Behaviour Change Meta-regression Models

Controlling for comparator use of BCT/intervention function using revised method

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Covariates:

Variable	Categories	Label
iif1	Yes_No	IIF1
iif2	Yes_No	IIF2
iif3	Yes_No	IIF3
iif4	Yes_No	IIF4
iif5	Yes_No	IIF5
iif6	Yes_No	IIF6
iif7	Yes_No	IIF7
iif8	Yes_No	IIF8
iif9	Yes_No	IIF9
itb	Yes_No	ITB
Cluster1_SS	Yes_No	Cluster1: Social Support
Cluster2_Reg	Yes_No	Cluster2: Regulation
Cluster3_FM	Yes_No	Cluster3: Feedback & Monitoring
Cluster4_Asc	Yes_No	Cluster4: Associations
Cluster5_RS	Yes_No	Cluster5: Repetition and Substitutions
Cluster6_Ant	Yes_No	Cluster6: Antecedents
Cluster7_SK	Yes_No	Cluster7: Shaping Knowledge
Cluster8_SB	Yes_No	Cluster8: Self-belief
Cluster9_SC	Yes_No	Cluster9: Scheduled Consequences
Cluster10_RT	Yes_No	Cluster10: Reward & Threat
Cluster11_GP	Yes_No	Cluster11: Goals & Planning
Cluster12_CO	Yes_No	Cluster12: Comparison of Outcomes
Cluster13_Id	Yes_No	Cluster13: Identity
Cluster14_NC	Yes_No	Cluster14: Natural Consequences
Cluster15_CB	Yes_No	Cluster15: Comparison of Behaviour
Cluster16_CL	Yes_No	Cluster16: Covert Learning

Revised analyses - controlling for Cluster/intervention function in control group using revised method

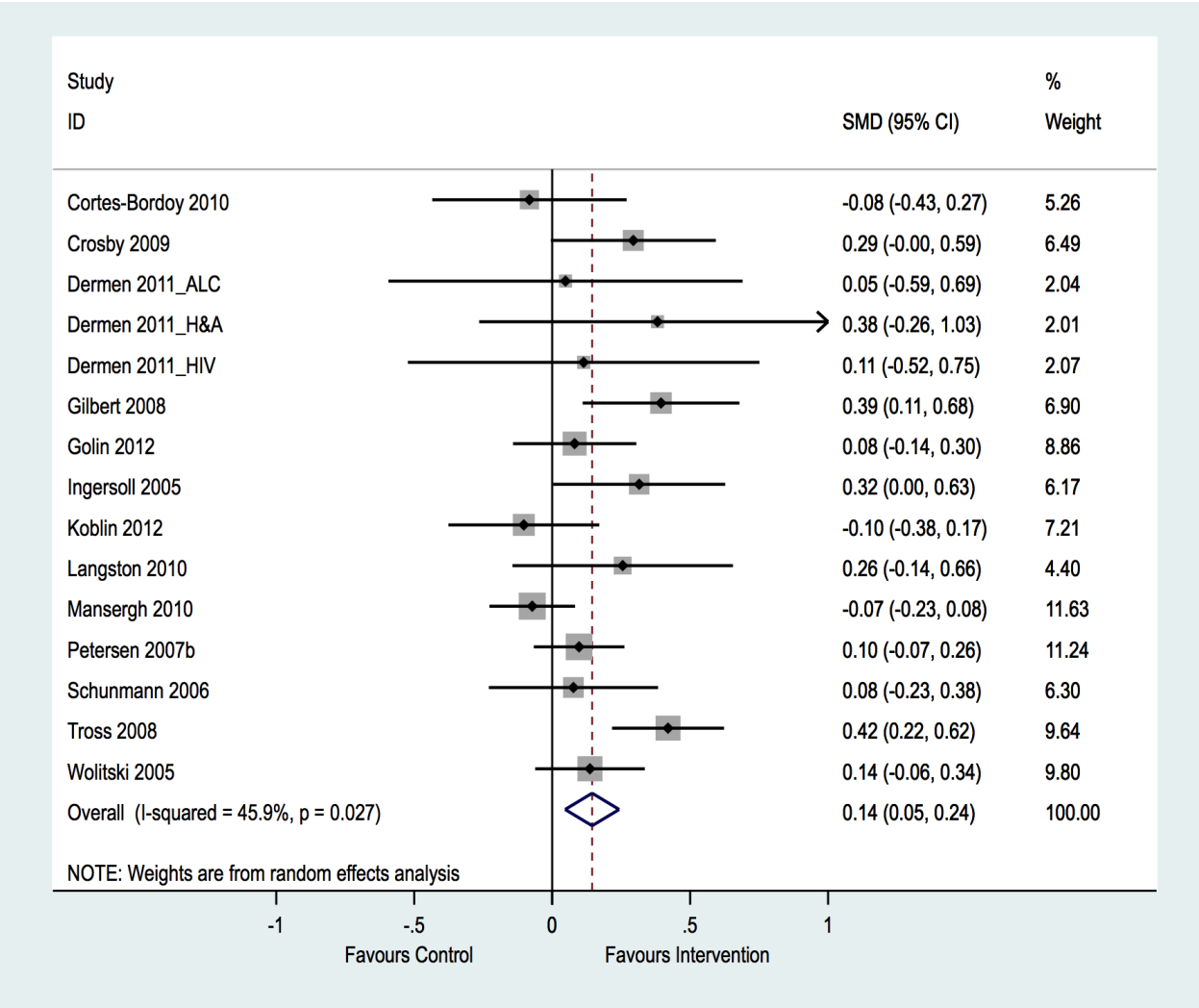
```
Revised method involved creating a new dummy variable for each cluster/IF where, for example:

Cluster1[interv]=0 & Cluster1[control]=0, then Rev_Cluster1 was coded 0
Cluster1[interv]=1 & Cluster1[control]=0, then Rev_Cluster1 was coded 1
Cluster1[interv]=1 & Cluster1[control]=1, then Rev_Cluster1 was coded 0
Cluster1[interv]=0 & Cluster1[control]=1, then Rev_Cluster1 was coded 0
```

SEXUAL HEALTH

Meta-analysis

```
. metaan ES _SE if Target_Beh==1, dl forest label(StudyID)



DerSimonian-Laird random-effects method selected

------------------------------------------------------------------

        Study        |   Effect   [95% Conf. Interval]   % Weight

---------------------+--------------------------------------------

Cortes-Bordoy 2010   |   -0.082     -0.435     0.270       5.26

Crosby 2009          |    0.294     -0.005     0.593       6.49

Dermen 2011_ALC      |    0.048     -0.593     0.690       2.04

Dermen 2011_H&A      |    0.382     -0.265     1.028       2.01

Dermen 2011_HIV      |    0.114     -0.523     0.751       2.07

Gilbert 2008         |    0.395      0.110     0.679       6.90

Golin 2012           |    0.081     -0.142     0.305       8.86

Ingersoll 2005       |    0.315      0.004     0.627       6.17

Koblin 2012          |   -0.103     -0.376     0.171       7.21

Langston 2010        |    0.256     -0.144     0.655       4.40

Mansergh 2010        |   -0.072     -0.227     0.083      11.63

Petersen 2007b       |    0.098     -0.067     0.262      11.24

Schunmann 2006       |    0.077     -0.230     0.384       6.30

Tross 2008           |    0.420      0.217     0.623       9.64

Wolitski 2005        |    0.137     -0.062     0.336       9.80

---------------------+--------------------------------------------

Overall effect (dl)  |    0.145      0.047     0.243     100.00

------------------------------------------------------------------
```

Heterogeneity chi-squared = 25.88 (d.f. = 14) p = 0.027
I-squared (variation in ES attributable to heterogeneity) = 45.9% (95% CI = 0 to 69.06)
Estimate of between-study variance Tau-squared = 0.0152
Test of ES=0 : z= 2.90 p = 0.004

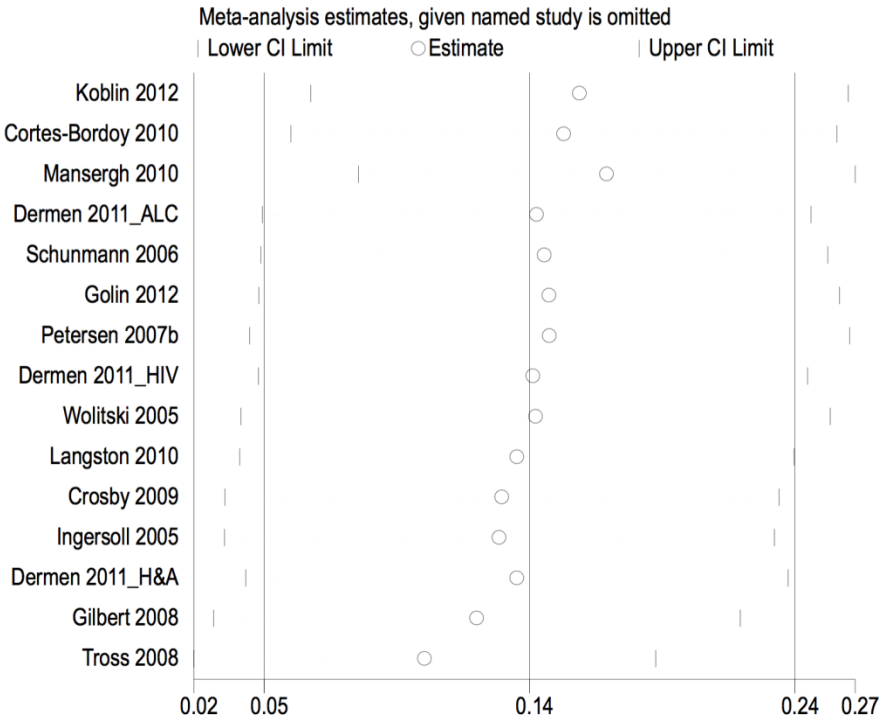


Outliers

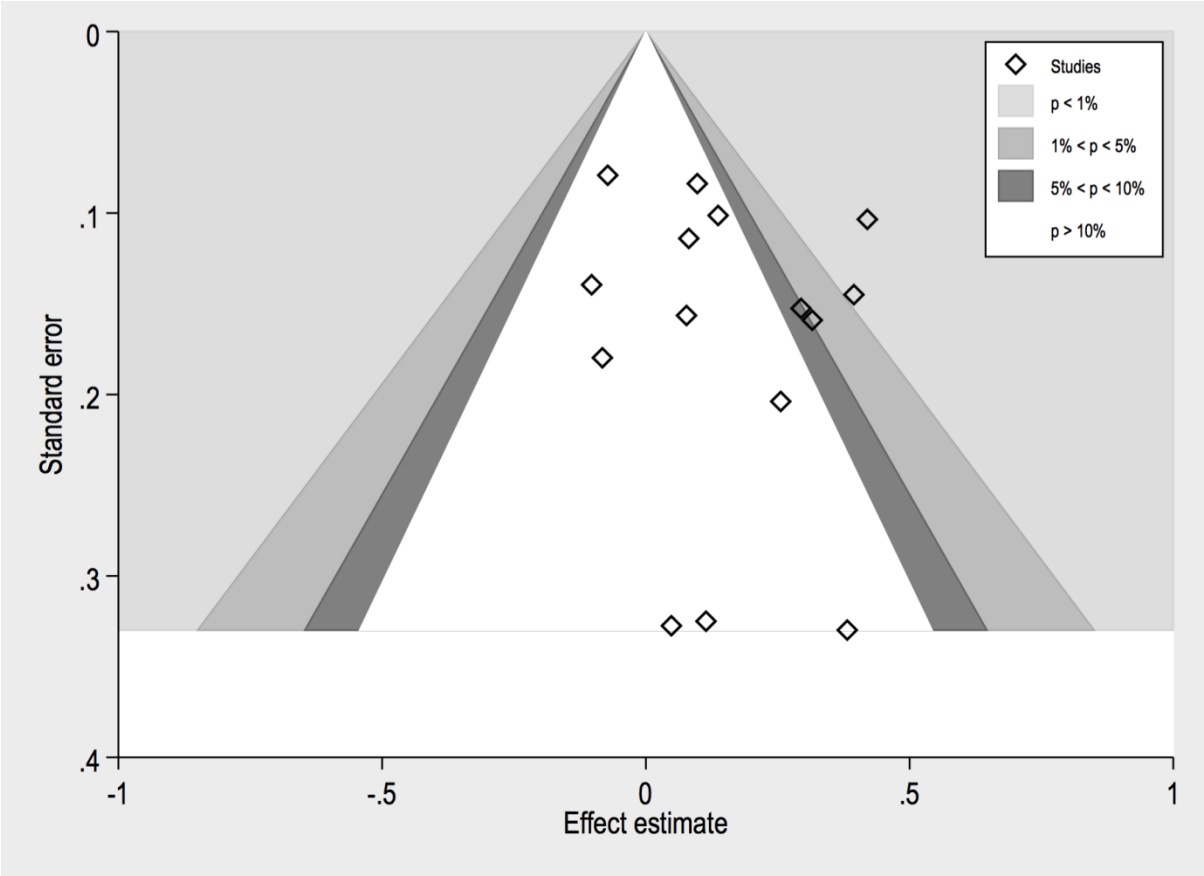
```
. metaninf ES _SE if Target_Beh==1, label(namevar=StudyID) random


------------------------------------------------------------------------------

 Study omitted      |   Estimate       [95%  Conf.  Interval]

-------------------+----------------------------------------------------------

 Koblin 2012        |   .16326833      .06408713    .26244953

 Cortes-Bordoy 2010|   .15752694      .05670537    .25834849

 Mansergh 2010      |   .17335628      .08168732    .26502526

 Dermen 2011_ALC    |   .14747903      .04624901    .24870904

 Schunmann 2006     |   .15030524      .04572014    .25489035

 Golin 2012         |   .15208486      .04493742    .25923228
```

```
 Petersen 2007b     |   .15221345      .04151234    .26291457
 Dermen 2011_HIV    |   .14610371      .044737      .24747041
 Wolitski 2005      |   .14708555      .03832681    .2558443
 Langston 2010      |   .14017203      .03786758    .24247648
 Crosby 2009        |   .13468958      .03242434    .23695484
 Ingersoll 2005     |   .13371125      .03220603    .23521645
 Dermen 2011_H&A    |   .14017621      .04007941    .240273
 Gilbert 2008       |   .12541217      .02818007    .22264427
 Tross 2008         |   .10614477      .02090535    .1913842
-------------------+---------------------------------------------------------
 Combined           |   .14484664      .04690475    .24278852
-------------------------------------------------------------------------------
```

No trials had point estimate outside the combined CI.



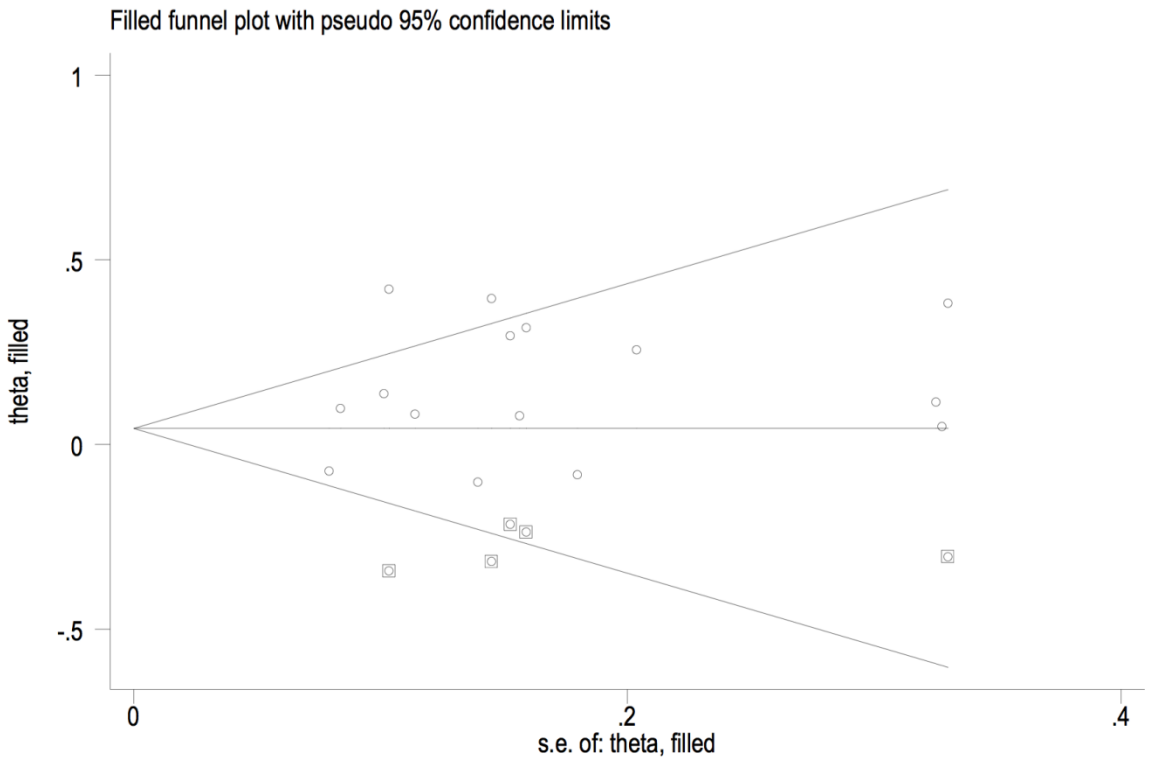
Publication bias




```
. metabias ES _SE          if Target_Beh==1, egger

Note: data input format theta se_theta assumed.

Egger's test for small-study effects:
Regress standard normal deviate of intervention
effect estimate against its standard error

Number of studies =  15                                  Root MSE      =   1.374
------------------------------------------------------------------------------
     Std_Eff |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       slope |   .0330191   .1210846     0.27   0.789    -.2285683    .2946065
        bias |    .781698    .924796     0.85   0.413    -1.216202    2.779598
------------------------------------------------------------------------------
Test of H0: no small-study effects          P = 0.413
```

```
. metatrim ES _SE         if Target_Beh==1, reffect funnel

Note: default data input format (theta, se_theta) assumed.

Meta-analysis

       |  Pooled      95% CI         Asymptotic      No. of
Method |     Est   Lower   Upper  z_value  p_value   studies
-------+-------------------------------------------------------
Fixed  |   0.128   0.061   0.194    3.773    0.000     15
Random |   0.145   0.047   0.243    2.899    0.004

Test for heterogeneity: Q= 25.882 on 14 degrees of freedom (p= 0.027)
Moment-based estimate of between studies variance =  0.015

Trimming estimator: Linear
Meta-analysis type: Random-effects model

iteration |  estimate    Tn    # to trim     diff
----------+-------------------------------------
    1     |    0.145     65         1         120
    2     |    0.106     76         2          22
    3     |    0.074     92         4          32
    4     |    0.055     95         5           6
    5     |    0.039     96         5           2
    6     |    0.039     96         5           0

Filled
Meta-analysis

       |  Pooled      95% CI         Asymptotic      No. of
Method |     Est   Lower   Upper  z_value  p_value   studies
-------+-------------------------------------------------------
Fixed  |   0.039  -0.020   0.098    1.294    0.196     20
```

```
Random |    0.043  -0.069   0.156    0.757    0.449


Test for heterogeneity: Q= 59.253 on 19 degrees of freedom (p= 0.000)

Moment-based estimate of between studies variance =  0.039
```



.

