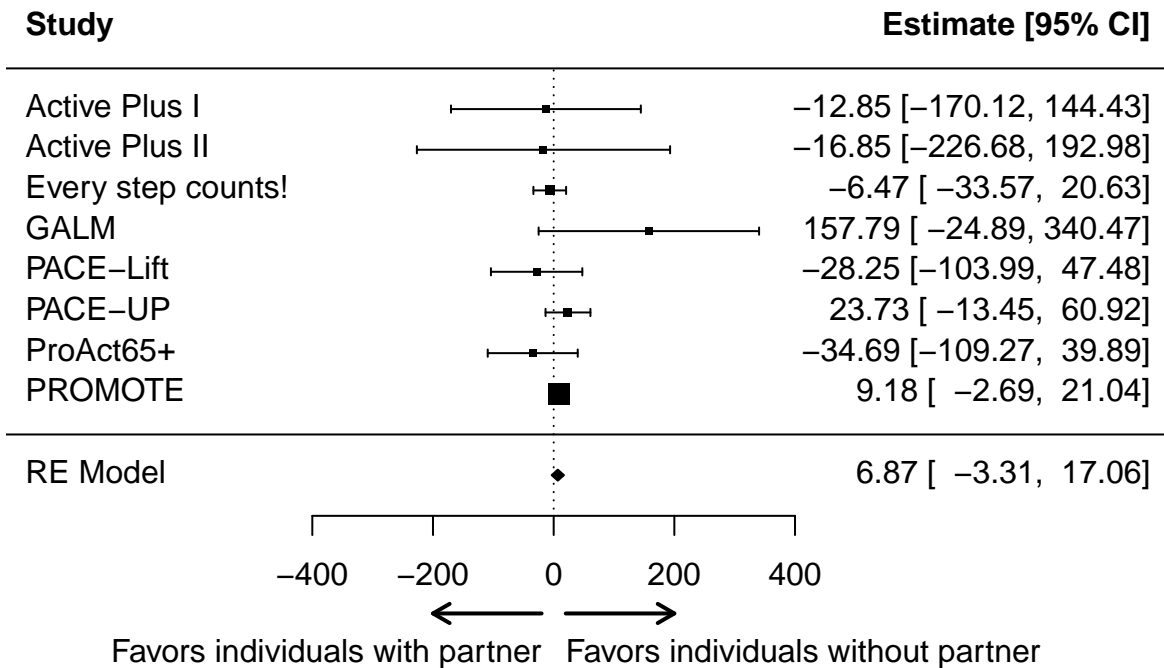
Model D2T1 (data from 8 studies; 7 randomized, 1 non-randomized; 3 with objective physical activity measure, 5 with subjective physical activity measure): The moderated effect of the intervention through marital status (reference: with partner) at T1, adjusted for physical activity level at T0, age, gender, and the condition x gender interaction

```
mod_mar_con_D2T1 = rma(yi=data_EQUAL_meta$X_MAR_CON_D2T1,
                      sei=data_EQUAL_meta$X_MAR_CON_D2T1/data_EQUAL_meta$t_X_MAR_CON_D2T1,
                      method='DL',slab=Study)
summary(mod_mar_con_D2T1)
```

```
##
## Random-Effects Model (k = 8; tau^2 estimator: DL)
##
##   logLik  deviance      AIC      BIC     AICc
## -38.9165   6.6169  81.8331  81.9919  84.2331
##
## tau^2 (estimated amount of total heterogeneity): 0 (SE = 234.9657)
## tau (square root of estimated tau^2 value):      0
## I^2 (total heterogeneity / total variability):   0.00%
## H^2 (total variability / sampling variability):   1.00
##
## Test for Heterogeneity:
## Q(df = 7) = 6.6169, p-val = 0.4698
##
## Model Results:
##
## estimate      se      zval      pval      ci.lb      ci.ub
```

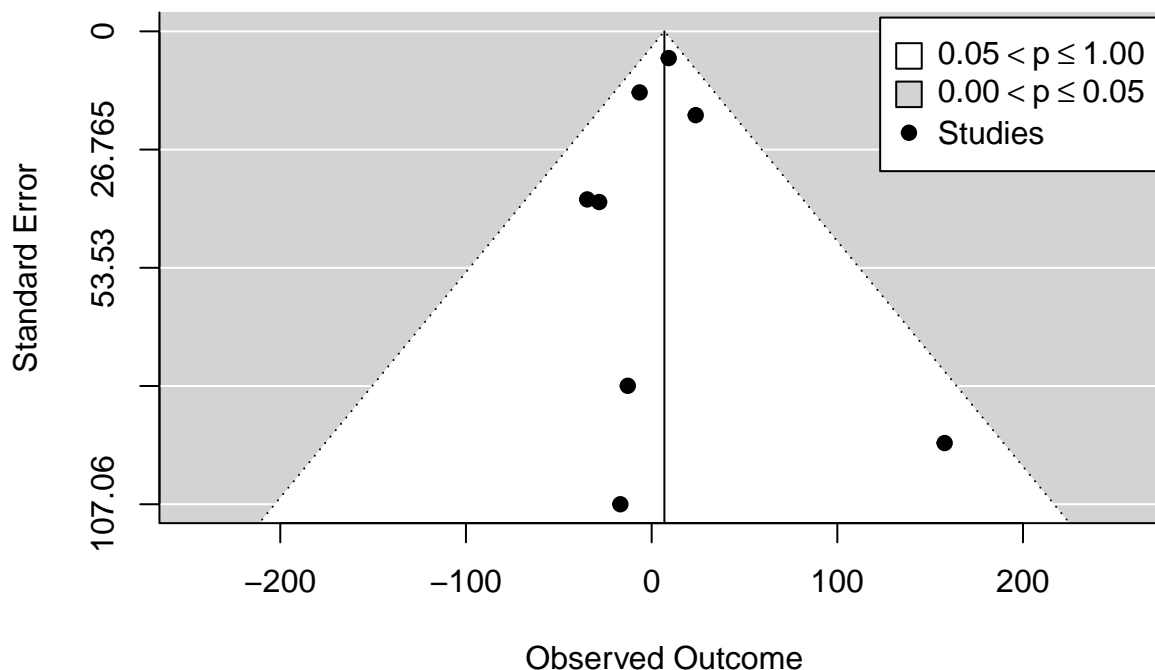
```
## 6.8709 5.1968 1.3221 0.1861 -3.3147 17.0565
##
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
forest(mod_mar_con_D2T1,main="Forest plot",header='Study',xlab='')
mtext(c("Favors individuals with partner", "Favors individuals without partner"),
      side=1, line=3, at=c(-20,20),adj=c(1,0))
arrows(x0=c(-20,20), y0=-4.4, x1=c(-200, 200), y1=-4.4, length=0.1, lwd=2, xpd=TRUE)
```

Forest plot



```
funnel(mod_mar_con_D2T1,legend=TRUE,main='Funnel plot')
```

Funnel plot



Model DOT2 (data from 5 studies; 5 randomized, 0 non-randomized; 2 with objective physical activity measure, 3 with subjective physical activity measure): The moderated effect of the intervention through marital status (reference: with partner) at T2, adjusted for physical activity level at T0 and age

```
mod_mar_con_DOT2 = rma(yi=data_EQUAL_meta$X_MAR_CON_DOT2,
                      sei=data_EQUAL_meta$X_MAR_CON_DOT2/data_EQUAL_meta$t_X_MAR_CON_DOT2,
                      method='DL',slab=Study)
```

```
## Warning in rma(yi = data_EQUAL_meta$X_MAR_CON_DOT2, sei =
## data_EQUAL_meta$X_MAR_CON_DOT2/data_EQUAL_meta$t_X_MAR_CON_DOT2, : Studies with
## NAs omitted from model fitting.
```