Univariate analyses

Meta-regression of BCT Clusters

```
. *Model Rev_SXH_U1a

.

. tabulate  Rev_Cluster1_SS               if Target_Beh==1


  Cluster1: |

     Social |

  Support - |

Controlling |

        for |

 comparator |

        use |      Freq.     Percent        Cum.

------------+-----------------------------------

          0 |          3       20.00       20.00

          1 |         12       80.00      100.00

------------+-----------------------------------

      Total |         15      100.00


.

. metareg ES  Rev_Cluster1_SS             if Target_Beh==1, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      15

REML estimate of between-study variance               tau2           =   .0188

% residual variation due to heterogeneity             I-squared_res  =  48.93%

Proportion of between-study variance explained        Adj R-squared  = -12.19%

With Knapp-Hartung modification

------------------------------------------------------------------------------

             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

----------------+-------------------------------------------------------------

Rev_Cluster1_SS |   .1054412   .1285212     0.82   0.427    -.1722121    .3830944

          _cons |   .0633084   .1138967     0.56   0.588    -.1827505    .3093672

------------------------------------------------------------------------------
```

```
.
. *Model Rev_SXH_U1b
.
. tabulate  Rev_Cluster2_Reg              if Target_Beh==1


  Cluster2: |
 Regulation |
          - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         13       86.67       86.67
          1 |          2       13.33      100.00
------------+-----------------------------------
      Total |         15      100.00


.
.
. *Model Rev_SXH_U1c
.
. tabulate  Rev_Cluster3_FM               if Target_Beh==1


  Cluster3: |
 Feedback & |
 Monitoring |
          - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |          6       40.00       40.00
```

```
          1 |          9       60.00      100.00
------------+-----------------------------------
      Total |         15      100.00

.
. metareg ES  Rev_Cluster3_FM             if Target_Beh==1, wsse(_SE) knapphartung reml

Meta-regression                                         Number of obs  =      15
REML estimate of between-study variance                 tau2           =  .01932
% residual variation due to heterogeneity               I-squared_res  =  49.76%
Proportion of between-study variance explained          Adj R-squared  = -15.30%
With Knapp-Hartung modification
------------------------------------------------------------------------------
             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
----------------+-------------------------------------------------------------
Rev_Cluster3_FM |   .0356279   .1078827     0.33   0.746    -.1974384    .2686942
          _cons |   .1254331   .0825175     1.52   0.152    -.0528351    .3037013
------------------------------------------------------------------------------

.
. *Model Rev_SXH_U1d
.
. tabulate  Rev_Cluster4_Asc              if Target_Beh==1

  Cluster4: |
Association |
        s - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         15      100.00      100.00
------------+-----------------------------------
```

```
      Total |         15      100.00

.
. *Model Rev_SXH_U1e
.
. tabulate  Rev_Cluster5_RS               if Target_Beh==1

  Cluster5: |
 Repetition |
        and |
Substitutio |
       ns - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         10       66.67       66.67
          1 |          5       33.33      100.00
------------+-----------------------------------
      Total |         15      100.00

.
. metareg ES  Rev_Cluster5_RS             if Target_Beh==1, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =      15
REML estimate of between-study variance               tau2           =  .01947
% residual variation due to heterogeneity             I-squared_res  =  49.75%
Proportion of between-study variance explained        Adj R-squared  = -16.23%
With Knapp-Hartung modification
------------------------------------------------------------------------------
             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
----------------+-------------------------------------------------------------
Rev_Cluster5_RS |   .0152358   .1097235     0.14   0.892    -.2218073     .252279
```

```
          _cons |   .1405269   .0676756     2.08   0.058    -.0056773    .2867312
------------------------------------------------------------------------------


.
. *Model Rev_SXH_U1f
.
. tabulate  Rev_Cluster6_Ant              if Target_Beh==1


  Cluster6: |
Antecedents |
          - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         10       66.67       66.67
          1 |          5       33.33      100.00
------------+-----------------------------------
      Total |         15      100.00


.
. metareg ES  Rev_Cluster6_Ant    if Target_Beh==1, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      15
REML estimate of between-study variance               tau2           =  .01933
% residual variation due to heterogeneity             I-squared_res  =  49.73%
Proportion of between-study variance explained        Adj R-squared  = -15.35%
With Knapp-Hartung modification
------------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------------
Rev_Cluster6_Ant |  -.0194584   .1197784    -0.16   0.873     -.278224    .2393072
           _cons |    .151528   .0622091     2.44   0.030     .0171335    .2859225
```

```
--------------------------------------------------------------------------------

.
. *Model Rev_SXH_U1g
.
. tabulate  Rev_Cluster7_SK               if Target_Beh==1

  Cluster7: |
    Shaping |
Knowledge - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |          9       60.00       60.00
          1 |          6       40.00      100.00
------------+-----------------------------------
      Total |         15      100.00

.
. metareg ES  Rev_Cluster7_SK             if Target_Beh==1, wsse(_SE) knapphartung reml

Meta-regression                                         Number of obs  =      15
REML estimate of between-study variance                 tau2           =  .01871
% residual variation due to heterogeneity               I-squared_res  =  48.40%
Proportion of between-study variance explained          Adj R-squared  = -11.64%
With Knapp-Hartung modification
------------------------------------------------------------------------------
             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
----------------+-------------------------------------------------------------
Rev_Cluster7_SK |   -.043706   .1054759    -0.41   0.685    -.2715729    .1841609
          _cons |   .1687875   .0760099     2.22   0.045     .0045781    .3329969
------------------------------------------------------------------------------
```

```
.

. *Model Rev_SXH_U1h

.

. tabulate  Rev_Cluster8_SB               if Target_Beh==1


  Cluster8: |
Self-belief |
          - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         13       86.67       86.67
          1 |          2       13.33      100.00
------------+-----------------------------------
      Total |         15      100.00


.

.

. *Model Rev_SXH_U1i

.

. tabulate  Rev_Cluster9_SC               if Target_Beh==1


  Cluster9: |
  Scheduled |
Consequence |
        s - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
```

```
          0 |         15      100.00      100.00
------------+-----------------------------------
      Total |         15      100.00


.
.
. *Model Rev_SXH_U1j
.
. tabulate  Rev_Cluster10_RT              if Target_Beh==1


 Cluster10: |
   Reward & |
   Threat - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         13       86.67       86.67
          1 |          2       13.33      100.00
------------+-----------------------------------
      Total |         15      100.00


.
.
. *Model Rev_SXH_U1k
.
. tabulate  Rev_Cluster11_GP              if Target_Beh==1


 Cluster11: |
    Goals & |
 Planning - |
Controlling |
        for |
```

```
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |          7       46.67       46.67
          1 |          8       53.33      100.00
------------+-----------------------------------
      Total |         15      100.00


.
. metareg ES  Rev_Cluster11_GP    if Target_Beh==1, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      15
REML estimate of between-study variance               tau2           =   .0183
% residual variation due to heterogeneity             I-squared_res  =  48.68%
Proportion of between-study variance explained        Adj R-squared  =  -9.22%
With Knapp-Hartung modification
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
Rev_Cluster11_GP |    -.03733   .1143579    -0.33   0.749    -.2843851    .2097252
           _cons |   .1721023   .0956962     1.80   0.095    -.0346367    .3788413
------------------------------------------------------------------------------


.
. *Model Rev_SXH_U11
.
. tabulate  Rev_Cluster12_CO              if Target_Beh==1


 Cluster12: |
 Comparison |
of Outcomes |
          - |
Controlling |
        for |
```

```
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |          9       60.00       60.00
          1 |          6       40.00      100.00
------------+-----------------------------------
      Total |         15      100.00


.
. metareg ES  Rev_Cluster12_CO    if Target_Beh==1, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =      15
REML estimate of between-study variance               tau2           =  .01731
% residual variation due to heterogeneity             I-squared_res  =  46.82%
Proportion of between-study variance explained        Adj R-squared  =  -3.32%
With Knapp-Hartung modification
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
Rev_Cluster12_CO |  -.1289195   .1107053    -1.16   0.265    -.3680838    .1102447
           _cons |   .1868776   .0626164     2.98   0.011      .051603    .3221522
------------------------------------------------------------------------------


.
. *Model Rev_SXH_U1m
.
. tabulate  Rev_Cluster13_Id              if Target_Beh==1


 Cluster13: |
 Identity - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
```

```
------------+-----------------------------------
          0 |         15      100.00      100.00
------------+-----------------------------------
      Total |         15      100.00


.
.
. *Model Rev_SXH_U1n
.
. tabulate  Rev_Cluster14_NC              if Target_Beh==1


 Cluster14: |
    Natural |
Consequence |
        s - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |          9       60.00       60.00
          1 |          6       40.00      100.00
------------+-----------------------------------
      Total |         15      100.00


.
. metareg ES  Rev_Cluster14_NC    if Target_Beh==1, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      15
REML estimate of between-study variance               tau2           =  .01909
% residual variation due to heterogeneity             I-squared_res  =  49.73%
Proportion of between-study variance explained        Adj R-squared  = -13.92%
With Knapp-Hartung modification
------------------------------------------------------------------------------
```

```
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+-------------------------------------------------------------
Rev_Cluster14_NC |  -.0229167   .1165206    -0.20   0.847    -.2746441    .2288107
           _cons |    .152901   .0629725     2.43   0.030     .0168572    .2889447
------------------------------------------------------------------------------


.
. *Model Rev_SXH_U1o
.
. tabulate  Rev_Cluster15_CB              if Target_Beh==1


 Cluster15: |
 Comparison |
         of |
Behaviour - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |          9       60.00       60.00
          1 |          6       40.00      100.00
------------+-----------------------------------
      Total |         15      100.00


.
. metareg ES  Rev_Cluster15_CB    if Target_Beh==1, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      15
REML estimate of between-study variance               tau2           =   .0194
% residual variation due to heterogeneity             I-squared_res  =  49.74%
Proportion of between-study variance explained        Adj R-squared  = -15.81%
With Knapp-Hartung modification
------------------------------------------------------------------------------
```

```
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+----------------------------------------------------------------
Rev_Cluster15_CB |   .0118807   .1084894     0.11   0.914    -.2224965    .2462579
           _cons |   .1415123   .0688854     2.05   0.061    -.0073056    .2903302
------------------------------------------------------------------------------


.
. *Model Rev_SXH_U1p
.
. tabulate  Rev_Cluster16_CL              if Target_Beh==1


 Cluster16: |
     Covert |
 Learning - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         15      100.00      100.00
------------+-----------------------------------
      Total |         15      100.00
```

Meta-regression of Intervention function

```
. *Model Rev_SXH_U2a
.
. tabulate  Rev_iif1                              if Target_Beh==1


   Rev_iif1 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |          7       46.67       46.67
          1 |          8       53.33      100.00
------------+-----------------------------------
```

```
      Total |         15      100.00

.
. metareg ES  Rev_iif1                    if Target_Beh==1, wsse(_SE) knapphartung reml

Meta-regression                                         Number of obs  =      15
REML estimate of between-study variance                 tau2           =  .01797
% residual variation due to heterogeneity               I-squared_res  =  45.51%
Proportion of between-study variance explained          Adj R-squared  =  -7.28%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif1 |  -.0473822   .1044469    -0.45   0.658     -.273026    .1782617
       _cons |   .1682587   .0718181     2.34   0.036     .0131052    .3234122
------------------------------------------------------------------------------

.
. *Model Rev_SXH_U2b
.
. tabulate  Rev_iif2                              if Target_Beh==1

   Rev_iif2 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         11       73.33       73.33
          1 |          4       26.67      100.00
------------+-----------------------------------
      Total |         15      100.00

.
. metareg ES  Rev_iif2                    if Target_Beh==1, wsse(_SE) knapphartung reml

Meta-regression                                         Number of obs  =      15
REML estimate of between-study variance                 tau2           =  .01739
```

```
% residual variation due to heterogeneity             I-squared_res  =  48.86%
Proportion of between-study variance explained        Adj R-squared  =  -3.82%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif2 |  -.0963455   .1601816    -0.60   0.558    -.4423967    .2497058
       _cons |   .1570443   .0550563     2.85   0.014     .0381024    .2759862
------------------------------------------------------------------------------


.
. *Model Rev_SXH_U2c
.
. tabulate  Rev_iif3                              if Target_Beh==1

   Rev_iif3 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         13       86.67       86.67
          1 |          2       13.33      100.00
------------+-----------------------------------
      Total |         15      100.00


.
.
. *Model Rev_SXH_U2d
.
. tabulate  Rev_iif4                              if Target_Beh==1

   Rev_iif4 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         14       93.33       93.33
          1 |          1        6.67      100.00
------------+-----------------------------------
      Total |         15      100.00
```

```
.

.

. *Model Rev_SXH_U2e

.

. tabulate  Rev_iif5                              if Target_Beh==1


   Rev_iif5 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         10       66.67       66.67
          1 |          5       33.33      100.00
------------+-----------------------------------
      Total |         15      100.00


.

. metareg ES Rev_iif5                             if Target_Beh==1, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      15
REML estimate of between-study variance               tau2           =  .01956
% residual variation due to heterogeneity             I-squared_res  =  49.74%
Proportion of between-study variance explained        Adj R-squared  = -16.77%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif5 |   .0229273   .1088628     0.21   0.836    -.2122564     .258111
       _cons |   .1371735   .0688713     1.99   0.068     -.011614    .2859609
------------------------------------------------------------------------------


.

. *Model Rev_SXH_U2f

.

. tabulate  Rev_iif6                              if Target_Beh==1
```

```
   Rev_iif6 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         15      100.00      100.00
------------+-----------------------------------
      Total |         15      100.00


.
.
. *Model Rev_SXH_U2g
.
. tabulate Rev_iif7                               if Target_Beh==1


   Rev_iif7 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         12       80.00       80.00
          1 |          3       20.00      100.00
------------+-----------------------------------
      Total |         15      100.00


.
. metareg ES  Rev_iif7                    if Target_Beh==1, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      15
REML estimate of between-study variance               tau2           =  .01965
% residual variation due to heterogeneity             I-squared_res  =  49.62%
Proportion of between-study variance explained        Adj R-squared  = -17.27%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif7 |   .0188494   .1204664     0.16   0.878    -.2414025    .2791012
       _cons |   .1413102   .0624413     2.26   0.041     .0064139    .2762064
------------------------------------------------------------------------------
```

```
.
. *Model Rev_SXH_U2h
.
. tabulate  Rev_iif8                              if Target_Beh==1

   Rev_iif8 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         12       80.00       80.00
          1 |          3       20.00      100.00
------------+-----------------------------------
      Total |         15      100.00

.
. metareg ES  Rev_iif8                    if Target_Beh==1, wsse(_SE) knapphartung reml

Meta-regression                                         Number of obs  =      15
REML estimate of between-study variance                 tau2           =   .0195
% residual variation due to heterogeneity               I-squared_res  =  49.70%
Proportion of between-study variance explained          Adj R-squared  = -16.38%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif8 |   .0580355   .1199458     0.48   0.637    -.2010917    .3171627
       _cons |   .1306258   .0623958     2.09   0.056    -.0041721    .2654236
------------------------------------------------------------------------------

.
. *Model Rev_SXH_U2i
.
. tabulate  Rev_iif9                              if Target_Beh==1

   Rev_iif9 |      Freq.     Percent        Cum.
------------+-----------------------------------
```

```
          0 |          4       26.67       26.67
          1 |         11       73.33      100.00
------------+-----------------------------------
      Total |         15      100.00


.
. metareg ES  Rev_iif9                    if Target_Beh==1, wsse(_SE) knapphartung reml


Meta-regression                                         Number of obs  =      15
REML estimate of between-study variance                 tau2           =   .0184
% residual variation due to heterogeneity               I-squared_res  =  48.36%
Proportion of between-study variance explained          Adj R-squared  =  -9.80%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif9 |   .1107458   .1142525     0.97   0.350    -.1360817    .3575734
       _cons |   .0687156   .0954395     0.72   0.484    -.1374689    .2749002
------------------------------------------------------------------------------


.
.
```

Meta-regression of Theory-basedness

```
. *Model Rev_SXH_U3

.

. tabulate itb                            if Target_Beh==1


        ITB |      Freq.     Percent        Cum.
------------+-----------------------------------
         No |         12       80.00       80.00
        Yes |          3       20.00      100.00
------------+-----------------------------------
      Total |         15      100.00


.

. metareg ES  itb                         if Target_Beh==1, wsse(_SE) knapphartung reml


Meta-regression                                         Number of obs  =      15
REML estimate of between-study variance                 tau2           =  .01844
% residual variation due to heterogeneity               I-squared_res  =  48.80%
Proportion of between-study variance explained          Adj R-squared  = -10.06%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         itb |  -.0796645   .1254307    -0.64   0.536    -.3506411    .1913121
       _cons |   .1640487   .0596917     2.75   0.017     .0350926    .2930049
------------------------------------------------------------------------------
```

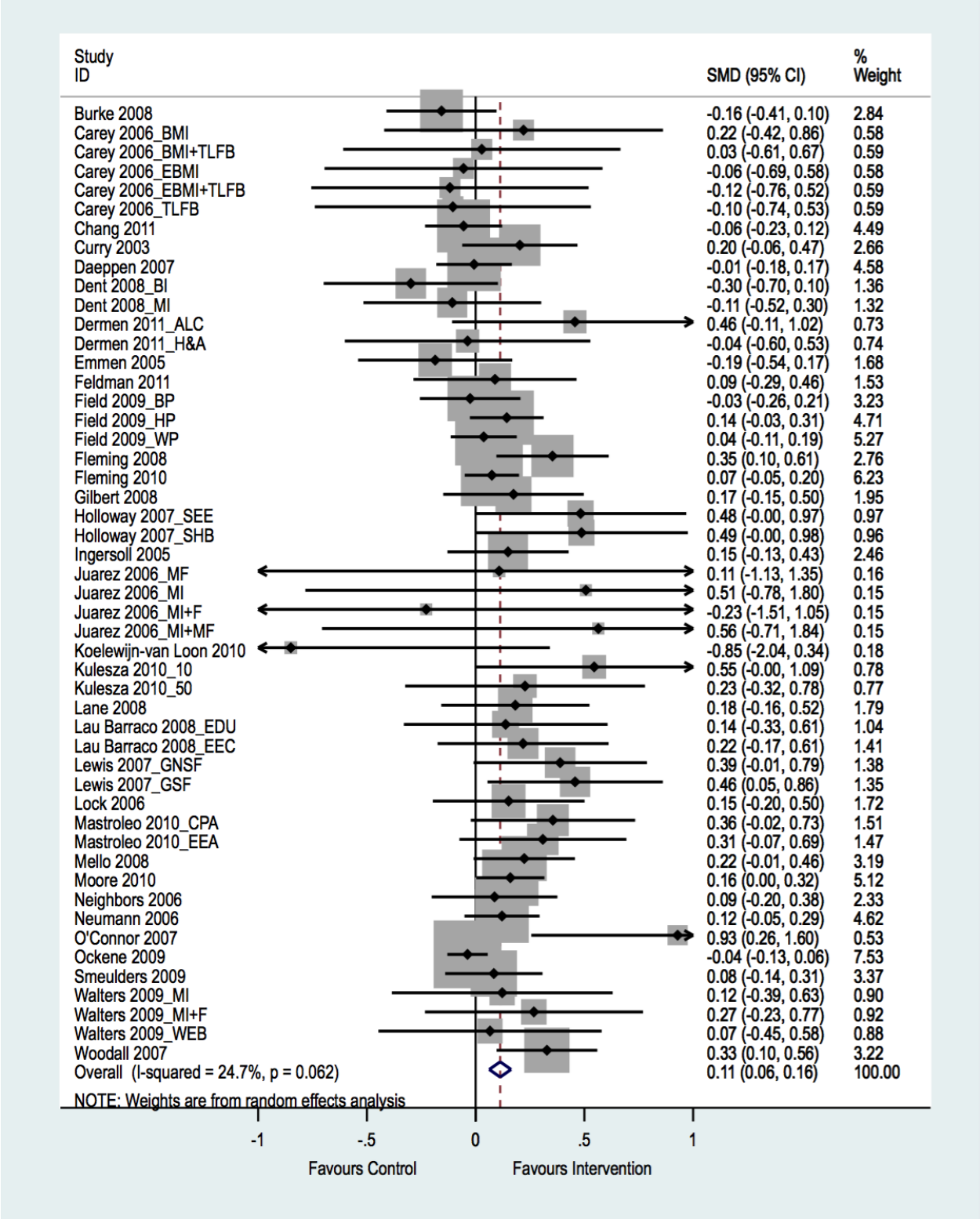
ALCOHOL

Meta-analysis

```
. metaan ES _SE if Target_Beh==2, dl forest label(StudyID)



DerSimonian-Laird random-effects method selected

------------------------------------------------------------------
        Study        |   Effect   [95% Conf. Interval]   % Weight
---------------------+--------------------------------------------
Burke 2008           |   -0.157     -0.410     0.096       2.84
Carey 2006_BMI       |    0.220     -0.420     0.861       0.58
Carey 2006_BMI+TLFB  |    0.028     -0.609     0.665       0.59
Carey 2006_EBMI      |   -0.056     -0.695     0.583       0.58
Carey 2006_EBMI+TLFB |   -0.118     -0.755     0.519       0.59
Carey 2006_TLFB      |   -0.105     -0.739     0.530       0.59
Chang 2011           |   -0.055     -0.232     0.122       4.49
Curry 2003           |    0.203     -0.062     0.468       2.66
Daeppen 2007         |   -0.007     -0.181     0.166       4.58
Dent 2008_BI         |   -0.298     -0.699     0.102       1.36
Dent 2008_MI         |   -0.107     -0.516     0.301       1.32
Dermen 2011_ALC      |    0.457     -0.108     1.022       0.73
Dermen 2011_H&A      |   -0.037     -0.601     0.528       0.74
Emmen 2005           |   -0.186     -0.540     0.168       1.68
Feldman 2011         |    0.089     -0.286     0.464       1.53
Field 2009_BP        |   -0.025     -0.256     0.206       3.23
Field 2009_HP        |    0.143     -0.026     0.313       4.71
Field 2009_WP        |    0.037     -0.115     0.189       5.27
Fleming 2008         |    0.354      0.096     0.611       2.76
Fleming 2010         |    0.075     -0.050     0.199       6.23
Gilbert 2008         |    0.174     -0.149     0.497       1.95
Holloway 2007_SEE    |    0.483     -0.003     0.968       0.97
Holloway 2007_SHB    |    0.487     -0.001     0.975       0.96
Ingersoll 2005       |    0.149     -0.130     0.428       2.46
Juarez 2006_MF       |    0.108     -1.132     1.348       0.16
```

Juarez 2006_MI	0.507	-0.783	1.798	0.15
Juarez 2006_MI+F	-0.227	-1.507	1.052	0.15
Juarez 2006_MI+MF	0.565	-0.706	1.835	0.15
Koelewijn-van Loon 2	-0.850	-2.041	0.341	0.18
Kulesza 2010_10	0.545	-0.003	1.093	0.78
Kulesza 2010_50	0.227	-0.324	0.778	0.77
Lane 2008	0.183	-0.158	0.523	1.79
Lau Barraco 2008_EDU	0.138	-0.330	0.606	1.04
Lau Barraco 2008_EEC	0.218	-0.175	0.611	1.41
Lewis 2007_GNSF	0.389	-0.009	0.787	1.38
Lewis 2007_GSF	0.457	0.054	0.860	1.35
Lock 2006	0.152	-0.197	0.501	1.72
Mastroleo 2010_CPA	0.356	-0.022	0.733	1.51
Mastroleo 2010_EEA	0.309	-0.074	0.693	1.47
Mello 2008	0.224	-0.009	0.457	3.19
Moore 2010	0.160	0.003	0.316	5.12
Neighbors 2006	0.087	-0.202	0.376	2.33
Neumann 2006	0.121	-0.051	0.294	4.62
O'Connor 2007	0.929	0.256	1.601	0.53
Ockene 2009	-0.037	-0.130	0.055	7.53
Smeulders 2009	0.084	-0.140	0.307	3.37
Walters 2009_MI	0.122	-0.385	0.630	0.90
Walters 2009_MI+F	0.268	-0.233	0.769	0.92
Walters 2009_WEB	0.066	-0.447	0.579	0.88
Woodall 2007	0.328	0.097	0.559	3.22
Overall effect (dl)	0.113	0.063	0.163	100.00

Heterogeneity chi-squared = 65.09 (d.f. = 49) p = 0.062
I-squared (variation in ES attributable to heterogeneity) = 24.7% (95% CI = 0 to 46.88)
Estimate of between-study variance Tau-squared = 0.0065
Test of ES=0 : z= 4.40 p = 0.000

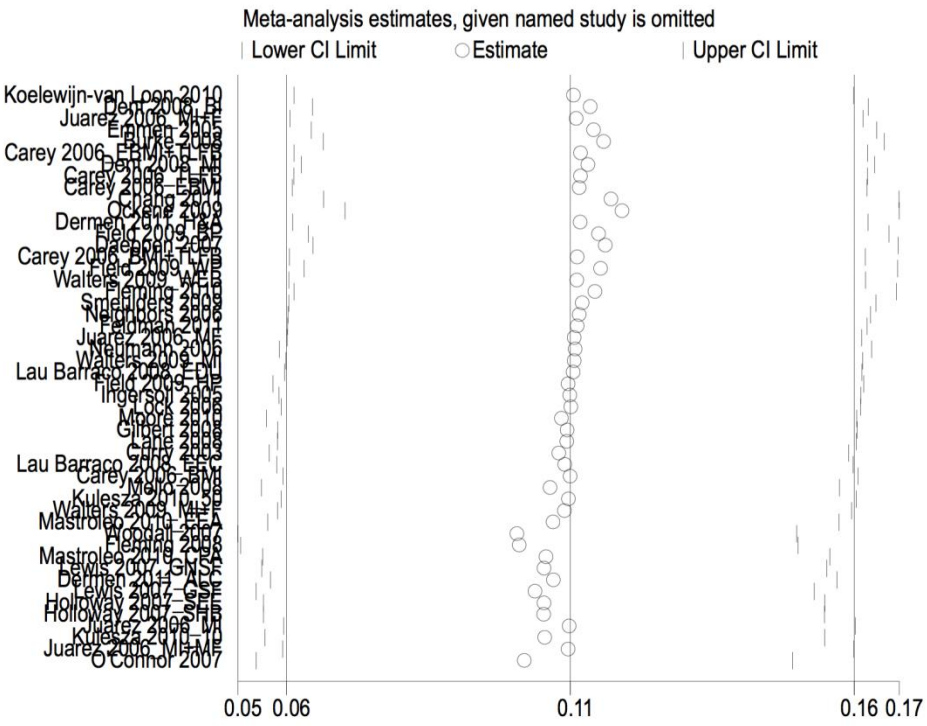


Outliers

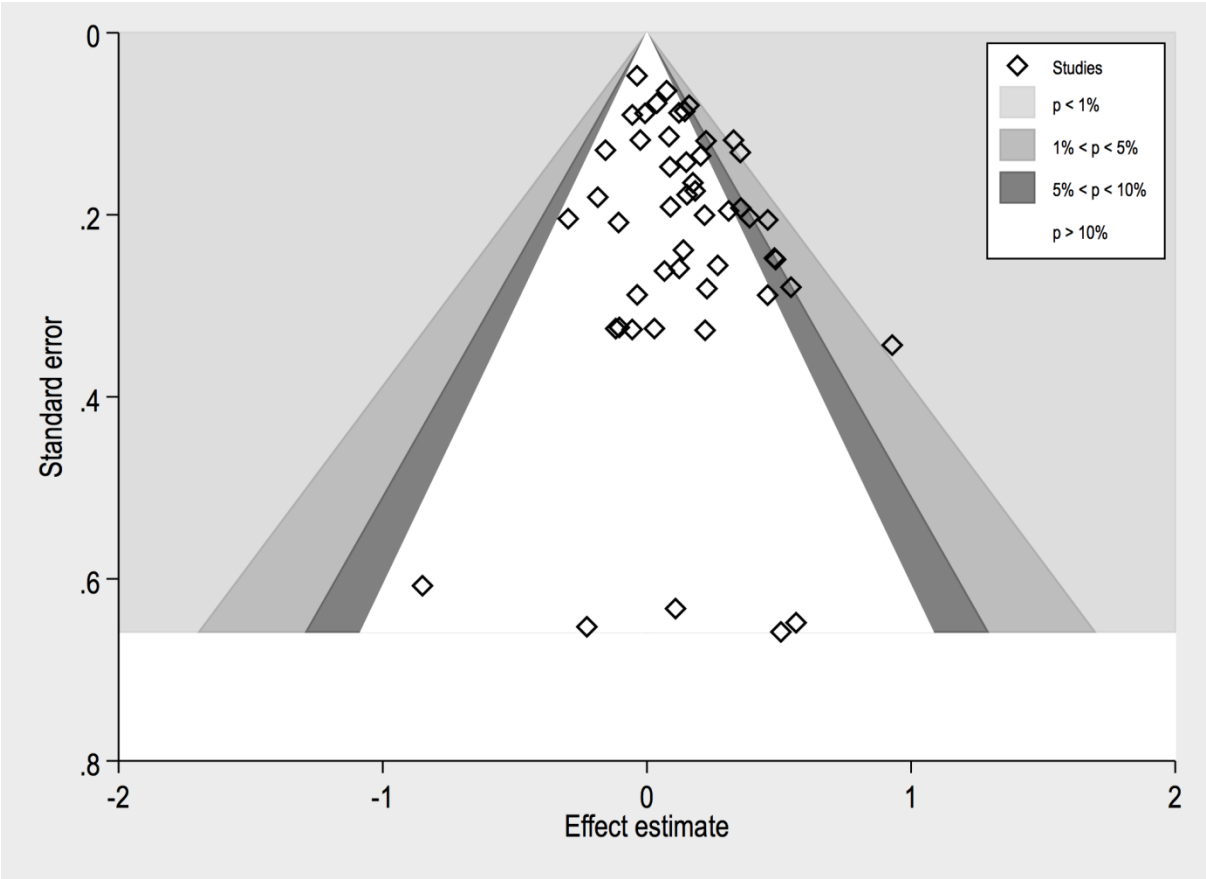
```
. metaninf ES _SE if Target_Beh==2, label(namevar=StudyID) random

------------------------------------------------------------------------------
 Study omitted      |   Estimate       [95%  Conf.  Interval]
-------------------+----------------------------------------------------------
 Koelewijn-van Loon 2010|.11347695    .06389877    .16305514
 Dent 2008_BI       |   .11640519      .0671692     .16564117
 Juarez 2006_MI+F   |   .11395603      .06321065    .1647014
 Emmen 2005         |   .11704365      .0669619     .16712539
 Burke 2008         |   .11879653      .06911338    .1684797
 Carey 2006_EBMI+TLFB| .11472635      .06393276    .16551994
 Dent 2008_MI       |   .11601906      .06524877    .16678935
```

Carey 2006_TLFB	.1146915	.06387058	.16551241
Carey 2006_EBMI	.11449936	.06359498	.16540374
Chang 2011	.12012845	.06916503	.17109187
Ockene 2009	.12203757	.07295205	.17112309
Dermen 2011_H&A	.11463998	.06368253	.16559741
Field 2009_BP	.11788164	.06646408	.1692992
Daeppen 2007	.11910229	.06726933	.17093524
Carey 2006_BMI+TLFB	.11411638	.06312444	.16510831
Field 2009_WP	.11826748	.06568625	.17084871
Walters 2009_WEB	.11407449	.06297256	.16517642
Fleming 2010	.11728875	.06394404	.17063347
Smeulders 2009	.11501689	.06301574	.16701806
Neighbors 2006	.11445925	.06284965	.16606887
Feldman 2011	.11410295	.06277747	.16542843
Juarez 2006_MF	.11359991	.06272794	.16447189
Neumann 2006	.11377352	.06132608	.16622096
Walters 2009_MI	.1135627	.06246023	.16466516
Lau Barraco 2008_EDU	.11337885	.06224332	.16451436
Field 2009_HP	.1125221	.06018378	.16486041
Ingersoll 2005	.11279964	.06124343	.16435584
Lock 2006	.11297222	.06164827	.16429618
Moore 2010	.11131344	.05901978	.16360711
Gilbert 2008	.11235463	.06102935	.16367991
Lane 2008	.11226471	.06100859	.16352083
Curry 2003	.11086984	.0595474	.16219229
Lau Barraco 2008_EEC	.11189704	.06084076	.16295333
Carey 2006_BMI	.11287906	.06195814	.16379997
Mello 2008	.10933191	.0581396	.16052423
Kulesza 2010_50	.11257905	.06163992	.16351818
Walters 2009_MI+F	.11186395	.06101255	.16271535
Mastroleo 2010_EEA	.10986803	.05926628	.16046977
Woodall 2007	.10345344	.05395615	.15295072
Fleming 2008	.10383891	.05446023	.15321757
Mastroleo 2010_CPA	.10860831	.05836193	.15885469
Lewis 2007_GNSF	.108272	.05821862	.15832537
Dermen 2011_ALC	.10993192	.0597667	.16009715
Lewis 2007_GSF	.10664728	.05720478	.15608978
Holloway 2007_SEE	.10822113	.05849459	.15794766
Holloway 2007_SHB	.10820048	.05849137	.1579096
Juarez 2006_MI	.11271039	.06205684	.16336392
Kulesza 2010_10	.10834689	.05875519	.1579386
Juarez 2006_MI+MF	.11250868	.06192583	.16309153
O'Connor 2007	.10473463	.05720742	.15226184
Combined	.11287057	.06258289	.16315826

No trials had point estimate outside the combined CI.



Publication bias




```
. metabias ES _SE          if Target_Beh==2, egger
```

```
Note: data input format theta se_theta assumed.

Egger's test for small-study effects:
Regress standard normal deviate of intervention
effect estimate against its standard error

Number of studies =  50                                Root MSE      =   1.098
------------------------------------------------------------------------------
     Std_Eff |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       slope |   .0072195   .0395764     0.18   0.856    -.0723543    .0867932
        bias |   .7003978   .2872368     2.44   0.019     .1228695    1.277926
------------------------------------------------------------------------------

Test of H0: no small-study effects          P = 0.019

. metatrim ES _SE         if Target_Beh==2, reffect funnel

Note: default data input format (theta, se_theta) assumed.

Meta-analysis

       |  Pooled      95% CI         Asymptotic      No. of
Method |     Est   Lower   Upper  z_value  p_value   studies
-------+-------------------------------------------------------
Fixed  |   0.088   0.050   0.127    4.536    0.000     50
Random |   0.113   0.063   0.163    4.399    0.000

Test for heterogeneity: Q= 65.088 on 49 degrees of freedom (p= 0.062)
Moment-based estimate of between studies variance =  0.007

Trimming estimator: Linear
Meta-analysis type: Random-effects model
```

iteration	estimate	Tn	# to trim	diff
1	0.113	736	4	1275
2	0.100	770	5	68
3	0.095	784	6	28
4	0.090	799	7	30
5	0.083	822	7	46
6	0.083	822	7	0

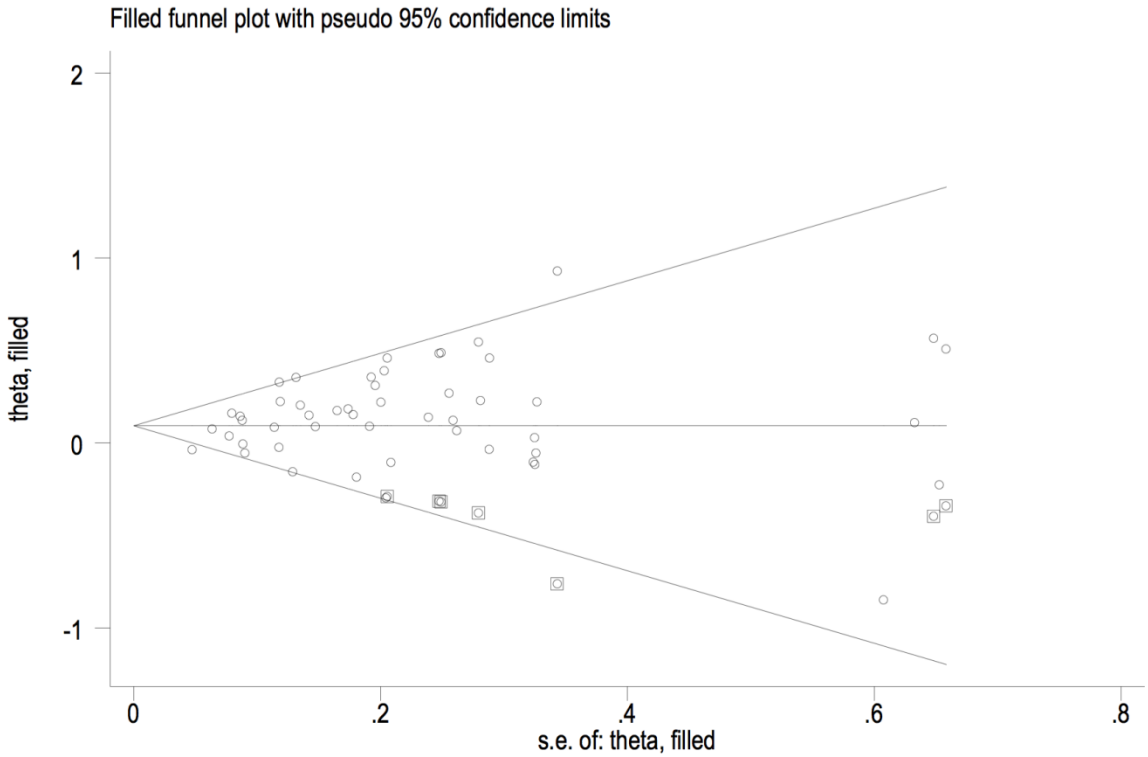
Filled

Meta-analysis

Method	Pooled Est	95% CI Lower	95% CI Upper	Asymptotic z_value	Asymptotic p_value	No. of studies
Fixed	0.075	0.037	0.112	3.887	0.000	57
Random	0.093	0.039	0.147	3.382	0.001	

Test for heterogeneity: Q= 83.265 on 56 degrees of freedom (p= 0.010)

Moment-based estimate of between studies variance = 0.011


Filled funnel plot with pseudo 95% confidence limits
2
1
0
-1
theta, filled
0
.2
.4
.6
.8
s.e. of: theta, filled