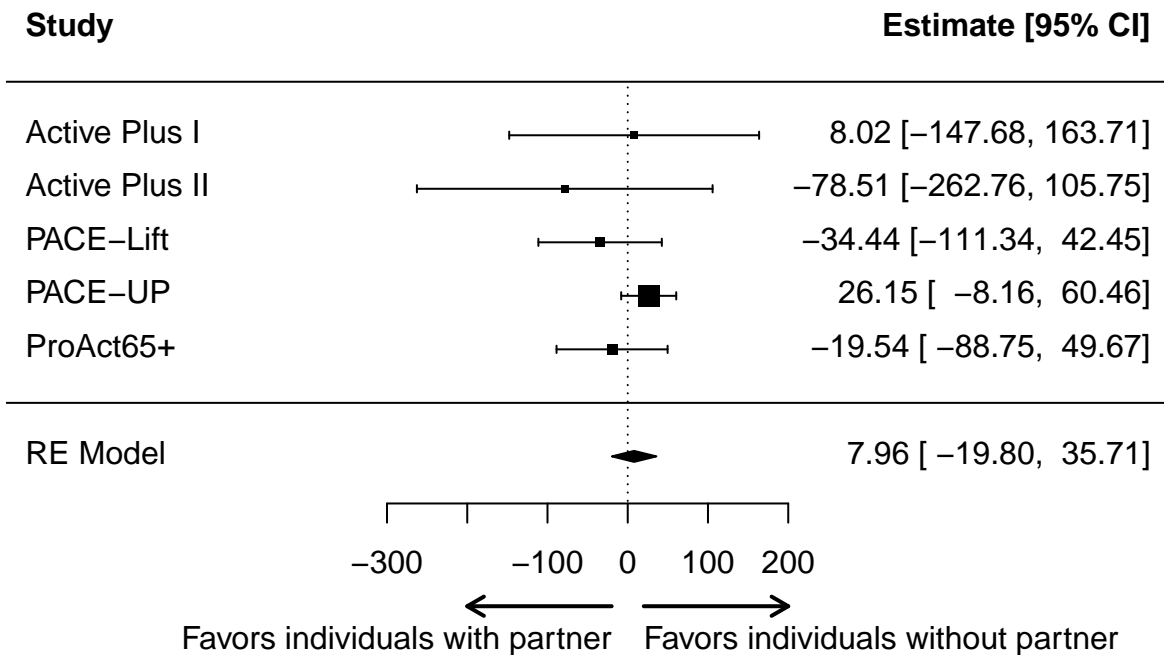
```
summary(mod_mar_con_DOT2)
```

```
##
## Random-Effects Model (k = 5; tau^2 estimator: DL)
##
##   logLik  deviance      AIC      BIC      AICc
## -25.4594   3.7005  54.9188  54.1377  60.9188
##
## tau^2 (estimated amount of total heterogeneity): 0 (SE = 1075.4791)
## tau (square root of estimated tau^2 value):      0
## I^2 (total heterogeneity / total variability):   0.00%
## H^2 (total variability / sampling variability):   1.00
##
## Test for Heterogeneity:
## Q(df = 4) = 3.7005, p-val = 0.4481
##
```

```
## Model Results:
##
## estimate      se      zval      pval      ci.lb      ci.ub
## 7.9573 14.1603 0.5619 0.5742 -19.7964 35.7111
##
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

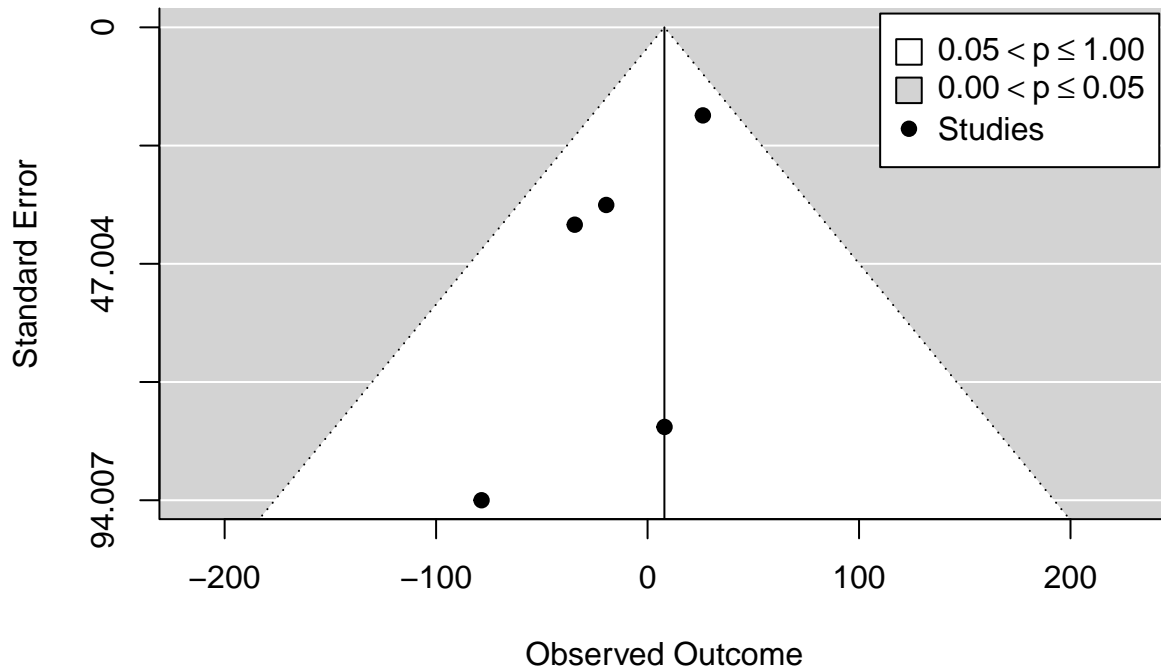
forest(mod_mar_con_DOT2,main="Forest plot",header='Study',xlab='')
mtext(c("Favors individuals with partner", "Favors individuals without partner"),
      side=1, line=3, at=c(-20,20),adj=c(1,0))
arrows(x0=c(-20,20), y0=-3.8, x1=c(-200, 200), y1=-3.8, length=0.1, lwd=2, xpd=TRUE)
```

Forest plot



```
funnel(mod_mar_con_DOT2,legend=TRUE,main='Funnel plot')
```

Funnel plot



Model D2T2 (data from 5 studies; 5 randomized, 0 non-randomized; 2 with objective physical activity measure, 3 with subjective physical activity measure): The moderated effect of the intervention through marital status (reference: with partner) at T2, adjusted for physical activity level at T0, age, gender, and the condition x gender interaction

```
mod_mar_con_D2T2 = rma(yi=data_EQUAL_meta$X_MAR_CON_D2T2,
                      sei=data_EQUAL_meta$X_MAR_CON_D2T2/data_EQUAL_meta$t_X_MAR_CON_D2T2,
                      method='DL',slab=Study)
```

```
## Warning in rma(yi = data_EQUAL_meta$X_MAR_CON_D2T2, sei =
## data_EQUAL_meta$X_MAR_CON_D2T2/data_EQUAL_meta$t_X_MAR_CON_D2T2, : Studies with
## NAs omitted from model fitting.
```