Univariate analysis

Meta-regression of BCT Clusters

```
*Model Rev_ALC_U1a

. tabulate  Rev_Cluster1_SS               if Target_Beh==2


  Cluster1: |

     Social |

  Support - |

Controlling |

        for |

 comparator |

        use |      Freq.     Percent        Cum.

------------+-----------------------------------

          0 |         10       20.00       20.00

          1 |         40       80.00      100.00

------------+-----------------------------------

      Total |         50      100.00


.

. metareg ES  Rev_Cluster1_SS             if Target_Beh==2, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      50

REML estimate of between-study variance               tau2           = .007372

% residual variation due to heterogeneity             I-squared_res  =  25.62%

Proportion of between-study variance explained        Adj R-squared  = -10.89%

With Knapp-Hartung modification

------------------------------------------------------------------------------

             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

----------------+-------------------------------------------------------------

Rev_Cluster1_SS |  -.0234369   .0613589    -0.38   0.704    -.1468073    .0999335

          _cons |   .1321365   .0534681     2.47   0.017     .0246317    .2396412

------------------------------------------------------------------------------
```

```
.
. *Model Rev_ALC_U1b
.
. tabulate  Rev_Cluster2_Reg              if Target_Beh==2


  Cluster2: |
 Regulation |
          - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         49       98.00       98.00
          1 |          1        2.00      100.00
------------+-----------------------------------
      Total |         50      100.00


.
.
. *Model Rev_ALC_U1c
.
. tabulate  Rev_Cluster3_FM               if Target_Beh==2


  Cluster3: |
 Feedback & |
 Monitoring |
          - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         15       30.00       30.00
```

```
          1 |         35       70.00      100.00
------------+-----------------------------------
      Total |         50      100.00

.
. metareg ES  Rev_Cluster3_FM             if Target_Beh==2, wsse(_SE) knapphartung reml

Meta-regression                                         Number of obs  =      50
REML estimate of between-study variance                 tau2           = .004765
% residual variation due to heterogeneity               I-squared_res  =  15.85%
Proportion of between-study variance explained          Adj R-squared  =  28.33%
With Knapp-Hartung modification
------------------------------------------------------------------------------
             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
----------------+-------------------------------------------------------------
Rev_Cluster3_FM |   .1096903   .0497763     2.20   0.032     .0096082    .2097723
          _cons |   .0436481   .0385131     1.13   0.263    -.0337878    .1210839
------------------------------------------------------------------------------

.
. *Model Rev_ALC_U1d
.
. tabulate  Rev_Cluster4_Asc              if Target_Beh==2

  Cluster4: |
Association |
        s - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         50      100.00      100.00
------------+-----------------------------------
```

```
      Total |         50      100.00

.

.

. *Model Rev_ALC_U1e

.

. tabulate  Rev_Cluster5_RS               if Target_Beh==2


  Cluster5: |
 Repetition |
        and |
Substitutio |
       ns - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         47       94.00       94.00
          1 |          3        6.00      100.00
------------+-----------------------------------
      Total |         50      100.00


.

. metareg ES  Rev_Cluster5_RS             if Target_Beh==2, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      50
REML estimate of between-study variance               tau2           = .006545
% residual variation due to heterogeneity             I-squared_res  =  24.84%
Proportion of between-study variance explained        Adj R-squared  =   1.54%
With Knapp-Hartung modification
------------------------------------------------------------------------------
             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
----------------+-------------------------------------------------------------
```

```
Rev_Cluster5_RS |   .1092588   .1272303     0.86   0.395    -.1465549    .3650726
          _cons |    .108287   .0262472     4.13   0.000     .0555135    .1610605
------------------------------------------------------------------------------


.
. *Model Rev_ALC_U1f
.
. tabulate  Rev_Cluster6_Ant              if Target_Beh==2


  Cluster6: |
Antecedents |
          - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         48       96.00       96.00
          1 |          2        4.00      100.00
------------+-----------------------------------
      Total |         50      100.00


.


.
. *Model Rev_ALC_U1g
.
. tabulate  Rev_Cluster7_SK               if Target_Beh==2


  Cluster7: |
    Shaping |
Knowledge - |
Controlling |
        for |
```

```
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         45       90.00       90.00
          1 |          5       10.00      100.00
------------+-----------------------------------
      Total |         50      100.00


.
. metareg ES  Rev_Cluster7_SK             if Target_Beh==2, wsse(_SE) knapphartung reml


Meta-regression                                         Number of obs  =      50
REML estimate of between-study variance                 tau2           = .007253
% residual variation due to heterogeneity               I-squared_res  =  25.68%
Proportion of between-study variance explained          Adj R-squared  =  -9.11%
With Knapp-Hartung modification
------------------------------------------------------------------------------
             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
----------------+-------------------------------------------------------------
Rev_Cluster7_SK |   .0053368   .0811808     0.07   0.948    -.1578882    .1685617
          _cons |   .1135201    .027842     4.08   0.000     .0575401    .1695001
------------------------------------------------------------------------------


.
. *Model Rev_ALC_U1h
.
. tabulate  Rev_Cluster8_SB               if Target_Beh==2


  Cluster8: |
Self-belief |
          - |
Controlling |
        for |
 comparator |
```

```
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         45       90.00       90.00
          1 |          5       10.00      100.00
------------+-----------------------------------
      Total |         50      100.00


.
. metareg ES  Rev_Cluster8_SB            if Target_Beh==2, wsse(_SE) knapphartung reml

Meta-regression                                         Number of obs  =      50
REML estimate of between-study variance                 tau2           = .004486
% residual variation due to heterogeneity               I-squared_res  =  17.99%
Proportion of between-study variance explained          Adj R-squared  =  32.52%
With Knapp-Hartung modification
------------------------------------------------------------------------------
             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
----------------+-------------------------------------------------------------
Rev_Cluster8_SB |   -.095505   .0579734    -1.65   0.106    -.2120683    .0210584
          _cons |    .130634   .0278139     4.70   0.000     .0747105    .1865576
------------------------------------------------------------------------------


.
. *Model Rev_ALC_U1i
.
. tabulate  Rev_Cluster9_SC              if Target_Beh==2


  Cluster9: |
  Scheduled |
Consequence |
        s - |
Controlling |
        for |
 comparator |
```

```
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         50      100.00      100.00
------------+-----------------------------------
      Total |         50      100.00


.
.
. *Model Rev_ALC_U1j
.
. tabulate  Rev_Cluster10_RT              if Target_Beh==2


 Cluster10: |
   Reward & |
   Threat - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         50      100.00      100.00
------------+-----------------------------------
      Total |         50      100.00


.
.
. *Model Rev_ALC_U1k
.
. tabulate  Rev_Cluster11_GP              if Target_Beh==2


 Cluster11: |
    Goals & |
 Planning - |
Controlling |
```

```
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         30       60.00       60.00
          1 |         20       40.00      100.00
------------+-----------------------------------
      Total |         50      100.00


.
. metareg ES  Rev_Cluster11_GP    if Target_Beh==2, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =      50
REML estimate of between-study variance               tau2           = .006427
% residual variation due to heterogeneity             I-squared_res  =  23.04%
Proportion of between-study variance explained        Adj R-squared  =   3.32%
With Knapp-Hartung modification
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
Rev_Cluster11_GP |   -.046326   .0512702    -0.90   0.371    -.1494116    .0567595
           _cons |   .1347061    .035318     3.81   0.000     .0636946    .2057176
------------------------------------------------------------------------------


.
. *Model Rev_ALC_U11
.
. tabulate  Rev_Cluster12_CO              if Target_Beh==2

 Cluster12: |
 Comparison |
of Outcomes |
          - |
Controlling |
```

```
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         37       74.00       74.00
          1 |         13       26.00      100.00
------------+-----------------------------------
      Total |         50      100.00


.
. metareg ES  Rev_Cluster12_CO    if Target_Beh==2, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =      50
REML estimate of between-study variance               tau2           = .007215
% residual variation due to heterogeneity             I-squared_res  =  26.08%
Proportion of between-study variance explained        Adj R-squared  =  -8.53%
With Knapp-Hartung modification
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
Rev_Cluster12_CO |  -.0352775   .0610932    -0.58   0.566    -.1581136    .0875586
           _cons |   .1225854   .0299903     4.09   0.000      .062286    .1828849
------------------------------------------------------------------------------


.
. *Model Rev_ALC_U1m
.
. tabulate  Rev_Cluster13_Id              if Target_Beh==2

 Cluster13: |
 Identity - |
Controlling |
        for |
 comparator |
```

```
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         50      100.00      100.00
------------+-----------------------------------
      Total |         50      100.00


.
.
. *Model Rev_ALC_U1n
.
. tabulate  Rev_Cluster14_NC              if Target_Beh==2


 Cluster14: |
    Natural |
Consequence |
        s - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         20       40.00       40.00
          1 |         30       60.00      100.00
------------+-----------------------------------
      Total |         50      100.00


.
. metareg ES  Rev_Cluster14_NC    if Target_Beh==2, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      50
REML estimate of between-study variance               tau2           = .007398
% residual variation due to heterogeneity             I-squared_res  =  26.22%
Proportion of between-study variance explained        Adj R-squared  = -11.29%
With Knapp-Hartung modification
```

```
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
Rev_Cluster14_NC |     .01511   .0528633     0.29   0.776    -.0911788    .1213989
           _cons |   .1059367   .0395226     2.68   0.010     .0264711    .1854022
------------------------------------------------------------------------------


.
. *Model Rev_ALC_U1o
.
. tabulate  Rev_Cluster15_CB              if Target_Beh==2


 Cluster15: |
 Comparison |
         of |
Behaviour - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         28       56.00       56.00
          1 |         22       44.00      100.00
------------+-----------------------------------
      Total |         50      100.00


.
. metareg ES  Rev_Cluster15_CB    if Target_Beh==2, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      50
REML estimate of between-study variance               tau2           = .007502
% residual variation due to heterogeneity             I-squared_res  =  26.07%
Proportion of between-study variance explained        Adj R-squared  = -12.85%
With Knapp-Hartung modification
```

```
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
Rev_Cluster15_CB |   .0186735   .0551672     0.34   0.736    -.0922475    .1295945
           _cons |   .1080118   .0326405     3.31   0.002     .0423836    .1736399
------------------------------------------------------------------------------


.
. *Model Rev_ALC_U1p
.
. tabulate  Rev_Cluster16_CL              if Target_Beh==2


 Cluster16: |
     Covert |
 Learning - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         50      100.00      100.00
------------+-----------------------------------
      Total |         50      100.00
```

Meta-regression of Intervention function

```
. *Model Rev_ALC_U2a

.

. tabulate  Rev_iif1                              if Target_Beh==2


   Rev_iif1 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         14       28.00       28.00
          1 |         36       72.00      100.00
------------+-----------------------------------
      Total |         50      100.00


.

. metareg ES  Rev_iif1                    if Target_Beh==2, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      50
REML estimate of between-study variance               tau2           = .008746
% residual variation due to heterogeneity             I-squared_res  =  25.94%
Proportion of between-study variance explained        Adj R-squared  = -31.57%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif1 |   .0828708   .0563139     1.47   0.148    -.0303558    .1960974
       _cons |   .0636501   .0449253     1.42   0.163    -.0266783    .1539786
------------------------------------------------------------------------------


.

. *Model Rev_ALC_U2b

.

. tabulate  Rev_iif2                              if Target_Beh==2


   Rev_iif2 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         29       58.00       58.00
```

```
          1 |         21       42.00      100.00
------------+-----------------------------------
      Total |         50      100.00

.
. metareg ES  Rev_iif2                    if Target_Beh==2, wsse(_SE) knapphartung reml

Meta-regression                                         Number of obs  =      50
REML estimate of between-study variance                 tau2           = .005733
% residual variation due to heterogeneity               I-squared_res  =  21.98%
Proportion of between-study variance explained          Adj R-squared  =  13.75%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif2 |  -.0378697   .0512438    -0.74   0.463    -.1409022    .0651629
       _cons |   .1276279   .0335434     3.80   0.000     .0601844    .1950714
------------------------------------------------------------------------------

.
. *Model Rev_ALC_U2c
.
. tabulate  Rev_iif3                              if Target_Beh==2

   Rev_iif3 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         50      100.00      100.00
------------+-----------------------------------
      Total |         50      100.00

.
.
. *Model Rev_ALC_U2d
.
```

```
. tabulate  Rev_iif4                              if Target_Beh==2

   Rev_iif4 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         49       98.00       98.00
          1 |          1        2.00      100.00
------------+-----------------------------------
      Total |         50      100.00

.
.
. *Model Rev_ALC_U2e
.
. tabulate  Rev_iif5                              if Target_Beh==2

   Rev_iif5 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         45       90.00       90.00
          1 |          5       10.00      100.00
------------+-----------------------------------
      Total |         50      100.00

.
. metareg ES Rev_iif5                             if Target_Beh==2, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =      50
REML estimate of between-study variance               tau2           = .007239
% residual variation due to heterogeneity             I-squared_res  =  25.30%
Proportion of between-study variance explained        Adj R-squared  =  -8.90%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif5 |  -.0957336   .0871573    -1.10   0.278    -.2709751    .0795079
```

```
       _cons |   .1236959   .0275581     4.49   0.000     .0682867    .1791052
------------------------------------------------------------------------------


.
. *Model Rev_ALC_U2f
.
. tabulate  Rev_iif6                              if Target_Beh==2


   Rev_iif6 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         50      100.00      100.00
------------+-----------------------------------
      Total |         50      100.00


.
.
. *Model Rev_ALC_U2g
.
. tabulate Rev_iif7                               if Target_Beh==2


   Rev_iif7 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         50      100.00      100.00
------------+-----------------------------------
      Total |         50      100.00


.
.
. *Model Rev_ALC_U2h
.
. tabulate  Rev_iif8                              if Target_Beh==2


   Rev_iif8 |      Freq.     Percent        Cum.
------------+-----------------------------------
```

```
          0 |         50      100.00      100.00
------------+-----------------------------------
      Total |         50      100.00

.
.
. *Model Rev_ALC_U2i
.
. tabulate  Rev_iif9                              if Target_Beh==2

   Rev_iif9 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |          9       18.00       18.00
          1 |         41       82.00      100.00
------------+-----------------------------------
      Total |         50      100.00

.
. metareg ES Rev_iif9                             if Target_Beh==2, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =      50
REML estimate of between-study variance               tau2           = .007448
% residual variation due to heterogeneity             I-squared_res  =  26.06%
Proportion of between-study variance explained        Adj R-squared  = -12.04%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif9 |   .0011297   .0619745     0.02   0.986    -.1234783    .1257377
       _cons |   .1135989   .0542032     2.10   0.041     .0046161    .2225818
------------------------------------------------------------------------------

.
.
```

```
.
```

Meta-regression of Theory-basedness

```
. *Model ALC_U3

.

. tabulate itb                              if Target_Beh==2


        ITB |      Freq.     Percent        Cum.
------------+-----------------------------------
         No |         44       88.00       88.00
        Yes |          6       12.00      100.00
------------+-----------------------------------
      Total |         50      100.00


.

. metareg ES  itb                           if Target_Beh==2, wsse(_SE) knapphartung reml


Meta-regression                                         Number of obs  =      50
REML estimate of between-study variance                 tau2           =  .00702
% residual variation due to heterogeneity               I-squared_res  =  25.60%
Proportion of between-study variance explained          Adj R-squared  =  -5.61%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         itb |   .0360844   .0811006     0.44   0.658    -.1269793     .199148
       _cons |   .1095643   .0276588     3.96   0.000     .0539525    .1651762
------------------------------------------------------------------------------
```

SMOKING

Meta-analysis

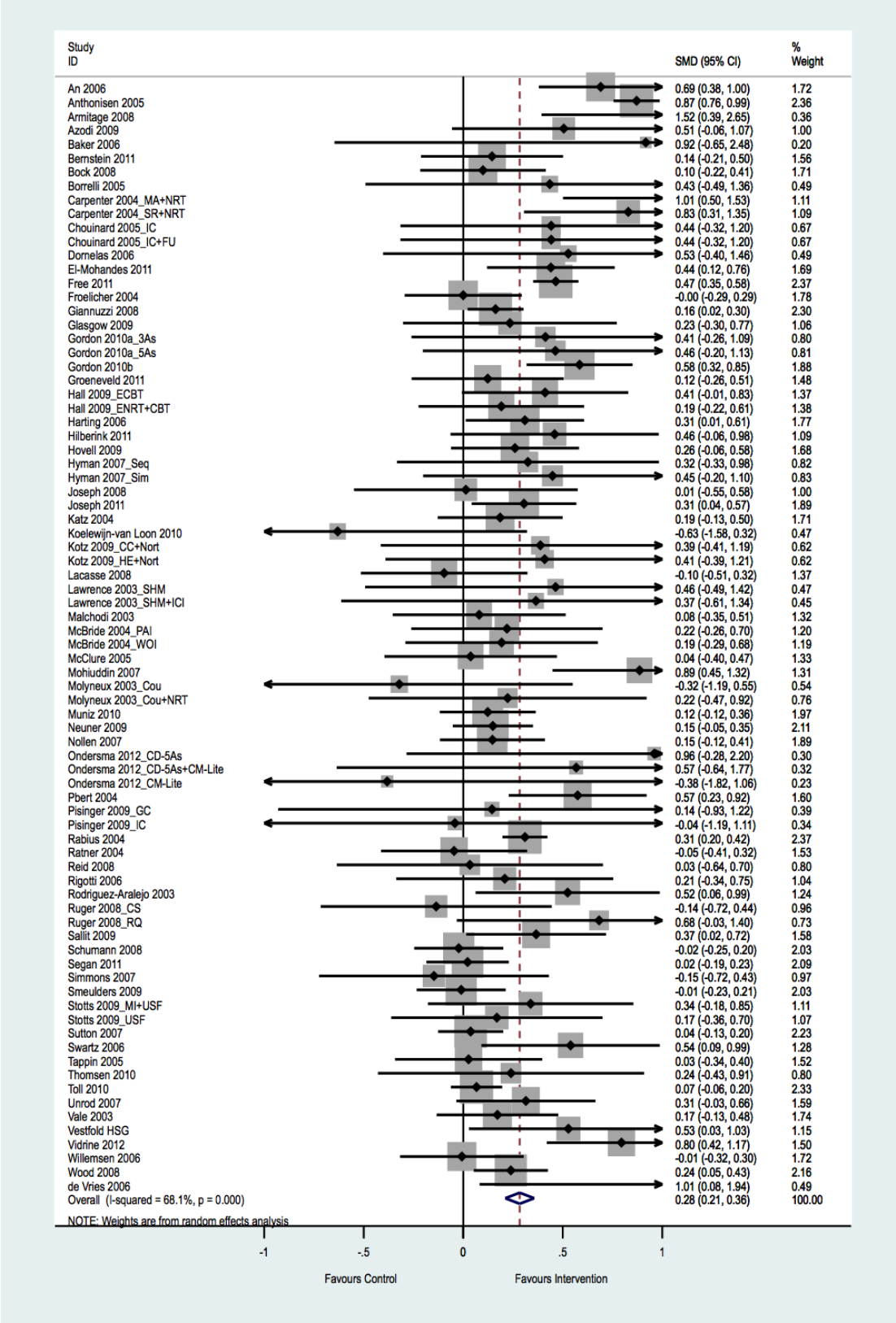
```
. metan ES _SE if Target_Beh==3, label(namevar=StudyID) sortby(StudyID) random effect(SMD)
astext(50) textsize(230)  force xlabel(-1, -0.5, 0, 0.5, 1) favours (Favours Control # Favours
Intervention)
```

Study	ES	[95% Conf.	Interval]	% Weight
An 2006	0.691	0.380	1.002	1.72
Anthonisen 2005	0.871	0.755	0.987	2.36
Armitage 2008	1.522	0.394	2.650	0.36
Azodi 2009	0.505	-0.056	1.067	1.00
Baker 2006	0.917	-0.647	2.481	0.20
Bernstein 2011	0.145	-0.212	0.501	1.56
Bock 2008	0.099	-0.216	0.414	1.71
Borrelli 2005	0.435	-0.491	1.361	0.49
Carpenter 2004_MA+NR	1.015	0.502	1.528	1.11
Carpenter 2004_SR+NR	0.829	0.306	1.353	1.09
Chouinard 2005_IC	0.442	-0.316	1.199	0.67
Chouinard 2005_IC+FU	0.442	-0.316	1.199	0.67
Dornelas 2006	0.528	-0.402	1.458	0.49
El-Mohandes 2011	0.440	0.120	0.761	1.69
Free 2011	0.465	0.351	0.579	2.37
Froelicher 2004	-0.000	-0.294	0.294	1.78
Giannuzzi 2008	0.162	0.022	0.303	2.30
Glasgow 2009	0.235	-0.302	0.772	1.06
Gordon 2010a_3As	0.413	-0.260	1.085	0.80
Gordon 2010a_5As	0.463	-0.203	1.129	0.81
Gordon 2010b	0.585	0.319	0.851	1.88
Groeneveld 2011	0.123	-0.259	0.505	1.48
Hall 2009_ECBT	0.411	-0.007	0.829	1.37
Hall 2009_ENRT+CBT	0.192	-0.224	0.607	1.38
Harting 2006	0.310	0.013	0.607	1.77
Hilberink 2011	0.459	-0.064	0.982	1.09
Hovell 2009	0.260	-0.061	0.582	1.68

Hyman 2007_Seq	0.325	-0.333	0.983	0.82
Hyman 2007_Sim	0.449	-0.201	1.099	0.83
Joseph 2008	0.013	-0.549	0.575	1.00
Joseph 2011	0.305	0.043	0.568	1.89
Katz 2004	0.186	-0.129	0.500	1.71
Koelewijn-van Loon 2	-0.631	-1.582	0.320	0.47
Kotz 2009_CC+Nort	0.388	-0.414	1.190	0.62
Kotz 2009_HE+Nort	0.409	-0.391	1.209	0.62
Lacasse 2008	-0.096	-0.514	0.322	1.37
Lawrence 2003_SHM	0.464	-0.493	1.421	0.47
Lawrence 2003_SHM+IC	0.365	-0.613	1.344	0.45
Malchodi 2003	0.080	-0.354	0.515	1.32
McBride 2004_PAI	0.220	-0.261	0.700	1.20
McBride 2004_WOI	0.193	-0.291	0.676	1.19
McClure 2005	0.037	-0.396	0.471	1.33
Mohiuddin 2007	0.886	0.449	1.323	1.31
Molyneux 2003_Cou	-0.321	-1.193	0.550	0.54
Molyneux 2003_Cou+NR	0.223	-0.475	0.921	0.76
Muniz 2010	0.123	-0.118	0.364	1.97
Neuner 2009	0.149	-0.053	0.350	2.11
Nollen 2007	0.147	-0.117	0.410	1.89
Ondersma 2012_CD-5As	0.960	-0.285	2.204	0.30
Ondersma 2012_CD-5As	0.568	-0.636	1.771	0.32
Ondersma 2012_CM-Lit	-0.382	-1.819	1.055	0.23
Pbert 2004	0.575	0.228	0.921	1.60
Pisinger 2009_GC	0.145	-0.930	1.219	0.39
Pisinger 2009_IC	-0.042	-1.190	1.106	0.34
Rabius 2004	0.310	0.197	0.423	2.37
Ratner 2004	-0.046	-0.413	0.321	1.53
Reid 2008	0.033	-0.635	0.702	0.80
Rigotti 2006	0.209	-0.336	0.754	1.04
Rodriguez-Aralejo 20	0.525	0.062	0.987	1.24
Ruger 2008_CS	-0.136	-0.716	0.444	0.96
Ruger 2008_RQ	0.683	-0.032	1.398	0.73

Sallit 2009	0.366	0.015	0.717	1.58
Schumann 2008	-0.023	-0.246	0.201	2.03
Segan 2011	0.022	-0.185	0.229	2.09
Simmons 2007	-0.147	-0.725	0.430	0.97
Smeulders 2009	-0.010	-0.234	0.213	2.03
Stotts 2009_MI+USF	0.338	-0.178	0.855	1.11
Stotts 2009_USF	0.169	-0.362	0.699	1.07
Sutton 2007	0.037	-0.126	0.201	2.23
Swartz 2006	0.539	0.092	0.987	1.28
Tappin 2005	0.027	-0.343	0.397	1.52
Thomsen 2010	0.240	-0.428	0.908	0.80
Toll 2010	0.067	-0.062	0.196	2.33
Unrod 2007	0.315	-0.035	0.664	1.59
VHSG	0.528	0.029	1.028	1.15
Vale 2003	0.172	-0.134	0.477	1.74
Vidrine 2012	0.795	0.419	1.171	1.50
Willemsen 2006	-0.007	-0.317	0.304	1.72
Wood 2008	0.239	0.053	0.426	2.16
de Vries 2006	1.010	0.082	1.938	0.49
D+L pooled ES	0.284	0.211	0.356	100.00

Heterogeneity chi-squared = 247.38 (d.f. = 79) p = 0.000
I-squared (variation in ES attributable to heterogeneity) = 68.1% (95% CI = 59.19 to 74.23)
Estimate of between-study variance Tau-squared = 0.0545
Test of ES=0 : z= 7.66 p = 0.000