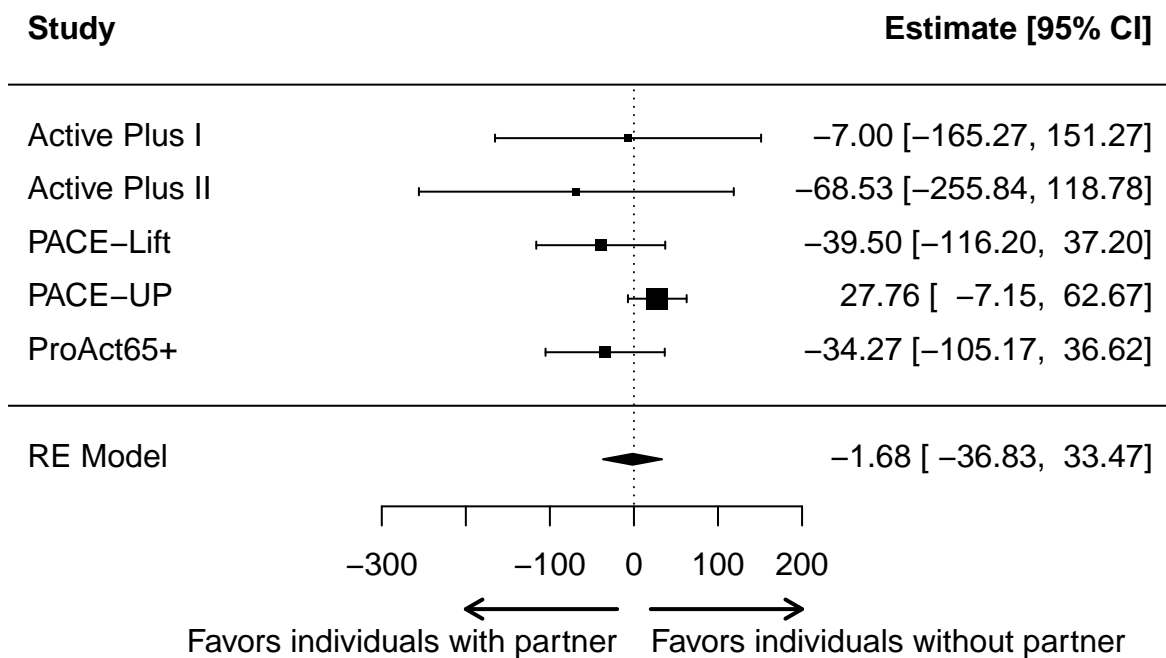
```
summary(mod_mar_con_D2T2)
```

```
##
## Random-Effects Model (k = 5; tau^2 estimator: DL)
##
##   logLik  deviance      AIC      BIC      AICc
## -25.9086   4.4550  55.8172  55.0361  61.8172
##
## tau^2 (estimated amount of total heterogeneity): 280.1181 (SE = 1314.5422)
## tau (square root of estimated tau^2 value):      16.7367
## I^2 (total heterogeneity / total variability):   15.20%
## H^2 (total variability / sampling variability):   1.18
##
## Test for Heterogeneity:
## Q(df = 4) = 4.7170, p-val = 0.3176
```

```
##
## Model Results:
##
## estimate      se      zval    pval    ci.lb    ci.ub
## -1.6785  17.9354  -0.0936  0.9254  -36.8312  33.4742
##
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

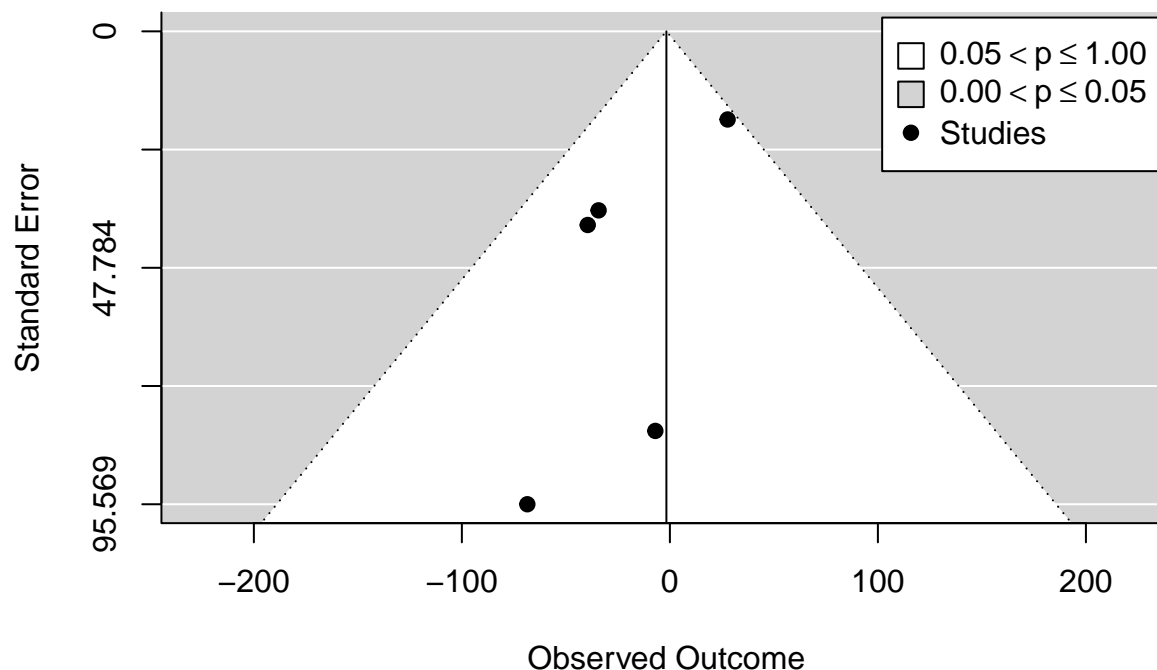
```
forest(mod_mar_con_D2T2,main="Forest plot",header='Study',xlab='')
mtext(c("Favors individuals with partner", "Favors individuals without partner"),
      side=1, line=3, at=c(-20,20),adj=c(1,0))
arrows(x0=c(-20,20), y0=-3.8, x1=c(-200, 200), y1=-3.8, length=0.1, lwd=2, xpd=TRUE)
```

Forest plot



```
funnel(mod_mar_con_D2T2,legend=TRUE,main='Funnel plot')
```


Funnel plot



Income-specific intervention effects

Model EOT1 (data from 2 studies; 2 randomized, 0 non-randomized; 0 with objective physical activity measure, 2 with subjective physical activity measure): The moderated effect of the intervention through income (reference: medium/high) at T1, adjusted for physical activity level at T0 and age

```
mod_inc_con_EOT1 = rma(yi=data_EQUAL_meta$X_INC_CON_EOT1,  
                      sei=data_EQUAL_meta$X_INC_CON_EOT1/data_EQUAL_meta$t_X_INC_CON_EOT1,  
                      method='DL',slab=Study)
```