Study ID
SMD (95% CI)
% Weight
An 2006 0.69 (0.38, 1.00) 1.72
Anthonisen 2005 0.87 (0.76, 0.99) 2.36
Armitage 2008 1.52 (0.39, 2.65) 0.36
Azodi 2009 0.51 (-0.06, 1.07) 1.00
Baker 2006 0.92 (-0.65, 2.48) 0.20
Bernstein 2011 0.14 (-0.21, 0.50) 1.56
Bock 2008 0.10 (-0.22, 0.41) 1.71
Borrelli 2005 0.43 (-0.49, 1.36) 0.49
Carpenter 2004_MA+NRT 1.01 (0.50, 1.53) 1.11
Carpenter 2004_SR+NRT 0.83 (0.31, 1.35) 1.09
Chouinard 2005_IC 0.44 (-0.32, 1.20) 0.67
Chouinard 2005_IC+FU 0.44 (-0.32, 1.20) 0.67
Dornelas 2006 0.53 (-0.40, 1.46) 0.49
El-Mohandes 2011 0.44 (0.12, 0.76) 1.69
Free 2011 0.47 (0.35, 0.58) 2.37
Froelicher 2004 -0.00 (-0.29, 0.29) 1.78
Giannuzzi 2008 0.16 (0.02, 0.30) 2.30
Glasgow 2009 0.23 (-0.30, 0.77) 1.06
Gordon 2010a_3As 0.41 (-0.26, 1.09) 0.80
Gordon 2010a_5As 0.46 (-0.20, 1.13) 0.81
Gordon 2010b 0.58 (0.32, 0.85) 1.88
Groeneveld 2011 0.12 (-0.26, 0.51) 1.48
Hall 2009_ECBT 0.41 (-0.01, 0.83) 1.37
Hall 2009_ENRT+CBT 0.19 (-0.22, 0.61) 1.38
Harting 2006 0.31 (0.01, 0.61) 1.77
Hilberink 2011 0.46 (-0.06, 0.98) 1.09
Hovell 2009 0.26 (-0.06, 0.58) 1.68
Hyman 2007_Seq 0.32 (-0.33, 0.98) 0.82
Hyman 2007_Sim 0.45 (-0.20, 1.10) 0.83
Joseph 2008 0.01 (-0.55, 0.58) 1.00
Joseph 2011 0.31 (0.04, 0.57) 1.89
Katz 2004 0.19 (-0.13, 0.50) 1.71
Koelewijn-van Loon 2010 -0.63 (-1.58, 0.32) 0.47
Kotz 2009_CC+Nort 0.39 (-0.41, 1.19) 0.62
Kotz 2009_HE+Nort 0.41 (-0.39, 1.21) 0.62
Lacasse 2008 -0.10 (-0.51, 0.32) 1.37
Lawrence 2003_SHM 0.46 (-0.49, 1.42) 0.47
Lawrence 2003_SHM+ICI 0.37 (-0.61, 1.34) 0.45
Malchodi 2003 0.08 (-0.35, 0.51) 1.32
McBride 2004_PAI 0.22 (-0.26, 0.70) 1.20
McBride 2004_WOI 0.19 (-0.29, 0.68) 1.19
McClure 2005 0.04 (-0.40, 0.47) 1.33
Mohiuddin 2007 0.89 (0.45, 1.32) 1.31
Molyneux 2003_Cou -0.32 (-1.19, 0.55) 0.54
Molyneux 2003_Cou+NRT 0.22 (-0.47, 0.92) 0.76
Muniz 2010 0.12 (-0.12, 0.36) 1.97
Neuner 2009 0.15 (-0.05, 0.35) 2.11
Nollen 2007 0.15 (-0.12, 0.41) 1.89
Ondersma 2012_CD-5As 0.96 (-0.28, 2.20) 0.30
Ondersma 2012_CD-5As+CM-Lite 0.57 (-0.64, 1.77) 0.32
Ondersma 2012_CM-Lite -0.38 (-1.82, 1.06) 0.23
Pbert 2004 0.57 (0.23, 0.92) 1.60
Pisinger 2009_GC 0.14 (-0.93, 1.22) 0.39
Pisinger 2009_IC -0.04 (-1.19, 1.11) 0.34
Rabius 2004 0.31 (0.20, 0.42) 2.37
Ratner 2004 -0.05 (-0.41, 0.32) 1.53
Reid 2008 0.03 (-0.64, 0.70) 0.80
Rigotti 2006 0.21 (-0.34, 0.75) 1.04
Rodriguez-Aralejo 2003 0.52 (0.06, 0.99) 1.24
Ruger 2008_CS -0.14 (-0.72, 0.44) 0.96
Ruger 2008_RQ 0.68 (-0.03, 1.40) 0.73
Sallit 2009 0.37 (0.02, 0.72) 1.58
Schumann 2008 -0.02 (-0.25, 0.20) 2.03
Segan 2011 0.02 (-0.19, 0.23) 2.09
Simmons 2007 -0.15 (-0.72, 0.43) 0.97
Smeulders 2009 -0.01 (-0.23, 0.21) 2.03
Stotts 2009_MI+USF 0.34 (-0.18, 0.85) 1.11
Stotts 2009_USF 0.17 (-0.36, 0.70) 1.07
Sutton 2007 0.04 (-0.13, 0.20) 2.23
Swartz 2006 0.54 (0.09, 0.99) 1.28
Tappin 2005 0.03 (-0.34, 0.40) 1.52
Thomsen 2010 0.24 (-0.43, 0.91) 0.80
Toll 2010 0.07 (-0.06, 0.20) 2.33
Unrod 2007 0.31 (-0.03, 0.66) 1.59
Vale 2003 0.17 (-0.13, 0.48) 1.74
Vestfold HSG 0.53 (0.03, 1.03) 1.15
Vidrine 2012 0.80 (0.42, 1.17) 1.50
Willemsen 2006 -0.01 (-0.32, 0.30) 1.72
Wood 2008 0.24 (0.05, 0.43) 2.16
de Vries 2006 1.01 (0.08, 1.94) 0.49
Overall (I-squared = 68.1%, p = 0.000) 0.28 (0.21, 0.36) 100.00
NOTE: Weights are from random effects analysis
-1
-.5
0
.5
1
Favours Control
Favours Intervention

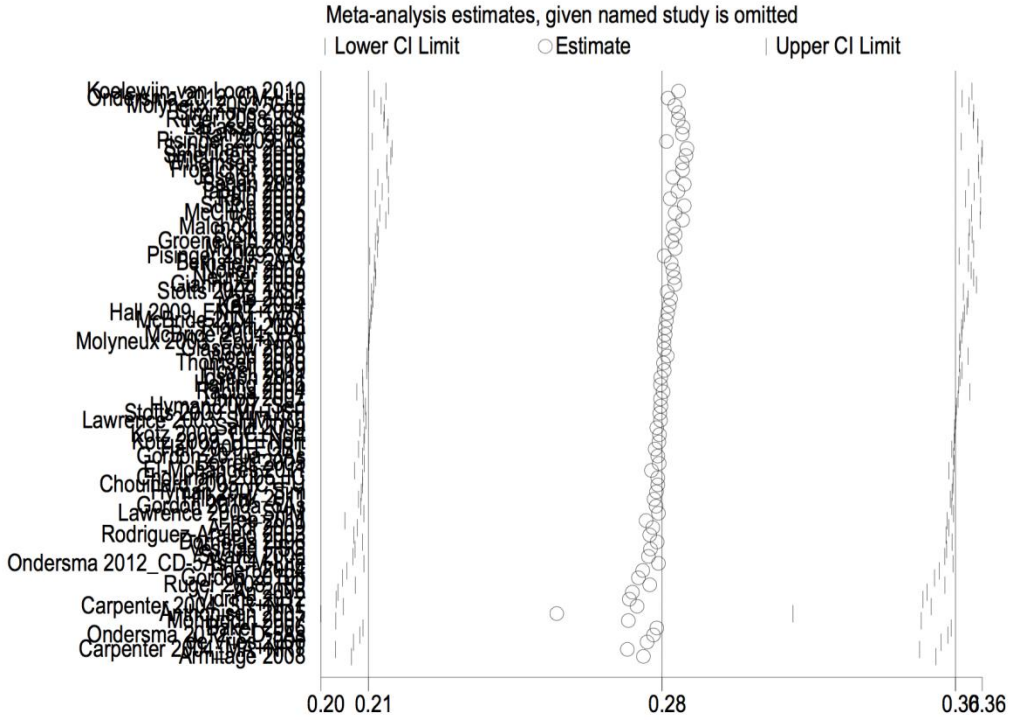
Outliers

Study omitted	Estimate	[95% Conf.	Interval]
Koelewijn-van Loon 2010	.28790602	.21549831	.36031371
Ondersma 2012_CM-Lite	.28527713	.21260208	.35795221
Molyneux 2003_Cou	.28698578	.21431616	.35965544
Simmons 2007	.28790295	.21507433	.36073157
Ruger 2008_CS	.28777319	.21492933	.36061707
Lacasse 2008	.28892449	.2160214	.36182755
Ratner 2004	.28879893	.21578334	.3618145
Pisinger 2009_IC	.28489083	.21209724	.3576844
Schumann 2008	.28993225	.21700305	.36286142
Smeulders 2009	.2897073	.21669564	.36271897
Willemsen 2006	.28878102	.21565478	.36190724
Froelicher 2004	.2888369	.2156895	.36198431
Joseph 2008	.28649718	.21347816	.3595162
Segan 2011	.28925118	.21606168	.36244068
Tappin 2005	.28771377	.21452762	.36089993
Reid 2008	.28579274	.21282332	.35876215
Sutton 2007	.28927666	.21607798	.36247531
McClure 2005	.28707126	.21392442	.36021808
Toll 2010	.28889361	.21547121	.36231601
Malchodi 2003	.28650999	.21330795	.35971203
Bock 2008	.28700489	.21359903	.36041078
Groeneveld 2011	.28622529	.21289837	.3595522
Muniz 2010	.28708178	.21344067	.3607229
Pisinger 2009_GC	.28431812	.21147212	.35716408
Bernstein 2011	.28603497	.21263529	.35943463
Nollen 2007	.28650093	.21286808	.36013377
Neuner 2009	.28682762	.21293691	.36071834
Giannuzzi 2008	.28696162	.21248785	.36143538
Stotts 2009_USF	.28504762	.21189053	.35820469
Vale 2003	.28583804	.21228375	.35939232
Katz 2004	.28556955	.21202113	.35911798
Hall 2009_ENRT+CBT	.28511447	.21178296	.35844594
McBride 2004_WOI	.28490692	.21167983	.35813403
Rigotti 2006	.28459525	.21143934	.35775119
McBride 2004_PAI	.28459272	.21135075	.35783467
Molyneux 2003_Cou+NRT	.28425473	.21123381	.35727564
Glasgow 2009	.28433505	.21116298	.35750711
Wood 2008	.28505719	.21079186	.35932252
Thomsen 2010	.28414914	.21110368	.35719457
Hovell 2009	.28428596	.21070169	.35787022
Joseph 2011	.28352454	.20971745	.3573316
Harting 2006	.2834326	.20976351	.35710168
Rabius 2004	.28403804	.20826307	.35981303
Unrod 2007	.2833651	.20985399	.35687616
Hyman 2007_Seq	.28345639	.2103997	.35651305
Stotts 2009_MI+USF	.2831997	.20999767	.35640174
Lawrence 2003_SHM+ICI	.28341088	.21052803	.35629374
Sallit 2009	.28252995	.20904131	.3560186
Kotz 2009_CC+Nort	.28313908	.21018441	.35609373
Kotz 2009_HE+Nort	.28300157	.21004936	.35595375
Hall 2009_ECBT	.28204787	.20872599	.35536975
Gordon 2010a_3As	.28275281	.20972218	.35578346
Borrelli 2005	.28302893	.21013579	.35592207
El-Mohandes 2011	.28116089	.20767091	.35465086
Chouinard 2005_IC	.28271127	.20974317	.35567939
Chouinard 2005_IC+FU	.28271127	.20974317	.35567939
Hyman 2007_Sim	.28239873	.20936237	.3554351
Hilberink 2011	.28185672	.20870957	.35500389
Gordon 2010a_5As	.28232425	.20930484	.3553437

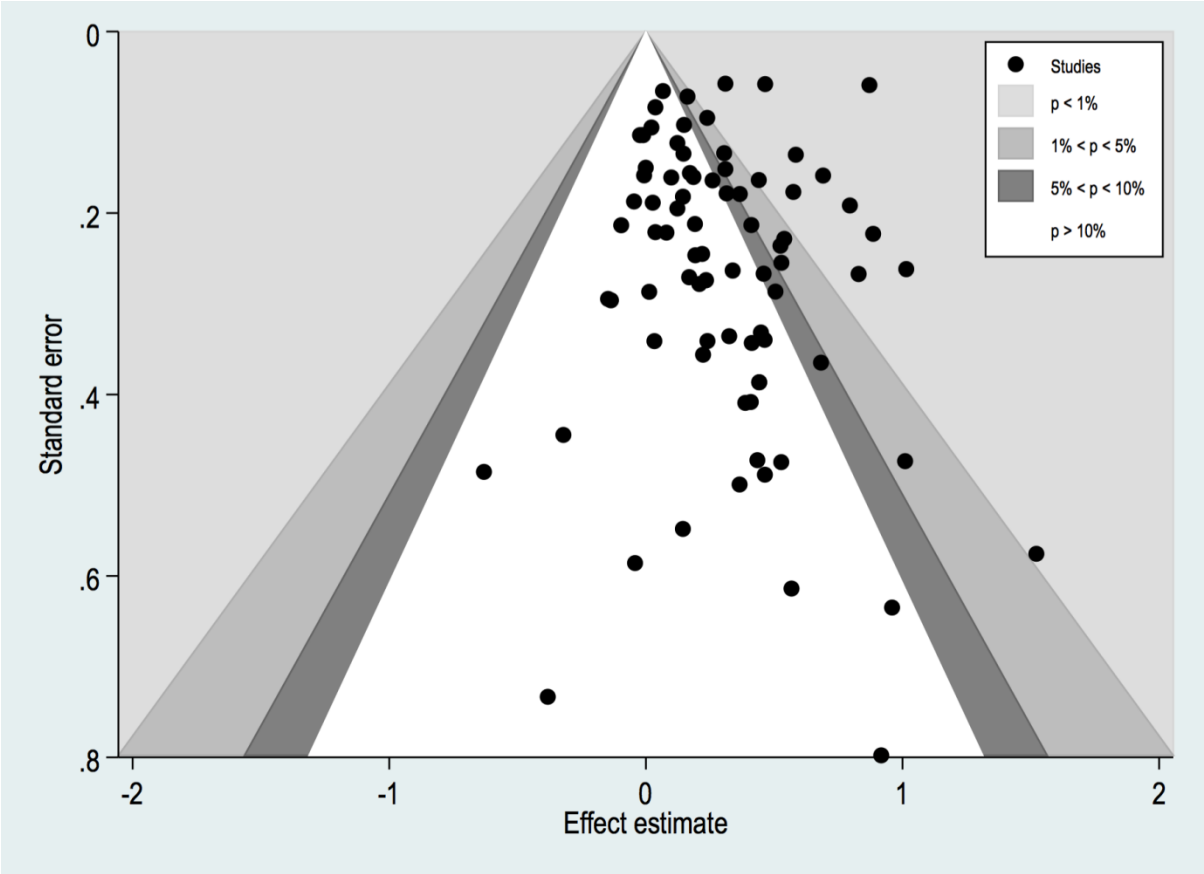
```
 Lawrence 2003_SHM |   .28292802      .21005081    .35580525
 Free 2011         |   .27979857      .20534651    .35425064
 Azodi 2009        |   .2815319       .20845202    .35461175
 Rodriguez-Aralejo 2003|.28074014     .20758221    .35389808
 Dornelas 2006     |   .28256762      .20969617    .35543904
 Vestfold HSG      |   .28093225      .2078148     .35404968
 Swartz 2006       |   .28044111      .20728514    .3535971
 Ondersma 2012_CD-5As+CM-Lite|.28286144.2100611    .35566181
 Pbert 2004        |   .27900663      .20582011    .35219318
 Gordon 2010b      |   .27792534      .20474662    .35110408
 Ruger 2008_RQ     |   .28079662      .20793118    .35366204
 An 2006           |   .27642381      .20363873    .34920889
 Vidrine 2012      |   .27568981      .20315783    .34822178
 Carpenter 2004_SR+NRT|.27761143      .20494902    .35027385
 Anthonisen 2005   |   .25772455      .19937061    .31607848
 Mohiuddin 2007    |   .27545309      .2030713     .34783489
 Baker 2006        |   .28248304      .20978869    .35517737
 Ondersma 2012_CD-5As| .28169063      .20901677    .35436451
 de Vries 2006     |   .28008237      .20748083    .35268393
 Carpenter 2004_MA+NRT|.27522409      .20303012    .34741804
 Armitage 2008     |   .27916875      .20692916    .35140833
-------------------+-------------------------------------------------------------
 Combined          |   .28371844      .21116025    .35627663
-------------------------------------------------------------------------------
```

.

No trials had point estimate outside the combined CI.



Publication bias




```
Egger's test for small-study effects:

Regress standard normal deviate of intervention

effect estimate against its standard error


Number of studies =  80                                  Root MSE      =   1.779

------------------------------------------------------------------------------

     Std_Eff |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

-------------+----------------------------------------------------------------

       slope |   .3127805   .0549599     5.69   0.000     .2033637    .4221973

        bias |  -.1220548   .3492682    -0.35   0.728    -.8173943    .5732847

------------------------------------------------------------------------------


Test of H0: no small-study effects          P = 0.728


. metatrim ES _SE         if Target_Beh==3, reffect funnel


Note: default data input format (theta, se_theta) assumed.
```

Meta-analysis

Method	Pooled Est	95% CI Lower	95% CI Upper	Asymptotic z_value	Asymptotic p_value	No. of studies
Fixed	0.297	0.263	0.331	16.881	0.000	80
Random	0.284	0.211	0.356	7.664	0.000	

Test for heterogeneity: Q= 247.376 on 79 degrees of freedom (p= 0.000)

Moment-based estimate of between studies variance = 0.055

Trimming estimator: Linear

Meta-analysis type: Random-effects model

iteration	estimate	Tn	# to trim	diff
1	0.284	1670	1	3240
2	0.279	1704	2	68
3	0.271	1760	4	112
4	0.265	1799	5	78
5	0.264	1810	5	22
6	0.264	1810	5	0

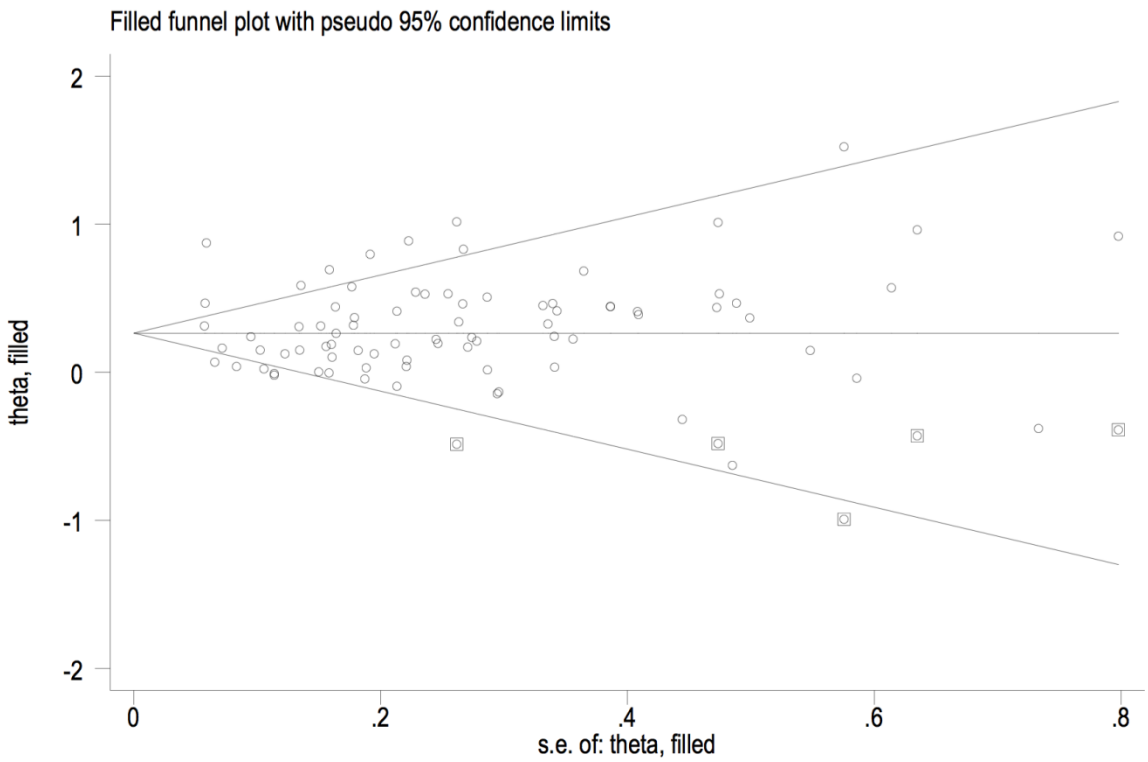
Filled

Meta-analysis

Method	Pooled Est	95% CI Lower	95% CI Upper	Asymptotic z_value	Asymptotic p_value	No. of studies
Fixed	0.290	0.256	0.325	16.569	0.000	85
Random	0.264	0.191	0.337	7.067	0.000	