```
## Warning in rma(yi = data_EQUAL_meta$X_INC_CON_EOT1, sei =  
## data_EQUAL_meta$X_INC_CON_EOT1/data_EQUAL_meta$t_X_INC_CON_EOT1, : Studies with  
## NAs omitted from model fitting.
```

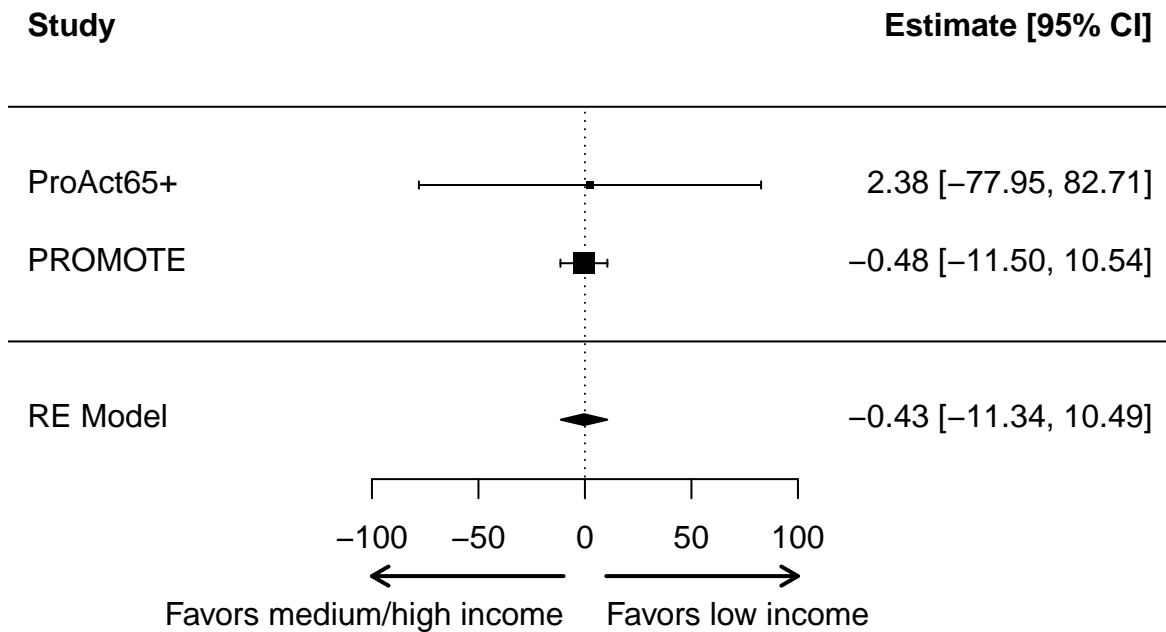
```
summary(mod_inc_con_EOT1)
```

```
##  
## Random-Effects Model (k = 2; tau^2 estimator: DL)  
##  
##   logLik deviance      AIC      BIC      AICc  
## -7.2803  0.0048  18.5606  15.9469  30.5606  
##  
## tau^2 (estimated amount of total heterogeneity): 0 (SE = 1210.2026)  
## tau (square root of estimated tau^2 value):      0  
## I^2 (total heterogeneity / total variability):   0.00%  
## H^2 (total variability / sampling variability):   1.00  
##
```

```
## Test for Heterogeneity:
## Q(df = 1) = 0.0048, p-val = 0.9450
##
## Model Results:
##
## estimate      se      zval      pval      ci.lb      ci.ub
## -0.4257  5.5706  -0.0764  0.9391  -11.3440  10.4925
##
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

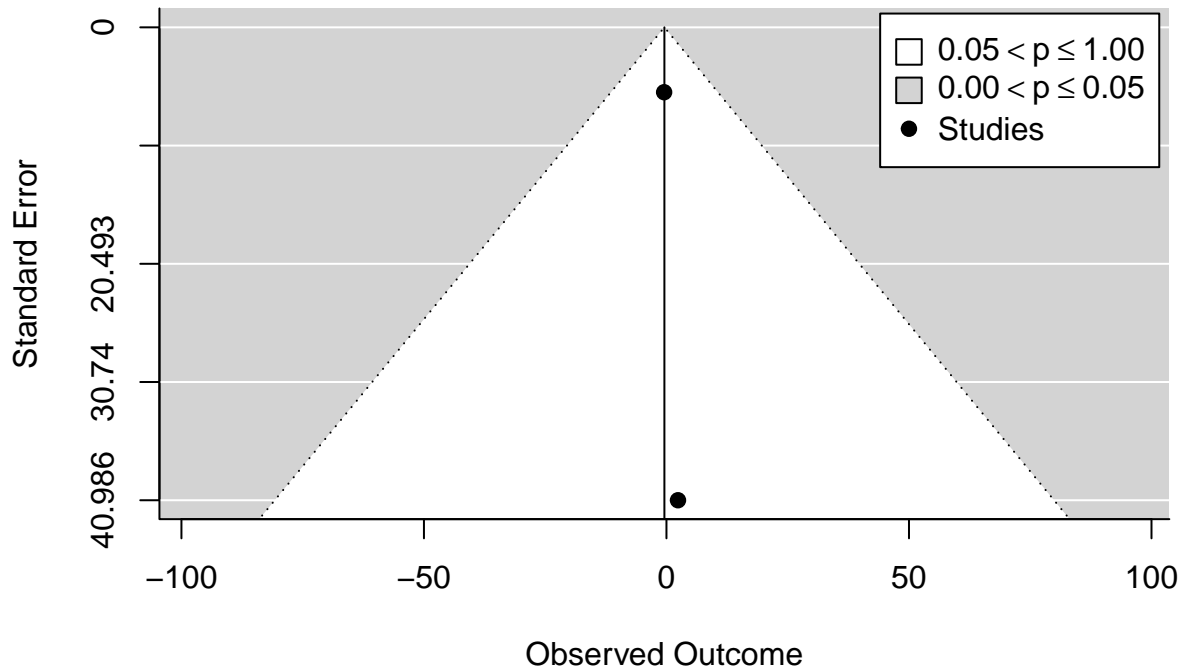
```
forest(mod_inc_con_EOT1,main="Forest plot",header='Study',xlab='')
mtext(c("Favors medium/high income", "Favors low income"),
      side=1, line=3, at=c(-10,10),adj=c(1,0))
arrows(x0=c(-10,10), y0=-3, x1=c(-100, 100), y1=-3, length=0.1, lwd=2, xpd=TRUE)
```

Forest plot



```
funnel(mod_inc_con_EOT1,legend=TRUE,main='Funnel plot')
```

Funnel plot



Model E2T1 (data from 2 studies; 2 randomized, 0 non-randomized; 0 with objective physical activity measure, 2 with subjective physical activity measure): The moderated effect of the intervention through income (reference: medium/high) at T1, adjusted for physical activity level at T0, age, gender, and the condition x gender interaction

```
mod_inc_con_E2T1 = rma(yi=data_EQUAL_meta$X_INC_CON_E2T1,
                      sei=data_EQUAL_meta$X_INC_CON_E2T1/data_EQUAL_meta$t_X_INC_CON_E2T1,
                      method='DL',slab=Study)
```

```
## Warning in rma(yi = data_EQUAL_meta$X_INC_CON_E2T1, sei =
## data_EQUAL_meta$X_INC_CON_E2T1/data_EQUAL_meta$t_X_INC_CON_E2T1, : Studies with
## NAs omitted from model fitting.
```