Test for heterogeneity: Q= 266.013 on 84 degrees of freedom (p= 0.000)

Moment-based estimate of between studies variance = 0.058



Univariate analysis

Meta-regression of BCT Clusters

```
. *Model Rev_SMK_U1a

.

. tabulate  Rev_Cluster1_SS                if Target_Beh==3


  Cluster1: |

     Social |

  Support - |

Controlling |

        for |

 comparator |

        use |      Freq.     Percent        Cum.

------------+-----------------------------------

          0 |         29       36.25       36.25

          1 |         51       63.75      100.00

------------+-----------------------------------

      Total |         80      100.00
```

```
.
. metareg ES  Rev_Cluster1_SS             if Target_Beh==3, wsse(_SE) knapphartung reml

Meta-regression                                         Number of obs  =      80
REML estimate of between-study variance                 tau2           =  .03503
% residual variation due to heterogeneity               I-squared_res  =  62.82%
Proportion of between-study variance explained          Adj R-squared  =  12.17%
With Knapp-Hartung modification
------------------------------------------------------------------------------
             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
----------------+-------------------------------------------------------------
Rev_Cluster1_SS |   .1421851    .067179     2.12   0.037      .008442    .2759281
          _cons |   .1915088   .0530146     3.61   0.001     .0859648    .2970528
------------------------------------------------------------------------------


.
. *Model Rev_SMK_U1b
.
. tabulate  Rev_Cluster2_Reg              if Target_Beh==3

  Cluster2: |
 Regulation |
          - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         42       52.50       52.50
          1 |         38       47.50      100.00
------------+-----------------------------------
      Total |         80      100.00
```

```
.
. metareg ES  Rev_Cluster2_Reg    if Target_Beh==3, wsse(_SE) knapphartung reml

Meta-regression                                        Number of obs  =      80
REML estimate of between-study variance                tau2           =  .03744
% residual variation due to heterogeneity              I-squared_res  =  62.29%
Proportion of between-study variance explained         Adj R-squared  =   6.12%
With Knapp-Hartung modification
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
Rev_Cluster2_Reg |   .1026321   .0664023     1.55   0.126    -.0295647    .2348289
           _cons |   .2315725   .0458801     5.05   0.000     .1402323    .3229127
------------------------------------------------------------------------------


.
. *Model Rev_SMK_U1c
.
. tabulate  Rev_Cluster3_FM               if Target_Beh==3

  Cluster3: |
 Feedback & |
 Monitoring |
          - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         64       80.00       80.00
          1 |         16       20.00      100.00
------------+-----------------------------------
      Total |         80      100.00
```

```
.
. metareg ES  Rev_Cluster3_FM            if Target_Beh==3, wsse(_SE) knapphartung reml

Meta-regression                                         Number of obs  =      80
REML estimate of between-study variance                 tau2           =  .04101
% residual variation due to heterogeneity               I-squared_res  =  68.32%
Proportion of between-study variance explained          Adj R-squared  =  -2.84%
With Knapp-Hartung modification
------------------------------------------------------------------------------
             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
----------------+-------------------------------------------------------------
Rev_Cluster3_FM |   -.040883   .0877276    -0.47   0.642    -.2155353    .1337692
          _cons |   .2888415   .0376873     7.66   0.000     .2138119    .3638711
------------------------------------------------------------------------------

.
. *Model Rev_SMK_U1d
.
. tabulate  Rev_Cluster4_Asc             if Target_Beh==3

  Cluster4: |
Association |
        s - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         80      100.00      100.00
------------+-----------------------------------
      Total |         80      100.00

.
.
```

```
. *Model Rev_SMK_U1e

.

. tabulate  Rev_Cluster5_RS               if Target_Beh==3


  Cluster5: |
 Repetition |
        and |
Substitutio |
       ns - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         69       86.25       86.25
          1 |         11       13.75      100.00
------------+-----------------------------------
      Total |         80      100.00


.

. metareg ES  Rev_Cluster5_RS             if Target_Beh==3, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      80
REML estimate of between-study variance               tau2           =  .04098
% residual variation due to heterogeneity             I-squared_res  =  68.44%
Proportion of between-study variance explained        Adj R-squared  =  -2.76%
With Knapp-Hartung modification
------------------------------------------------------------------------------
             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
----------------+-------------------------------------------------------------
Rev_Cluster5_RS |   .0058622   .0866988     0.07   0.946    -.1667418    .1784662
          _cons |   .2801747   .0378088     7.41   0.000     .2049031    .3554463
------------------------------------------------------------------------------
```

```
.

. *Model Rev_SMK_U1f

.

. tabulate  Rev_Cluster6_Ant              if Target_Beh==3


  Cluster6: |
Antecedents |
          - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         57       71.25       71.25
          1 |         23       28.75      100.00
------------+-----------------------------------
      Total |         80      100.00


.

. metareg ES  Rev_Cluster6_Ant    if Target_Beh==3, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      80
REML estimate of between-study variance               tau2           =  .04005
% residual variation due to heterogeneity             I-squared_res  =  64.85%
Proportion of between-study variance explained        Adj R-squared  =  -0.43%
With Knapp-Hartung modification
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
Rev_Cluster6_Ant |    .037381    .071746     0.52   0.604    -.1054542    .1802163
           _cons |   .2686712   .0413766     6.49   0.000     .1862968    .3510457
------------------------------------------------------------------------------


.
```

```
. *Model Rev_SMK_U1g

.

. tabulate  Rev_Cluster7_SK               if Target_Beh==3


  Cluster7: |
    Shaping |
Knowledge - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         68       85.00       85.00
          1 |         12       15.00      100.00
------------+-----------------------------------
      Total |         80      100.00


.

. metareg ES  Rev_Cluster7_SK             if Target_Beh==3, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      80
REML estimate of between-study variance               tau2           =  .04103
% residual variation due to heterogeneity             I-squared_res  =  68.17%
Proportion of between-study variance explained        Adj R-squared  =  -2.89%
With Knapp-Hartung modification
------------------------------------------------------------------------------
             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
----------------+-------------------------------------------------------------
Rev_Cluster7_SK |   .0309018    .092718     0.33   0.740    -.1536855    .2154892
          _cons |   .2763395   .0371495     7.44   0.000     .2023805    .3502985
------------------------------------------------------------------------------


.

. *Model Rev_SMK_U1h
```

```
.
. tabulate  Rev_Cluster8_SB               if Target_Beh==3


  Cluster8: |
Self-belief |
          - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         77       96.25       96.25
          1 |          3        3.75      100.00
------------+-----------------------------------
      Total |         80      100.00


.
. metareg ES  Rev_Cluster8_SB             if Target_Beh==3, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      80
REML estimate of between-study variance               tau2           =  .04108
% residual variation due to heterogeneity             I-squared_res  =  68.09%
Proportion of between-study variance explained        Adj R-squared  =  -3.02%
With Knapp-Hartung modification
------------------------------------------------------------------------------
             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
----------------+-------------------------------------------------------------
Rev_Cluster8_SB |    .037205   .1295541     0.29   0.775    -.2207173    .2951274
          _cons |   .2785332   .0353958     7.87   0.000     .2080657    .3490008
------------------------------------------------------------------------------


.
. *Model Rev_SMK_U1i
.
```

```
. tabulate  Rev_Cluster9_SC               if Target_Beh==3


  Cluster9: |
  Scheduled |
Consequence |
        s - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         79       98.75       98.75
          1 |          1        1.25      100.00
------------+-----------------------------------
      Total |         80      100.00


.
.
. *Model Rev_SMK_U1j
.
. tabulate  Rev_Cluster10_RT              if Target_Beh==3


 Cluster10: |
   Reward & |
   Threat - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         77       96.25       96.25
          1 |          3        3.75      100.00
------------+-----------------------------------
      Total |         80      100.00
```

```
.
. metareg ES  Rev_Cluster10_RT    if Target_Beh==3, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =      80
REML estimate of between-study variance               tau2           =  .04099
% residual variation due to heterogeneity             I-squared_res  =  68.43%
Proportion of between-study variance explained        Adj R-squared  =  -2.78%
With Knapp-Hartung modification
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
Rev_Cluster10_RT |  -.0822554   .1417148    -0.58   0.563     -.364388    .1998771
           _cons |   .2863436   .0351219     8.15   0.000     .2164212     .356266
------------------------------------------------------------------------------

.
. *Model Rev_SMK_U1k
.
. tabulate  Rev_Cluster11_GP              if Target_Beh==3

 Cluster11: |
    Goals & |
 Planning - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         30       37.50       37.50
          1 |         50       62.50      100.00
------------+-----------------------------------
      Total |         80      100.00
```

```
.
. metareg ES  Rev_Cluster11_GP    if Target_Beh==3, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =      80
REML estimate of between-study variance               tau2           =  .03884
% residual variation due to heterogeneity             I-squared_res  =  67.20%
Proportion of between-study variance explained        Adj R-squared  =   2.62%
With Knapp-Hartung modification
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
Rev_Cluster11_GP |  -.0716221   .0693257    -1.03   0.305    -.2096389    .0663946
           _cons |    .325829   .0549335     5.93   0.000     .2164648    .4351932
------------------------------------------------------------------------------


.
. *Model Rev_SMK_U11
.
. tabulate  Rev_Cluster12_CO              if Target_Beh==3

 Cluster12: |
 Comparison |
of Outcomes |
          - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         58       72.50       72.50
          1 |         22       27.50      100.00
------------+-----------------------------------
      Total |         80      100.00
```

```
.
. metareg ES  Rev_Cluster12_CO    if Target_Beh==3, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =      80
REML estimate of between-study variance               tau2           =  .04005
% residual variation due to heterogeneity             I-squared_res  =  67.69%
Proportion of between-study variance explained        Adj R-squared  =  -0.42%
With Knapp-Hartung modification
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
Rev_Cluster12_CO |  -.0531908   .0773602    -0.69   0.494    -.2072031    .1008215
           _cons |   .2947708   .0392136     7.52   0.000     .2167026    .3728391
------------------------------------------------------------------------------

.
. *Model Rev_SMK_U1m
.
. tabulate  Rev_Cluster13_Id              if Target_Beh==3

 Cluster13: |
 Identity - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         73       91.25       91.25
          1 |          7        8.75      100.00
------------+-----------------------------------
      Total |         80      100.00

.
. metareg ES  Rev_Cluster13_Id    if Target_Beh==3, wsse(_SE) knapphartung reml
```

```
Meta-regression                                     Number of obs  =      80
REML estimate of between-study variance             tau2           =  .04065
% residual variation due to heterogeneity           I-squared_res  =  67.79%
Proportion of between-study variance explained      Adj R-squared  =  -1.93%
With Knapp-Hartung modification
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
Rev_Cluster13_Id |  -.0611302   .1196144    -0.51   0.611    -.2992641    .1770038
           _cons |    .286624   .0355521     8.06   0.000     .2158452    .3574027
------------------------------------------------------------------------------


.
. *Model Rev_SMK_U1n
.
. tabulate  Rev_Cluster14_NC              if Target_Beh==3


 Cluster14: |
    Natural |
Consequence |
        s - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         55       68.75       68.75
          1 |         25       31.25      100.00
------------+-----------------------------------
      Total |         80      100.00


.
. metareg ES  Rev_Cluster14_NC    if Target_Beh==3, wsse(_SE) knapphartung reml
```

```
Meta-regression                                     Number of obs  =      80
REML estimate of between-study variance             tau2           =  .04062
% residual variation due to heterogeneity           I-squared_res  =  68.23%
Proportion of between-study variance explained      Adj R-squared  =  -1.86%
With Knapp-Hartung modification
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
Rev_Cluster14_NC |   .0163714   .0756082     0.22   0.829     -.134153    .1668958
           _cons |   .2766384   .0399911     6.92   0.000     .1970221    .3562546
------------------------------------------------------------------------------


.
. *Model Rev_SMK_U1o
.
. tabulate  Rev_Cluster15_CB              if Target_Beh==3


 Cluster15: |
 Comparison |
         of |
Behaviour - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         76       95.00       95.00
          1 |          4        5.00      100.00
------------+-----------------------------------
      Total |         80      100.00


.
. metareg ES  Rev_Cluster15_CB    if Target_Beh==3, wsse(_SE) knapphartung reml
```

```
Meta-regression                                     Number of obs  =      80
REML estimate of between-study variance             tau2           =  .04069
% residual variation due to heterogeneity           I-squared_res  =  67.74%
Proportion of between-study variance explained      Adj R-squared  =  -2.04%
With Knapp-Hartung modification
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
Rev_Cluster15_CB |   .0564418   .1441355     0.39   0.696      -.23051    .3433935
           _cons |   .2779036   .0350037     7.94   0.000     .2082165    .3475907
------------------------------------------------------------------------------


.
. *Model Rev_SMK_U1p
.
. tabulate  Rev_Cluster16_CL              if Target_Beh==3


 Cluster16: |
     Covert |
 Learning - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         79       98.75       98.75
          1 |          1        1.25      100.00
------------+-----------------------------------
      Total |         80      100.00


.
.
```

Meta-regression of Intervention function

```
.
```

```
. *Model Rev_SMK_U2a

.

. tabulate  Rev_iif1                              if Target_Beh==3


   Rev_iif1 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         48       60.00       60.00
          1 |         32       40.00      100.00
------------+-----------------------------------
      Total |         80      100.00


.

. metareg ES  Rev_iif1                    if Target_Beh==3, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      80
REML estimate of between-study variance               tau2           =  .04083
% residual variation due to heterogeneity             I-squared_res  =  68.39%
Proportion of between-study variance explained        Adj R-squared  =  -2.38%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif1 |  -.0260823    .070095    -0.37   0.711    -.1656307    .1134662
       _cons |   .2911203    .043098     6.75   0.000     .2053188    .3769218
------------------------------------------------------------------------------


.

. *Model Rev_SMK_U2b

.

. tabulate  Rev_iif2                              if Target_Beh==3


   Rev_iif2 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         59       73.75       73.75
```

```
          1 |         21       26.25      100.00
------------+-----------------------------------
      Total |         80      100.00

.
. metareg ES  Rev_iif2                    if Target_Beh==3, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =      80
REML estimate of between-study variance               tau2           =  .04086
% residual variation due to heterogeneity             I-squared_res  =  68.47%
Proportion of between-study variance explained        Adj R-squared  =  -2.47%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif2 |  -.0087047   .0770197    -0.11   0.910    -.1620392    .1446298
       _cons |   .2835746   .0396583     7.15   0.000      .204621    .3625283
------------------------------------------------------------------------------

.
. *Model Rev_SMK_U2c
.
. tabulate  Rev_iif3                              if Target_Beh==3

   Rev_iif3 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         74       92.50       92.50
          1 |          6        7.50      100.00
------------+-----------------------------------
      Total |         80      100.00

.
. metareg ES  Rev_iif3                    if Target_Beh==3, wsse(_SE) knapphartung reml
```

```
Meta-regression                                     Number of obs  =      80
REML estimate of between-study variance             tau2           =   .0405
% residual variation due to heterogeneity           I-squared_res  =  68.33%
Proportion of between-study variance explained      Adj R-squared  =  -1.55%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif3 |   -.140571   .1252342    -1.12   0.265    -.3898931    .1087511
       _cons |   .2923916   .0353465     8.27   0.000     .2220221     .362761
------------------------------------------------------------------------------


.
. *Model Rev_SMK_U2d
.
. tabulate  Rev_iif4                              if Target_Beh==3

   Rev_iif4 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         79       98.75       98.75
          1 |          1        1.25      100.00
------------+-----------------------------------
      Total |         80      100.00


.
.
. *Model Rev_SMK_U2e
.
. tabulate  Rev_iif5                              if Target_Beh==3

   Rev_iif5 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         61       76.25       76.25
          1 |         19       23.75      100.00
```

```
------------+-----------------------------------
      Total |         80      100.00


.
. metareg ES Rev_iif5                             if Target_Beh==3, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      80
REML estimate of between-study variance               tau2           =  .04055
% residual variation due to heterogeneity             I-squared_res  =  67.82%
Proportion of between-study variance explained        Adj R-squared  =  -1.68%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif5 |  -.0269759   .0763938    -0.35   0.725    -.1790642    .1251124
       _cons |   .2884923   .0397076     7.27   0.000     .2094405    .3675442
------------------------------------------------------------------------------


.
. *Model Rev_SMK_U2f
.
. tabulate  Rev_iif6                              if Target_Beh==3


   Rev_iif6 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         80      100.00      100.00
------------+-----------------------------------
      Total |         80      100.00


.
.
. *Model Rev_SMK_U2g
.
. tabulate Rev_iif7                               if Target_Beh==3
```

```
   Rev_iif7 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         66       82.50       82.50
          1 |         14       17.50      100.00
------------+-----------------------------------
      Total |         80      100.00

.
. metareg ES  Rev_iif7                    if Target_Beh==3, wsse(_SE) knapphartung reml

Meta-regression                                         Number of obs  =      80
REML estimate of between-study variance                 tau2           =  .03806
% residual variation due to heterogeneity               I-squared_res  =  61.92%
Proportion of between-study variance explained          Adj R-squared  =   4.56%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif7 |   .0915331   .0830859     1.10   0.274    -.0738782    .2569443
       _cons |   .2622651   .0372852     7.03   0.000     .1880359    .3364942
------------------------------------------------------------------------------

.
. *Model Rev_SMK_U2h
.
. tabulate  Rev_iif8                              if Target_Beh==3

   Rev_iif8 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         79       98.75       98.75
          1 |          1        1.25      100.00
------------+-----------------------------------
      Total |         80      100.00
```

```
.

.

. *Model Rev_SMK_U2i

.

. tabulate  Rev_iif9                              if Target_Beh==3


   Rev_iif9 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         25       31.25       31.25
          1 |         55       68.75      100.00
------------+-----------------------------------
      Total |         80      100.00


.

. metareg ES Rev_iif9                             if Target_Beh==3, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      80
REML estimate of between-study variance               tau2           =  .04026
% residual variation due to heterogeneity             I-squared_res  =  66.44%
Proportion of between-study variance explained        Adj R-squared  =  -0.96%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif9 |    .037996   .0722555     0.53   0.600    -.1058537    .1818456
       _cons |   .2555157   .0593455     4.31   0.000     .1373679    .3736635
------------------------------------------------------------------------------

.
```

Meta-regression of Theory-basedness

```
..

. *Model Rev_SMK_U3

.

. tabulate itb                            if Target_Beh==3
```

```
        ITB |      Freq.     Percent        Cum.
------------+-----------------------------------
         No |         59       73.75       73.75
        Yes |         21       26.25      100.00
------------+-----------------------------------
      Total |         80      100.00


.
. metareg ES  itb                        if Target_Beh==3, wsse(_SE) knapphartung reml


Meta-regression                                         Number of obs  =      80
REML estimate of between-study variance                 tau2           =  .03572
% residual variation due to heterogeneity               I-squared_res  =  64.96%
Proportion of between-study variance explained          Adj R-squared  =  10.43%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         itb |  -.1338075   .0767846    -1.74   0.085    -.2866739    .0190588
       _cons |   .3121625   .0375241     8.32   0.000     .2374577    .3868672
------------------------------------------------------------------------------


..
```

DIET

Meta-analysis

```
. metan ES _SE if Target_Beh==5, label(namevar=StudyID) sortby(StudyID) random effect(SMD)
astext(50) textsize(100)  force xlabel(-1, -0.5, 0, 0.5, 1) favo

> urs (Favours Control # Favours Intervention)


           Study     |     ES    [95% Conf. Interval]     % Weight
---------------------+-------------------------------------------------
Burke 2008           |  0.206      -0.078     0.490          3.66
Clark 2004           |  0.548       0.148     0.947          2.73
Eakin 2007           |  0.380       0.100     0.660          3.70
Eakin 2010           |  0.204       0.014     0.394          4.53
Ellingsen 2005       |  0.339       0.173     0.506          4.74
Giannuzzi 2008       |  0.222       0.153     0.291          5.44
Glasgow 2006         |  0.368       0.139     0.597          4.17
Groeneveld 2011      |  1.114       0.910     1.317          4.40
Guelinckx 2010       |  0.399      -0.031     0.828          2.53
```

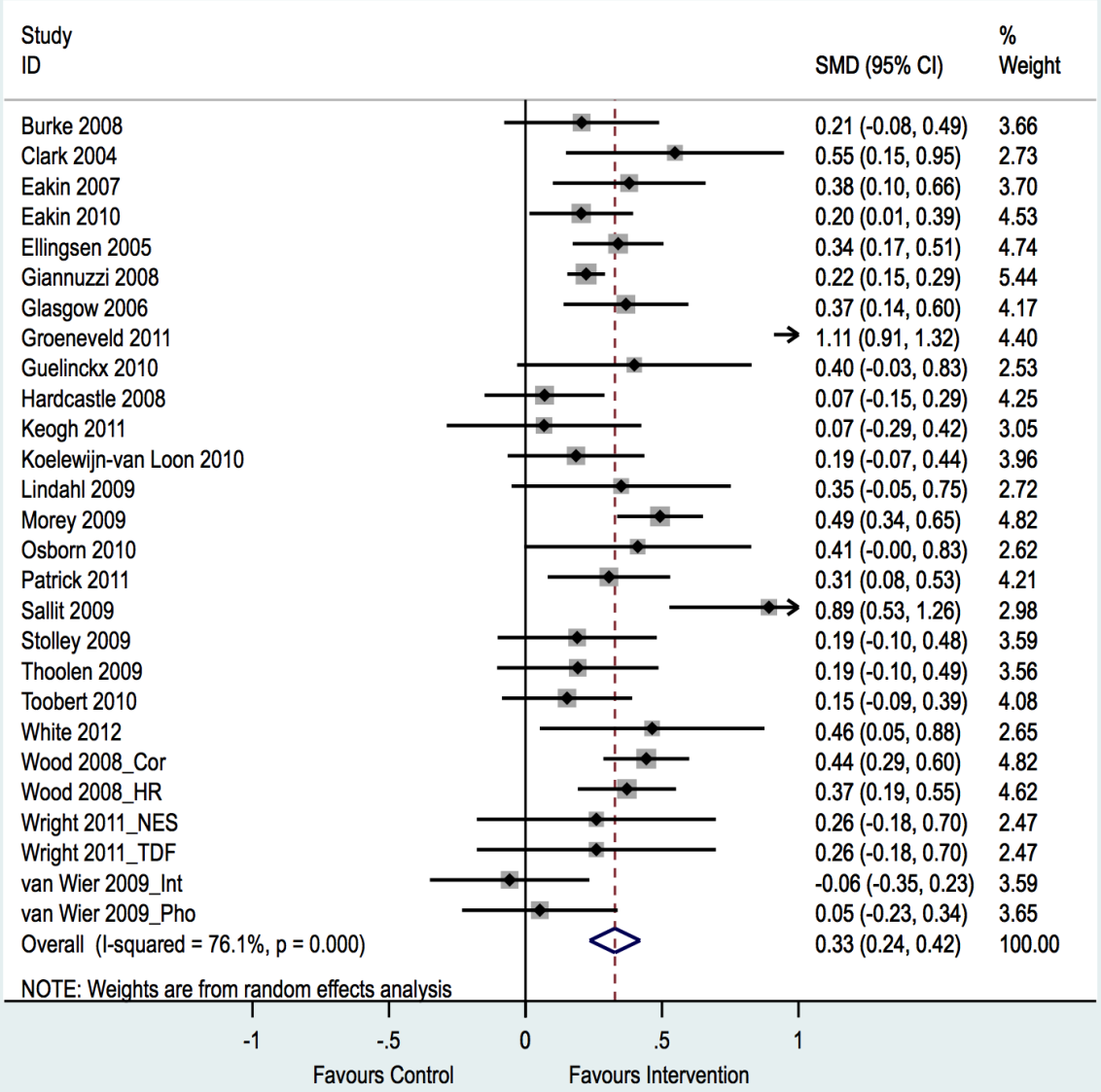
Hardcastle 2008	0.070	-0.150	0.290	4.25
Keogh 2011	0.068	-0.289	0.424	3.05
Koelewijn-van Loon 2	0.185	-0.065	0.436	3.96
Lindahl 2009	0.351	-0.051	0.752	2.72
Morey 2009	0.493	0.336	0.650	4.82
Osborn 2010	0.411	-0.005	0.827	2.62
Patrick 2011	0.306	0.081	0.530	4.21
Sallit 2009	0.892	0.527	1.257	2.98
Stolley 2009	0.189	-0.102	0.481	3.59
Thoolen 2009	0.192	-0.104	0.487	3.56
Toobert 2010	0.152	-0.086	0.391	4.08
White 2012	0.464	0.052	0.875	2.65
Wood 2008_Cor	0.443	0.285	0.600	4.82
Wood 2008_HR	0.372	0.192	0.551	4.62
Wright 2011_NES	0.260	-0.178	0.697	2.47
Wright 2011_TDF	0.260	-0.178	0.697	2.47
van Wier 2009_Int	-0.058	-0.350	0.234	3.59
van Wier 2009_Pho	0.053	-0.232	0.337	3.65
D+L pooled ES	0.328	0.235	0.420	100.00

Heterogeneity chi-squared = 108.57 (d.f. = 26) p = 0.000

I-squared (variation in ES attributable to heterogeneity) = 76.1%

Estimate of between-study variance Tau-squared = 0.0394

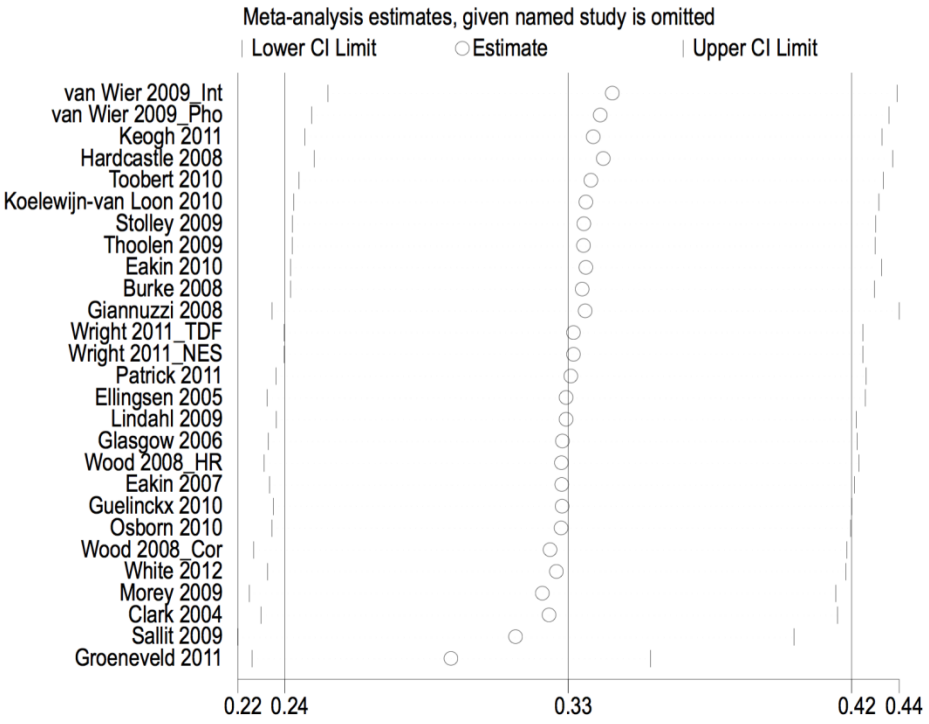
Test of ES=0 : z= 6.97 p = 0.000


Study
ID
SMD (95% CI)
%
Weight
Burke 2008 0.21 (-0.08, 0.49) 3.66
Clark 2004 0.55 (0.15, 0.95) 2.73
Eakin 2007 0.38 (0.10, 0.66) 3.70
Eakin 2010 0.20 (0.01, 0.39) 4.53
Ellingsen 2005 0.34 (0.17, 0.51) 4.74
Giannuzzi 2008 0.22 (0.15, 0.29) 5.44
Glasgow 2006 0.37 (0.14, 0.60) 4.17
Groeneveld 2011 1.11 (0.91, 1.32) 4.40
Guelinckx 2010 0.40 (-0.03, 0.83) 2.53
Hardcastle 2008 0.07 (-0.15, 0.29) 4.25
Keogh 2011 0.07 (-0.29, 0.42) 3.05
Koelewijn-van Loon 2010 0.19 (-0.07, 0.44) 3.96
Lindahl 2009 0.35 (-0.05, 0.75) 2.72
Morey 2009 0.49 (0.34, 0.65) 4.82
Osborn 2010 0.41 (-0.00, 0.83) 2.62
Patrick 2011 0.31 (0.08, 0.53) 4.21
Sallit 2009 0.89 (0.53, 1.26) 2.98
Stolley 2009 0.19 (-0.10, 0.48) 3.59
Thoolen 2009 0.19 (-0.10, 0.49) 3.56
Toobert 2010 0.15 (-0.09, 0.39) 4.08
White 2012 0.46 (0.05, 0.88) 2.65
Wood 2008_Cor 0.44 (0.29, 0.60) 4.82
Wood 2008_HR 0.37 (0.19, 0.55) 4.62
Wright 2011_NES 0.26 (-0.18, 0.70) 2.47
Wright 2011_TDF 0.26 (-0.18, 0.70) 2.47
van Wier 2009_Int -0.06 (-0.35, 0.23) 3.59
van Wier 2009_Pho 0.05 (-0.23, 0.34) 3.65
Overall (I-squared = 76.1%, p = 0.000) 0.33 (0.24, 0.42) 100.00
NOTE: Weights are from random effects analysis
-1
-.5
0
.5
1
Favours Control
Favours Intervention

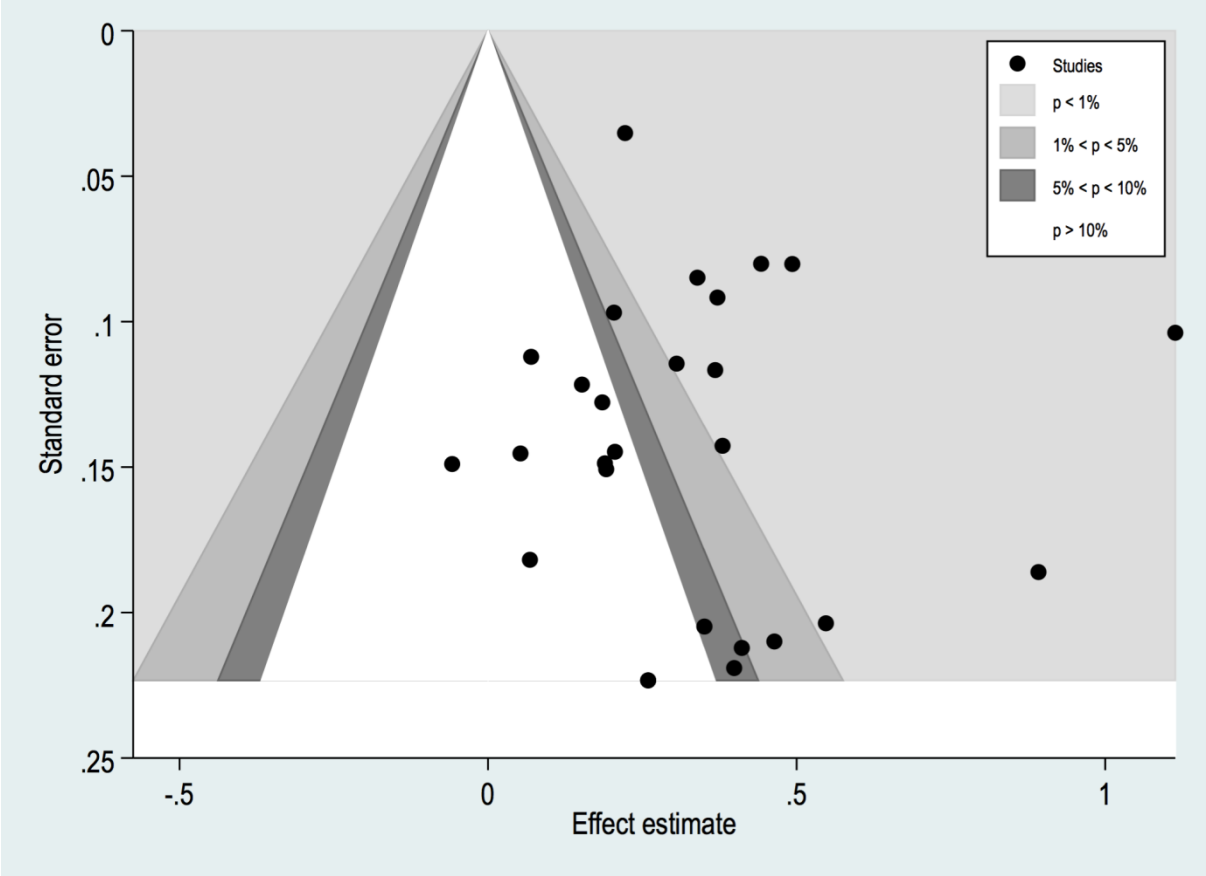
Outliers

```
. metaninf ES _SE if Target_Beh==5, label(namevar=StudyID) random

------------------------------------------------------------------------------
 Study omitted      |   Estimate       [95%  Conf.  Interval]
--------------------+---------------------------------------------------------
 van Wier 2009_Int  |   .34192914      .24943407    .43442419
 van Wier 2009_Pho  |   .33800712      .2442046     .43180963
 Keogh 2011         |   .33575717      .24198081    .42953351
 Hardcastle 2008    |   .33903766      .24500984    .43306547
 Toobert 2010       |   .33501554      .24005148    .42997959
 Koelewijn-van Loon 2010|.33344278    .23834178    .42854378
 Stolley 2009       |   .33272418      .23796664    .42748171
 Thoolen 2009       |   .33259475      .23785943    .42733011
 Eakin 2010         |   .33336931      .23729654    .42944208
 Burke 2008         |   .33220142      .23730873    .42709413
 Giannuzzi 2008     |   .33321345      .23129018    .43513674
 Wright 2011_TDF    |   .32930961      .23529416    .42332503
 Wright 2011_NES    |   .32930961      .23529416    .42332503
 Patrick 2011       |   .32851332      .23262993    .42439669
 Ellingsen 2005     |   .32696277      .22975309    .42417243
 Lindahl 2009       |   .32692501      .23272125    .42112878
 Glasgow 2006       |   .32580164      .23009144    .42151183
 Wood 2008_HR       |   .32543096      .22877735    .42208457
 Eakin 2007         |   .32555148      .23050253    .42060041
 Guelinckx 2010     |   .32571724      .23170744    .41972706
 Osborn 2010        |   .3253164       .23126429    .41936854
 Wood 2008_Cor      |   .32178867      .22538954    .41818777
 White 2012         |   .3238537       .22990365    .41780376
 Morey 2009         |   .31922948      .2239428     .41451618
 Clark 2004         |   .32139552      .2277109     .41508013
 Sallit 2009        |   .31058943      .22018847    .4009904
 Groeneveld 2011    |   .28959233      .22486502    .3543196
--------------------+---------------------------------------------------------
 Combined           |   .32758663      .23546573    .41970753
------------------------------------------------------------------------------
```

No trials had point estimate outside the combined CI.


Meta-analysis estimates, given named study is omitted
Lower CI Limit
Estimate
Upper CI Limit
van Wier 2009_Int
van Wier 2009_Pho
Keogh 2011
Hardcastle 2008
Toobert 2010
Koelewijn-van Loon 2010
Stolley 2009
Thoolen 2009
Eakin 2010
Burke 2008
Giannuzzi 2008
Wright 2011_TDF
Wright 2011_NES
Patrick 2011
Ellingsen 2005
Lindahl 2009
Glasgow 2006
Wood 2008_HR
Eakin 2007
Guelinckx 2010
Osborn 2010
Wood 2008_Cor
White 2012
Morey 2009
Clark 2004
Sallit 2009
Groeneveld 2011
0.22
0.24
0.33
0.42
0.44

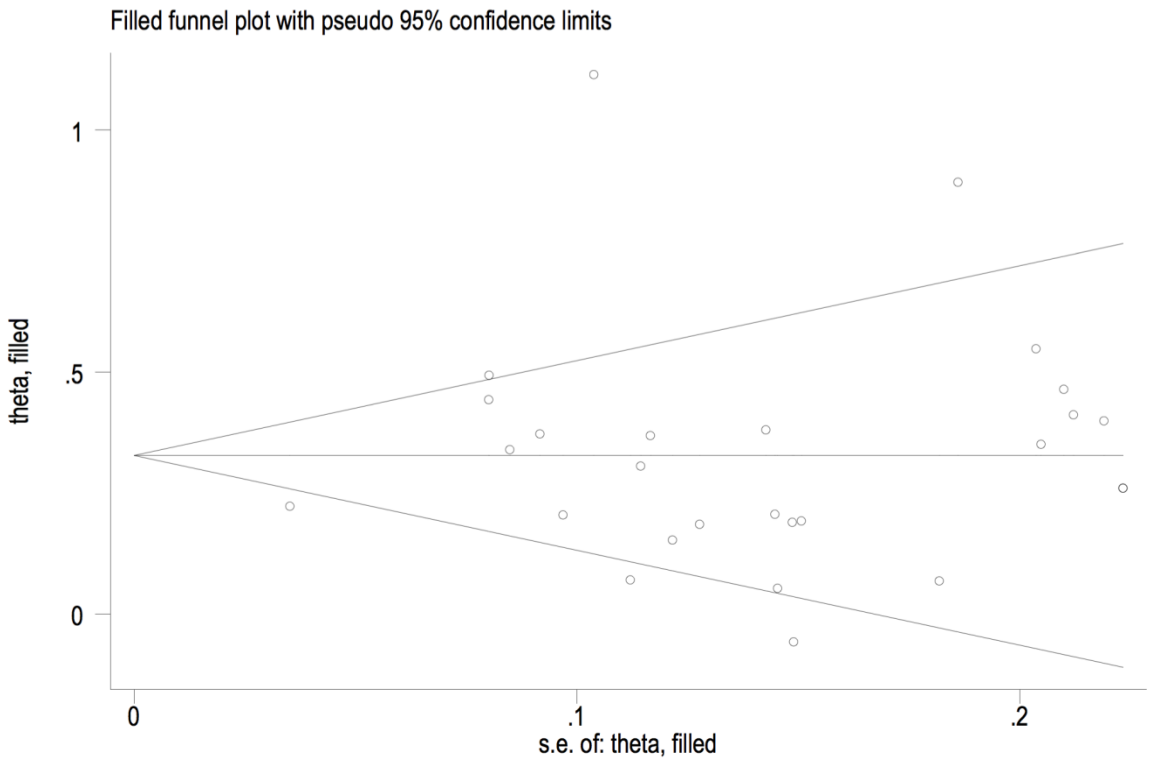
Publication bias




```
. metabias ES _SE         if Target_Beh==5, egger graph

Note: data input format theta se_theta assumed.

Egger's test for small-study effects:
Regress standard normal deviate of intervention
effect estimate against its standard error

Number of studies =  27                                Root MSE      =   2.067
------------------------------------------------------------------------------
     Std_Eff |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       slope |   .2623561   .0853636     3.07   0.005     .0865465    .4381658
        bias |   .5192526   .8089531     0.64   0.527    -1.146817    2.185323
------------------------------------------------------------------------------

Test of H0: no small-study effects          P = 0.527
```

```
. metatrim ES _SE         if Target_Beh==5, reffect funnel

Note: default data input format (theta, se_theta) assumed.

Meta-analysis

       |  Pooled      95% CI         Asymptotic      No. of
Method |     Est   Lower   Upper  z_value  p_value   studies
-------+-------------------------------------------------------
Fixed  |   0.310   0.270   0.350   15.268    0.000     27
Random |   0.328   0.235   0.420    6.970    0.000

Test for heterogeneity: Q= 108.574 on 26 degrees of freedom (p= 0.000)
Moment-based estimate of between studies variance =  0.039

Trimming estimator: Linear
Meta-analysis type: Random-effects model

iteration |  estimate    Tn    # to trim     diff
----------+-------------------------------------
    1     |    0.328    159         0         378
    2     |    0.328    159         0           0

Note: no trimming performed; data unchanged

Filled
Meta-analysis

       |  Pooled      95% CI         Asymptotic      No. of
Method |     Est   Lower   Upper  z_value  p_value   studies
-------+-------------------------------------------------------
Fixed  |   0.310   0.270   0.350   15.268    0.000     27
Random |   0.328   0.235   0.420    6.970    0.000
```

```
Test for heterogeneity: Q= 108.574 on 26 degrees of freedom (p= 0.000)

Moment-based estimate of between studies variance =  0.039
```