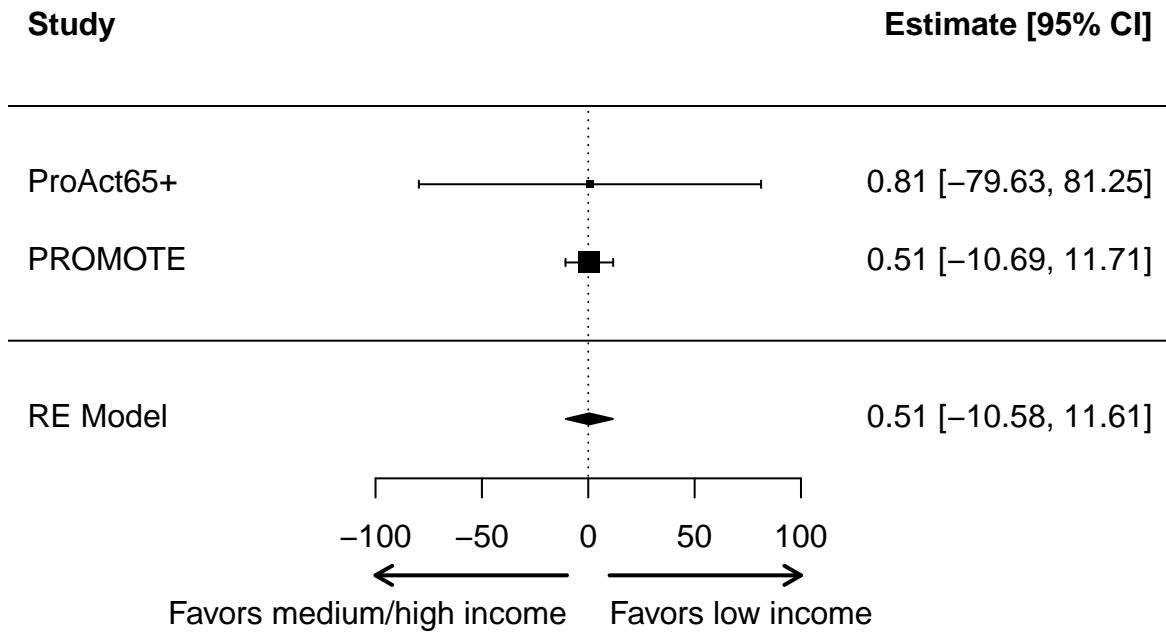
```
summary(mod_inc_con_E2T1)
```

```
##
## Random-Effects Model (k = 2; tau^2 estimator: DL)
##
##   logLik  deviance      AIC      BIC      AICc
## -7.2955   0.0001  18.5910  15.9773  30.5910
##
## tau^2 (estimated amount of total heterogeneity): 0 (SE = 1214.0954)
## tau (square root of estimated tau^2 value):      0
## I^2 (total heterogeneity / total variability):   0.00%
## H^2 (total variability / sampling variability):   1.00
##
## Test for Heterogeneity:
## Q(df = 1) = 0.0001, p-val = 0.9942
```

```
##
## Model Results:
##
## estimate      se      zval      pval      ci.lb      ci.ub
##    0.5126    5.6602    0.0906    0.9278   -10.5811   11.6063
##
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

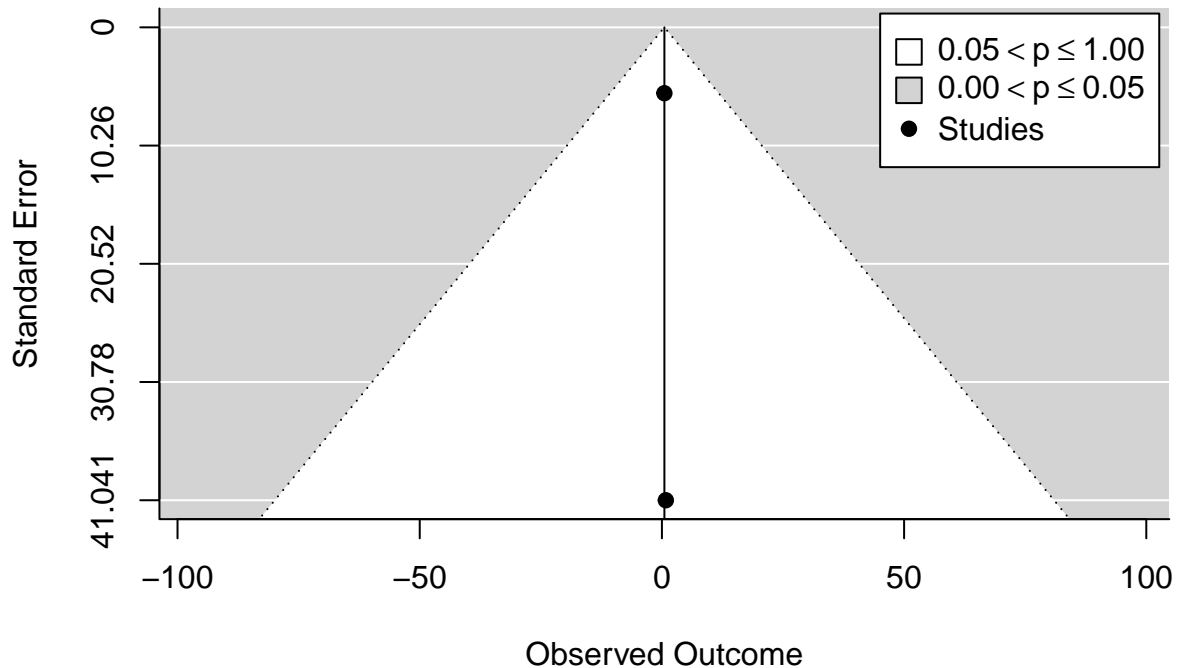
forest(mod_inc_con_E2T1,main="Forest plot",header='Study',xlab='')
mtext(c("Favors medium/high income", "Favors low income"),
      side=1, line=3, at=c(-10,10),adj=c(1,0))
arrows(x0=c(-10,10), y0=-3, x1=c(-100, 100), y1=-3, length=0.1, lwd=2, xpd=TRUE)
```

Forest plot



```
funnel(mod_inc_con_E2T1,legend=TRUE,main='Funnel plot')
```

Funnel plot



Area deprivation-specific intervention effects

Model F0T1 (data from 3 studies; 3 randomized, 0 non-randomized; 2 with objective physical activity measure, 1 with subjective physical activity measure): The moderated effect of the intervention through area deprivation (reference: medium/low) at T1, adjusted for physical activity level at T0 and age

```
mod_imd_con_FOT1 = rma(yi=data_EQUAL_meta$X_IMD_CON_FOT1,  
                      sei=data_EQUAL_meta$X_IMD_CON_FOT1/data_EQUAL_meta$t_X_IMD_CON_FOT1,  
                      method='DL',slab=Study)
```

```
## Warning in rma(yi = data_EQUAL_meta$X_IMD_CON_FOT1, sei =  
## data_EQUAL_meta$X_IMD_CON_FOT1/data_EQUAL_meta$t_X_IMD_CON_FOT1, : Studies with  
## NAs omitted from model fitting.
```

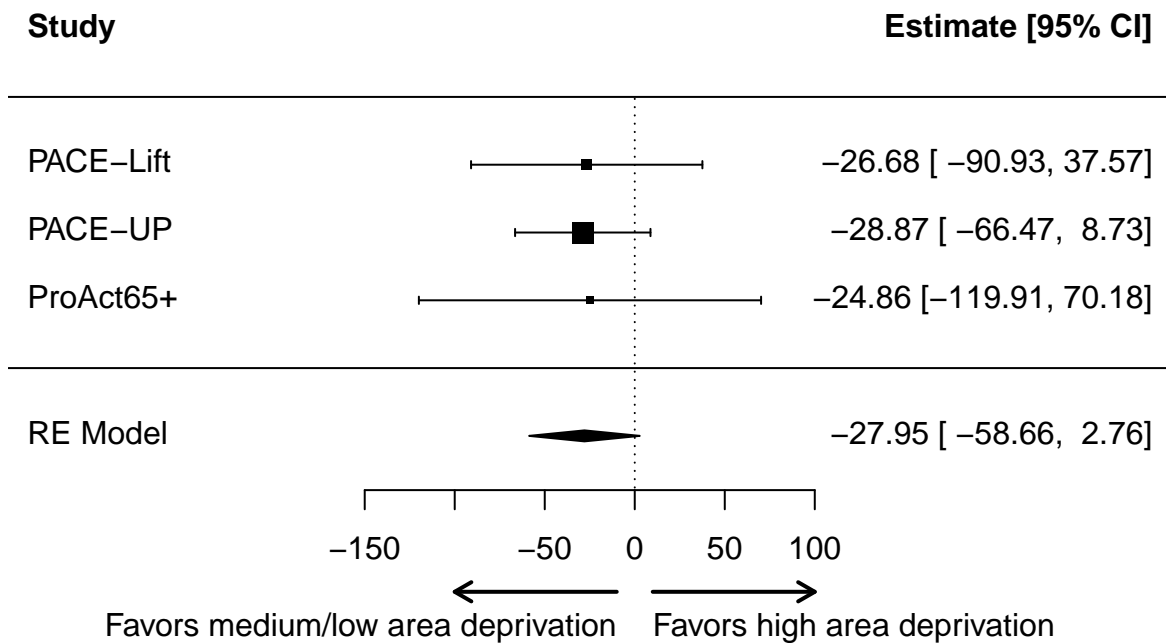
```
summary(mod_imd_con_FOT1)
```

```
##  
## Random-Effects Model (k = 3; tau^2 estimator: DL)  
##  
## logLik deviance AIC BIC AICc  
## -13.0862 0.0079 30.1724 28.3696 42.1724  
##  
## tau^2 (estimated amount of total heterogeneity): 0 (SE = 998.3920)  
## tau (square root of estimated tau^2 value): 0  
## I^2 (total heterogeneity / total variability): 0.00%  
## H^2 (total variability / sampling variability): 1.00  
##
```

```
## Test for Heterogeneity:
## Q(df = 2) = 0.0079, p-val = 0.9961
##
## Model Results:
##
## estimate      se      zval    pval    ci.lb    ci.ub
## -27.9503  15.6696  -1.7837  0.0745  -58.6621  2.7615
##
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

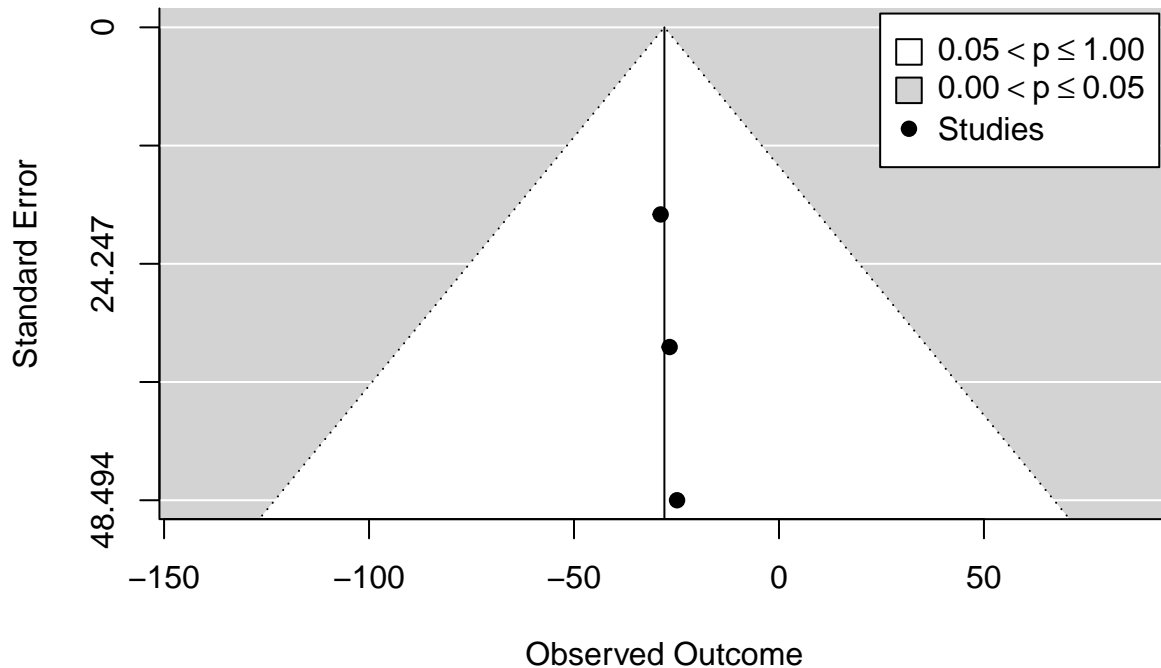
```
forest(mod_imd_con_FOT1,main="Forest plot",header='Study',xlab='')
mtext(c("Favors medium/low area deprivation", "Favors high area deprivation"),
      side=1, line=3, at=c(-10,10),adj=c(1,0))
arrows(x0=c(-10,10), y0=-3.3, x1=c(-100, 100), y1=-3.3, length=0.1, lwd=2, xpd=TRUE)
```

Forest plot



```
funnel(mod_imd_con_FOT1,legend=TRUE,main='Funnel plot')
```

Funnel plot



Model F2T1 (data from 3 studies; 3 randomized, 0 non-randomized; 2 with objective physical activity measure, 1 with subjective physical activity measure): The moderated effect of the intervention through area deprivation (reference: medium/low) at T1, adjusted for physical activity level at T0, age, gender, and the condition x gender interaction

```
mod_imd_con_F2T1 = rma(yi=data_EQUAL_meta$X_IMD_CON_F2T1,
                      sei=data_EQUAL_meta$X_IMD_CON_F2T1/data_EQUAL_meta$t_X_IMD_CON_F2T1,
                      method='DL',slab=Study)
```

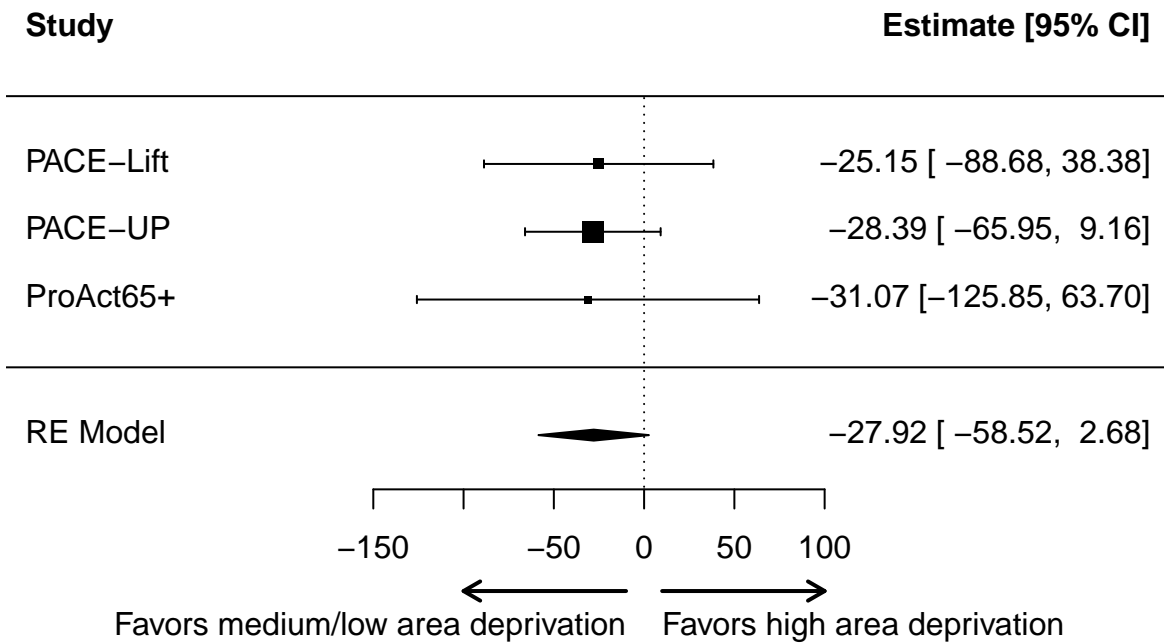
```
## Warning in rma(yi = data_EQUAL_meta$X_IMD_CON_F2T1, sei =
## data_EQUAL_meta$X_IMD_CON_F2T1/data_EQUAL_meta$t_X_IMD_CON_F2T1, : Studies with
## NAs omitted from model fitting.
```

```
summary(mod_imd_con_F2T1)
```

```
##
## Random-Effects Model (k = 3; tau^2 estimator: DL)
##
##   logLik deviance      AIC      BIC      AICc
## -13.0729  0.0122  30.1459  28.3431  42.1459
##
## tau^2 (estimated amount of total heterogeneity): 0 (SE = 985.3183)
## tau (square root of estimated tau^2 value):      0
## I^2 (total heterogeneity / total variability):   0.00%
## H^2 (total variability / sampling variability):   1.00
##
## Test for Heterogeneity:
## Q(df = 2) = 0.0122, p-val = 0.9939
```

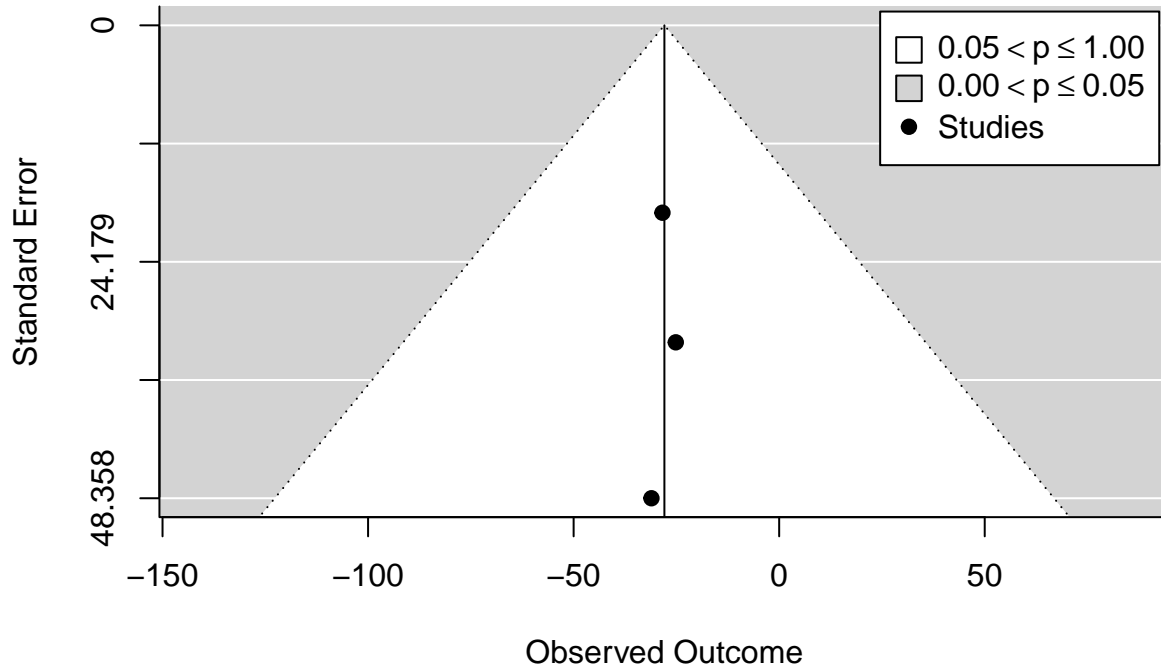
```
##
## Model Results:
##
## estimate      se      zval    pval    ci.lb  ci.ub
## -27.9203  15.6111  -1.7885  0.0737  -58.5175  2.6769
##
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
forest(mod_imd_con_F2T1,main="Forest plot",header='Study',xlab='')
mtext(c("Favors medium/low area deprivation", "Favors high area deprivation"),
      side=1, line=3, at=c(-10,10),adj=c(1,0))
arrows(x0=c(-10,10), y0=-3.3, x1=c(-100, 100), y1=-3.3, length=0.1, lwd=2, xpd=TRUE)
```

Forest plot



```
funnel(mod_imd_con_F2T1,legend=TRUE,main='Funnel plot')
```


Funnel plot



Model FOT2 (data from 3 studies; 3 randomized, 0 non-randomized; 2 with objective physical activity measure, 1 with subjective physical activity measure): The moderated effect of the intervention through area deprivation (reference: medium/low) at T2, adjusted for physical activity level at T0 and age

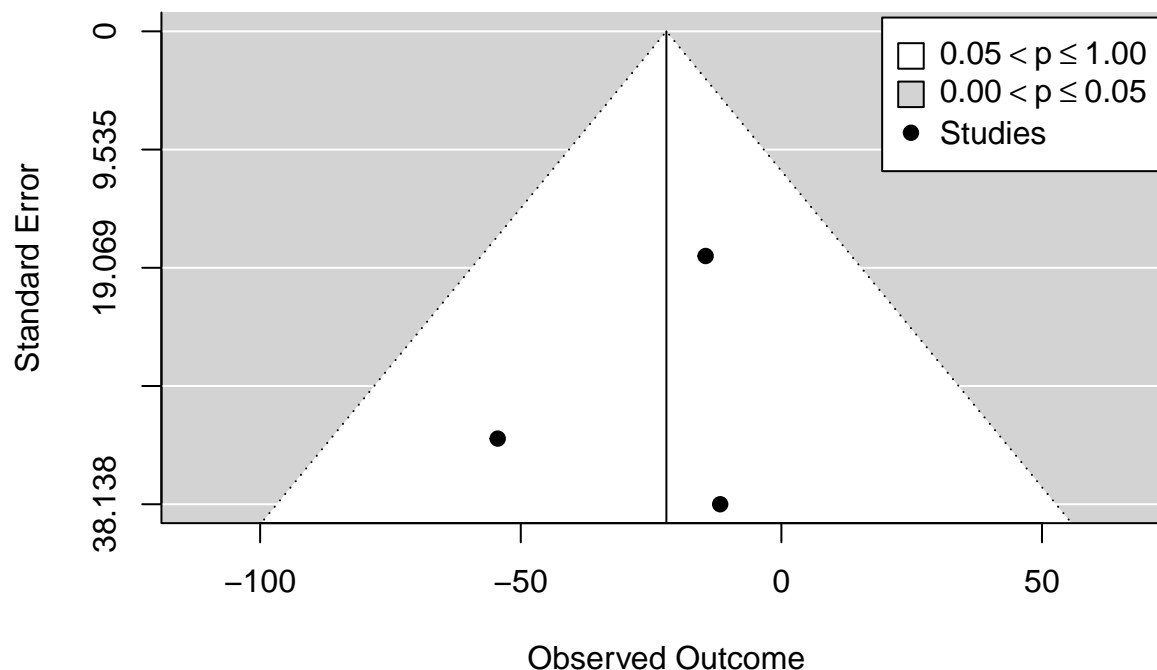
```
mod_imd_con_FOT2 = rma(yi=data_EQUAL_meta$X_IMD_CON_FOT2,
                      sei=data_EQUAL_meta$X_IMD_CON_FOT2/data_EQUAL_meta$t_X_IMD_CON_FOT2,
                      method='DL',slab=Study)
```

```
## Warning in rma(yi = data_EQUAL_meta$X_IMD_CON_FOT2, sei =
## data_EQUAL_meta$X_IMD_CON_FOT2/data_EQUAL_meta$t_X_IMD_CON_FOT2, : Studies with
## NAs omitted from model fitting.
```

```
summary(mod_imd_con_FOT2)
```

```
##
## Random-Effects Model (k = 3; tau^2 estimator: DL)
##
##   logLik deviance      AIC      BIC      AICc
## -13.3949  1.2164  30.7897  28.9869  42.7897
##
## tau^2 (estimated amount of total heterogeneity): 0 (SE = 838.9142)
## tau (square root of estimated tau^2 value):      0
## I^2 (total heterogeneity / total variability):    0.00%
## H^2 (total variability / sampling variability):    1.00
##
## Test for Heterogeneity:
## Q(df = 2) = 1.2164, p-val = 0.5443
##
```


Funnel plot



Model F2T2 (data from 3 studies; 3 randomized, 0 non-randomized; 2 with objective physical activity measure, 1 with subjective physical activity measure): The moderated effect of the intervention through area deprivation (reference: medium/low) at T2, adjusted for physical activity level at T0, age, gender, and the condition x gender interaction

```
mod_imd_con_F2T2 = rma(yi=data_EQUAL_meta$X_IMD_CON_F2T2,
                      sei=data_EQUAL_meta$X_IMD_CON_F2T2/data_EQUAL_meta$t_X_IMD_CON_F2T2,
                      method='DL',slab=Study)
```

```
## Warning in rma(yi = data_EQUAL_meta$X_IMD_CON_F2T2, sei =
## data_EQUAL_meta$X_IMD_CON_F2T2/data_EQUAL_meta$t_X_IMD_CON_F2T2, : Studies with
## NAs omitted from model fitting.
```

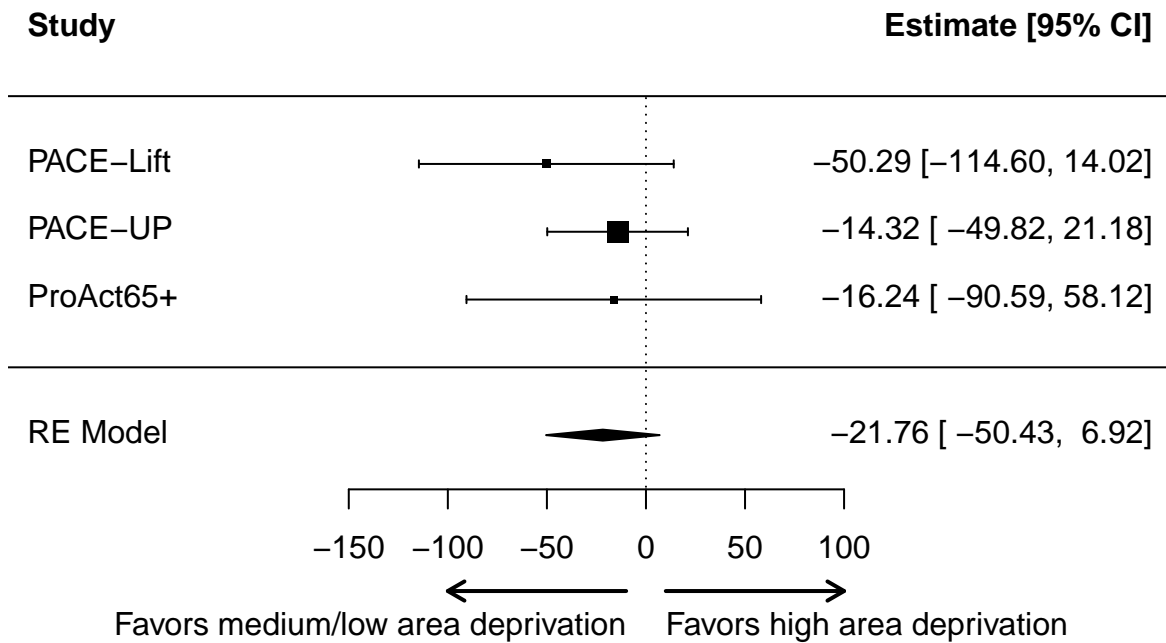
```
summary(mod_imd_con_F2T2)
```

```
##
## Random-Effects Model (k = 3; tau^2 estimator: DL)
##
##   logLik deviance      AIC      BIC      AICc
## -13.2531  0.9462  30.5063  28.7035  42.5063
##
## tau^2 (estimated amount of total heterogeneity): 0 (SE = 835.0351)
## tau (square root of estimated tau^2 value):      0
## I^2 (total heterogeneity / total variability):   0.00%
## H^2 (total variability / sampling variability):   1.00
##
## Test for Heterogeneity:
## Q(df = 2) = 0.9462, p-val = 0.6231
```

```
##
## Model Results:
##
## estimate      se      zval    pval    ci.lb    ci.ub
## -21.7569  14.6297  -1.4872  0.1370  -50.4305  6.9168
##
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

forest(mod_imd_con_F2T2,main="Forest plot",header='Study',xlab='')
mtext(c("Favors medium/low area deprivation", "Favors high area deprivation"),
      side=1, line=3, at=c(-10,10),adj=c(1,0))
arrows(x0=c(-10,10), y0=-3.3, x1=c(-100, 100), y1=-3.3, length=0.1, lwd=2, xpd=TRUE)
```

Forest plot



```
funnel(mod_imd_con_F2T2,legend=TRUE,main='Funnel plot')
```

Funnel plot