Meta-regression of BCT Clusters

```
. *Model Rev_Diet_U1a

.

. tabulate  Rev_Cluster1_SS                if Target_Beh==5


  Cluster1: |

     Social |

  Support - |

Controlling |

        for |

 comparator |

        use |      Freq.     Percent        Cum.

------------+-----------------------------------

          0 |          8       29.63       29.63
```

```
          1 |         19       70.37      100.00
------------+-----------------------------------
      Total |         27      100.00

.
. metareg ES  Rev_Cluster1_SS             if Target_Beh==5, wsse(_SE) knapphartung reml

Meta-regression                                         Number of obs  =      27
REML estimate of between-study variance                 tau2           =  .04698
% residual variation due to heterogeneity               I-squared_res  =  76.95%
Proportion of between-study variance explained          Adj R-squared  =  -4.85%
With Knapp-Hartung modification
------------------------------------------------------------------------------
             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
----------------+-------------------------------------------------------------
Rev_Cluster1_SS |  -.0095912    .115529    -0.08   0.934    -.2475277    .2283453
          _cons |   .3346993    .100047     3.35   0.003     .1286487      .54075
------------------------------------------------------------------------------

.
. *Model Rev_Diet_U1b
.
. tabulate  Rev_Cluster2_Reg              if Target_Beh==5

  Cluster2: |
 Regulation |
          - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         23       85.19       85.19
          1 |          4       14.81      100.00
```

```
------------+-----------------------------------
      Total |         27      100.00


.
. metareg ES  Rev_Cluster2_Reg    if Target_Beh==5, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =      27
REML estimate of between-study variance               tau2           =  .04633
% residual variation due to heterogeneity             I-squared_res  =  76.85%
Proportion of between-study variance explained        Adj R-squared  =  -3.39%
With Knapp-Hartung modification
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
Rev_Cluster2_Reg |   .1156394   .1502685     0.77   0.449    -.1938443    .4251231
           _cons |    .313001   .0532289     5.88   0.000     .2033741    .4226279
------------------------------------------------------------------------------


.
. *Model Rev_Diet_U1c
.
. tabulate  Rev_Cluster3_FM               if Target_Beh==5


  Cluster3: |
 Feedback & |
 Monitoring |
          - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         13       48.15       48.15
          1 |         14       51.85      100.00
```

```
------------+-----------------------------------
      Total |         27      100.00

.
. metareg ES  Rev_Cluster3_FM            if Target_Beh==5, wsse(_SE) knapphartung reml

Meta-regression                                         Number of obs  =      27
REML estimate of between-study variance                 tau2           =  .04693
% residual variation due to heterogeneity               I-squared_res  =  76.95%
Proportion of between-study variance explained          Adj R-squared  =  -4.73%
With Knapp-Hartung modification
------------------------------------------------------------------------------
             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
----------------+-------------------------------------------------------------
Rev_Cluster3_FM |  -.0259768   .1000209    -0.26   0.797    -.2319736    .1800201
          _cons |   .3403923   .0704445     4.83   0.000     .1953091    .4854755
------------------------------------------------------------------------------

.
. *Model Rev_Diet_U1d
.
. tabulate  Rev_Cluster4_Asc             if Target_Beh==5

  Cluster4: |
Association |
        s - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         26       96.30       96.30
          1 |          1        3.70      100.00
------------+-----------------------------------
```

```
      Total |         27      100.00

.
.
. *Model Rev_Diet_U1e
.
. tabulate  Rev_Cluster5_RS               if Target_Beh==5

  Cluster5: |
 Repetition |
        and |
Substitutio |
       ns - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         16       59.26       59.26
          1 |         11       40.74      100.00
------------+-----------------------------------
      Total |         27      100.00

.
. metareg ES  Rev_Cluster5_RS             if Target_Beh==5, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =      27
REML estimate of between-study variance               tau2           =  .04697
% residual variation due to heterogeneity             I-squared_res  =  75.91%
Proportion of between-study variance explained        Adj R-squared  =  -4.82%
With Knapp-Hartung modification
------------------------------------------------------------------------------
             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
----------------+-------------------------------------------------------------
```

```
Rev_Cluster5_RS |  -.0262425   .1013358    -0.26   0.798    -.2349474    .1824624
          _cons |   .3385452    .065723     5.15   0.000     .2031862    .4739042
------------------------------------------------------------------------------


.
. *Model Rev_Diet_U1f
.
. tabulate  Rev_Cluster6_Ant              if Target_Beh==5


  Cluster6: |
Antecedents |
          - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         17       62.96       62.96
          1 |         10       37.04      100.00
------------+-----------------------------------
      Total |         27      100.00


.
. metareg ES  Rev_Cluster6_Ant    if Target_Beh==5, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      27
REML estimate of between-study variance               tau2           =  .04727
% residual variation due to heterogeneity             I-squared_res  =  76.51%
Proportion of between-study variance explained        Adj R-squared  =  -5.49%
With Knapp-Hartung modification
------------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------------
Rev_Cluster6_Ant |  -.0136529   .1020045    -0.13   0.895    -.2237351    .1964293
```

```
           _cons |   .3330813   .0651919     5.11   0.000     .1988162    .4673465
------------------------------------------------------------------------------


.
. *Model Rev_Diet_U1g
.
. tabulate  Rev_Cluster7_SK               if Target_Beh==5


  Cluster7: |
    Shaping |
Knowledge - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         16       59.26       59.26
          1 |         11       40.74      100.00
------------+-----------------------------------
      Total |         27      100.00


.
. metareg ES  Rev_Cluster7_SK             if Target_Beh==5, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      27
REML estimate of between-study variance               tau2           =  .04386
% residual variation due to heterogeneity             I-squared_res  =  74.67%
Proportion of between-study variance explained        Adj R-squared  =   2.11%
With Knapp-Hartung modification
------------------------------------------------------------------------------
             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
----------------+-------------------------------------------------------------
Rev_Cluster7_SK |  -.1203326   .0990344    -1.22   0.236    -.3242979    .0836326
          _cons |   .3775808   .0638696     5.91   0.000     .2460389    .5091226
```

```
--------------------------------------------------------------------------------

.
. *Model Rev_Diet_U1h
.
. tabulate  Rev_Cluster8_SB               if Target_Beh==5


  Cluster8: |
Self-belief |
          - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         26       96.30       96.30
          1 |          1        3.70      100.00
------------+-----------------------------------
      Total |         27      100.00


.
.
. *Model Rev_Diet_U1i
.
. tabulate  Rev_Cluster9_SC               if Target_Beh==5


  Cluster9: |
  Scheduled |
Consequence |
        s - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
```

```
------------+-----------------------------------
          0 |         27      100.00      100.00
------------+-----------------------------------
      Total |         27      100.00


.
.
. *Model Rev_Diet_U1j
.
. tabulate  Rev_Cluster10_RT              if Target_Beh==5


 Cluster10: |
   Reward & |
   Threat - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         23       85.19       85.19
          1 |          4       14.81      100.00
------------+-----------------------------------
      Total |         27      100.00


.
. metareg ES  Rev_Cluster10_RT    if Target_Beh==5, wsse(_SE) knapphartung reml


Meta-regression                                     Number of obs  =      27
REML estimate of between-study variance             tau2           =  .04715
% residual variation due to heterogeneity           I-squared_res  =  76.65%
Proportion of between-study variance explained      Adj R-squared  =  -5.22%
With Knapp-Hartung modification
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
```

```
-----------------+----------------------------------------------------------------
Rev_Cluster10_RT |   .0097035   .1441806     0.07   0.947    -.2872419    .3066489
           _cons |   .3261427   .0540319     6.04   0.000     .2148619    .4374234
------------------------------------------------------------------------------


.

.

. *Model Rev_Diet_U1k

.

. tabulate  Rev_Cluster11_GP              if Target_Beh==5


 Cluster11: |
    Goals & |
 Planning - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |          1        3.70        3.70
          1 |         26       96.30      100.00
------------+-----------------------------------
      Total |         27      100.00


.

.

. *Model Rev_Diet_U1l

.

. tabulate  Rev_Cluster12_CO              if Target_Beh==5


 Cluster12: |
 Comparison |
of Outcomes |
          - |
```

```
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         22       81.48       81.48
          1 |          5       18.52      100.00
------------+-----------------------------------
      Total |         27      100.00


.
. metareg ES  Rev_Cluster12_CO    if Target_Beh==5, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      27
REML estimate of between-study variance               tau2           =  .03815
% residual variation due to heterogeneity             I-squared_res  =  76.92%
Proportion of between-study variance explained        Adj R-squared  =  14.85%
With Knapp-Hartung modification
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
Rev_Cluster12_CO |   .2526857    .121803     2.07   0.048     .0018277    .5035436
           _cons |   .2828945   .0512368     5.52   0.000     .1773703    .3884188
------------------------------------------------------------------------------


.
. *Model Rev_Diet_U1m
.
. tabulate  Rev_Cluster13_Id              if Target_Beh==5


 Cluster13: |
 Identity - |
Controlling |
        for |
```

```
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         25       92.59       92.59
          1 |          2        7.41      100.00
------------+-----------------------------------
      Total |         27      100.00


.
.
. *Model Rev_Diet_U1n
.
. tabulate  Rev_Cluster14_NC              if Target_Beh==5


 Cluster14: |
    Natural |
Consequence |
        s - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         23       85.19       85.19
          1 |          4       14.81      100.00
------------+-----------------------------------
      Total |         27      100.00


.
. metareg ES  Rev_Cluster14_NC    if Target_Beh==5, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      27
REML estimate of between-study variance               tau2           =  .04637
% residual variation due to heterogeneity             I-squared_res  =  76.89%
```

```
Proportion of between-study variance explained        Adj R-squared  =  -3.49%

With Knapp-Hartung modification

------------------------------------------------------------------------------

              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

-----------------+------------------------------------------------------------

Rev_Cluster14_NC |  -.0816579   .1438388    -0.57   0.575    -.3778994    .2145835

           _cons |   .3388797   .0536709     6.31   0.000     .2283424    .4494169

------------------------------------------------------------------------------


.

. *Model Rev_Diet_U1o

.

. tabulate  Rev_Cluster15_CB              if Target_Beh==5


 Cluster15: |

 Comparison |

         of |

Behaviour - |

Controlling |

        for |

 comparator |

        use |      Freq.     Percent        Cum.

------------+-----------------------------------

          0 |         23       85.19       85.19

          1 |          4       14.81      100.00

------------+-----------------------------------

      Total |         27      100.00


.

. metareg ES  Rev_Cluster15_CB    if Target_Beh==5, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      27

REML estimate of between-study variance               tau2           =  .04729

% residual variation due to heterogeneity             I-squared_res  =  76.89%
```

```
Proportion of between-study variance explained        Adj R-squared  =  -5.55%

With Knapp-Hartung modification

------------------------------------------------------------------------------

              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

-----------------+------------------------------------------------------------

Rev_Cluster15_CB |   -.034548   .1392004    -0.25   0.806    -.3212366    .2521406

           _cons |   .3328008   .0545021     6.11   0.000     .2205516    .4450499

------------------------------------------------------------------------------



.

. *Model Rev_Diet_U1p

.

. tabulate  Rev_Cluster16_CL              if Target_Beh==5


 Cluster16: |

     Covert |

 Learning - |

Controlling |

        for |

 comparator |

        use |      Freq.     Percent        Cum.

------------+-----------------------------------

          0 |         27      100.00      100.00

------------+-----------------------------------

      Total |         27      100.00
```

Meta-regression of Intervention function

```
. *Model Rev_Diet_U2a

.

. tabulate  Rev_iif1                              if Target_Beh==5


   Rev_iif1 |      Freq.     Percent        Cum.

------------+-----------------------------------

          0 |         10       37.04       37.04

          1 |         17       62.96      100.00
```

```
------------+-----------------------------------
      Total |         27      100.00


.
. metareg ES  Rev_iif1                    if Target_Beh==5, wsse(_SE) knapphartung reml


Meta-regression                                         Number of obs  =      27
REML estimate of between-study variance                 tau2           =  .04616
% residual variation due to heterogeneity               I-squared_res  =  76.07%
Proportion of between-study variance explained          Adj R-squared  =  -3.02%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif1 |  -.0679579   .1031426    -0.66   0.516    -.2803841    .1444682
       _cons |   .3705295   .0820616     4.52   0.000     .2015205    .5395385
------------------------------------------------------------------------------


.
. *Model Rev_Diet_U2b
.
. tabulate  Rev_iif2                              if Target_Beh==5


   Rev_iif2 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         21       77.78       77.78
          1 |          6       22.22      100.00
------------+-----------------------------------
      Total |         27      100.00


.
. metareg ES  Rev_iif2                    if Target_Beh==5, wsse(_SE) knapphartung reml


Meta-regression                                         Number of obs  =      27
```

```
REML estimate of between-study variance               tau2           =  .04696
% residual variation due to heterogeneity             I-squared_res  =  76.52%
Proportion of between-study variance explained        Adj R-squared  =  -4.80%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif2 |   .0834717   .1194356     0.70   0.491    -.1625104    .3294539
       _cons |   .3085673   .0568913     5.42   0.000     .1913974    .4257372
------------------------------------------------------------------------------


.
. *Model Rev_Diet_U2c
.
. tabulate  Rev_iif3                              if Target_Beh==5


   Rev_iif3 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         23       85.19       85.19
          1 |          4       14.81      100.00
------------+-----------------------------------
      Total |         27      100.00


.
. metareg ES  Rev_iif3                    if Target_Beh==5, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      27
REML estimate of between-study variance               tau2           =  .04715
% residual variation due to heterogeneity             I-squared_res  =  76.65%
Proportion of between-study variance explained        Adj R-squared  =  -5.22%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
```

```
    Rev_iif3 |   .0097035   .1441806     0.07   0.947    -.2872419    .3066489
       _cons |   .3261427   .0540319     6.04   0.000     .2148619    .4374234
------------------------------------------------------------------------------


.
.
. *Model Rev_Diet_U2d
.
. tabulate  Rev_iif4                              if Target_Beh==5


   Rev_iif4 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         27      100.00      100.00
------------+-----------------------------------
      Total |         27      100.00


.
.
. *Model Rev_Diet_U2e
.
. tabulate  Rev_iif5                              if Target_Beh==5


   Rev_iif5 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         12       44.44       44.44
          1 |         15       55.56      100.00
------------+-----------------------------------
      Total |         27      100.00


.
. metareg ES Rev_iif5                             if Target_Beh==5, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      27
REML estimate of between-study variance               tau2           =  .04106
```

```
% residual variation due to heterogeneity             I-squared_res  =  73.44%
Proportion of between-study variance explained        Adj R-squared  =   8.36%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif5 |  -.1543646    .095977    -1.61   0.120    -.3520331    .0433038
       _cons |   .4133886   .0715652     5.78   0.000     .2659972    .5607799
------------------------------------------------------------------------------


.
. *Model Rev_Diet_U2f
.
. tabulate  Rev_iif6                              if Target_Beh==5

   Rev_iif6 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         27      100.00      100.00
------------+-----------------------------------
      Total |         27      100.00


.
.
. *Model Rev_Diet_U2g
.
. tabulate Rev_iif7                               if Target_Beh==5

   Rev_iif7 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         21       77.78       77.78
          1 |          6       22.22      100.00
------------+-----------------------------------
      Total |         27      100.00
```

```
.
. metareg ES Rev_iif7                              if Target_Beh==5, wsse(_SE) knapphartung reml

Meta-regression                                        Number of obs  =      27
REML estimate of between-study variance                tau2           =  .04741
% residual variation due to heterogeneity              I-squared_res  =  76.75%
Proportion of between-study variance explained         Adj R-squared  =  -5.80%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif7 |   .0250175   .1139993     0.22   0.828    -.2097685    .2598035
       _cons |   .3209222   .0584718     5.49   0.000     .2004972    .4413472
------------------------------------------------------------------------------

.
.
. *Model Rev_Diet_U2h
.
. tabulate  Rev_iif8                               if Target_Beh==5

   Rev_iif8 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         26       96.30       96.30
          1 |          1        3.70      100.00
------------+-----------------------------------
      Total |         27      100.00

.
.
. *Model Rev_Diet_U2i
.
. tabulate  Rev_iif9                               if Target_Beh==5
```

```
   Rev_iif9 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |          2        7.41        7.41
          1 |         25       92.59      100.00
------------+-----------------------------------
      Total |         27      100.00


.
```

Meta-regression of Theory-basedness

```
.
. *Model Diet_U3
.
. tabulate itb                            if Target_Beh==5


        ITB |      Freq.     Percent        Cum.
------------+-----------------------------------
         No |         15       55.56       55.56
        Yes |         12       44.44      100.00
------------+-----------------------------------
      Total |         27      100.00


.
. metareg ES  itb                         if Target_Beh==5, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      27
REML estimate of between-study variance               tau2           =   .0471
% residual variation due to heterogeneity             I-squared_res  =  76.92%
Proportion of between-study variance explained        Adj R-squared  =  -5.12%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         itb |  -.0193035   .1012018    -0.19   0.850    -.2277324    .1891254
       _cons |   .3357728   .0662286     5.07   0.000     .1993724    .4721732
------------------------------------------------------------------------------
```

PHYSICAL ACTIVITY

Meta-analysis

```
. metan ES _SE if Target_Beh==4, label(namevar=StudyID) sortby(StudyID) random effect(SMD)
astext(50) textsize(200)  force xlabe

> l(-1, -0.5, 0, 0.5, 1) favours (Favours Control # Favours Intervention)
```

Study	ES	[95% Conf.	Interval]	% Weight
Armit 2008_ES	0.072	-0.538	0.682	0.86
Armit 2008_ES+P	0.480	-0.112	1.073	0.89
Burke 2008	0.262	0.009	0.516	1.73
Clark 2004	0.333	-0.062	0.728	1.33
Debussche 2012	0.095	-0.126	0.315	1.83
Di Loreto 2003	1.100	0.872	1.329	1.80
Eakin 2007	0.125	-0.152	0.403	1.66
Eakin 2010	-0.059	-0.248	0.131	1.91
Elley 2003	0.265	0.076	0.453	1.91
Eriksson 2009	0.354	-0.010	0.718	1.41
Giannuzzi 2008	0.178	0.109	0.247	2.16
Grandes 2009	0.032	-0.082	0.147	2.08
Groeneveld 2011	0.032	-0.157	0.221	1.91
Guelinckx 2010	0.274	-0.153	0.701	1.25
Hardcastle 2008	0.227	0.007	0.447	1.83
Harting 2006	0.007	-0.114	0.129	2.07
Hertogh 2010	0.010	-0.320	0.340	1.51
Horden 2009	0.158	-0.138	0.454	1.61
Hyman 2007_Seq	0.031	-0.323	0.385	1.44
Hyman 2007_Sim	0.019	-0.333	0.370	1.45
Keogh 2011	0.621	0.256	0.986	1.41
Kirk 2009_PA-P	0.264	-0.294	0.822	0.95
Kirk 2009_PA-W	0.417	-0.136	0.971	0.96
Koelewijin-van Loon	0.030	-0.220	0.280	1.74
Kolt 2007	0.457	0.148	0.766	1.57
Kuller 2012	0.133	-0.056	0.321	1.91
Lawton 2008	0.156	0.019	0.292	2.04
Lindahl 2009	0.503	0.137	0.868	1.41
Lorig 2006	0.057	-0.084	0.198	2.03
Lorig 2010_SM	0.041	-0.204	0.287	1.75
Lorig 2010_SM+MR	-0.001	-0.252	0.251	1.74
Luoto 2011	-0.190	-0.403	0.024	1.85
Marcus 2007_PB	0.523	0.135	0.910	1.35
Marcus 2007_TB	0.153	-0.230	0.536	1.36
McMurdo 2010_BCI	0.401	-0.015	0.816	1.28
McMurdo 2010_BCI+P	0.223	-0.189	0.636	1.28
Moore 2006	0.072	-0.176	0.320	1.75
Morey 2009	0.137	-0.018	0.292	2.00
Muniz 2010	0.140	0.009	0.271	2.05
Nies 2003	0.053	-0.276	0.381	1.51
Nijamkin 2012	0.488	0.143	0.833	1.47
Patrick 2011	0.234	0.011	0.458	1.82
Penn 2009	-0.047	-0.492	0.398	1.20
Pinto 2011	0.442	-0.065	0.949	1.06
Prestwich 2009_II	0.067	-0.652	0.786	0.69
Prestwich 2009_II+SM	0.441	-0.285	1.166	0.69
Prestwich 2009_SMS	0.160	-0.554	0.874	0.70
Reid 2011	0.151	-0.180	0.481	1.51
Smeulders 2009	0.102	-0.122	0.326	1.82

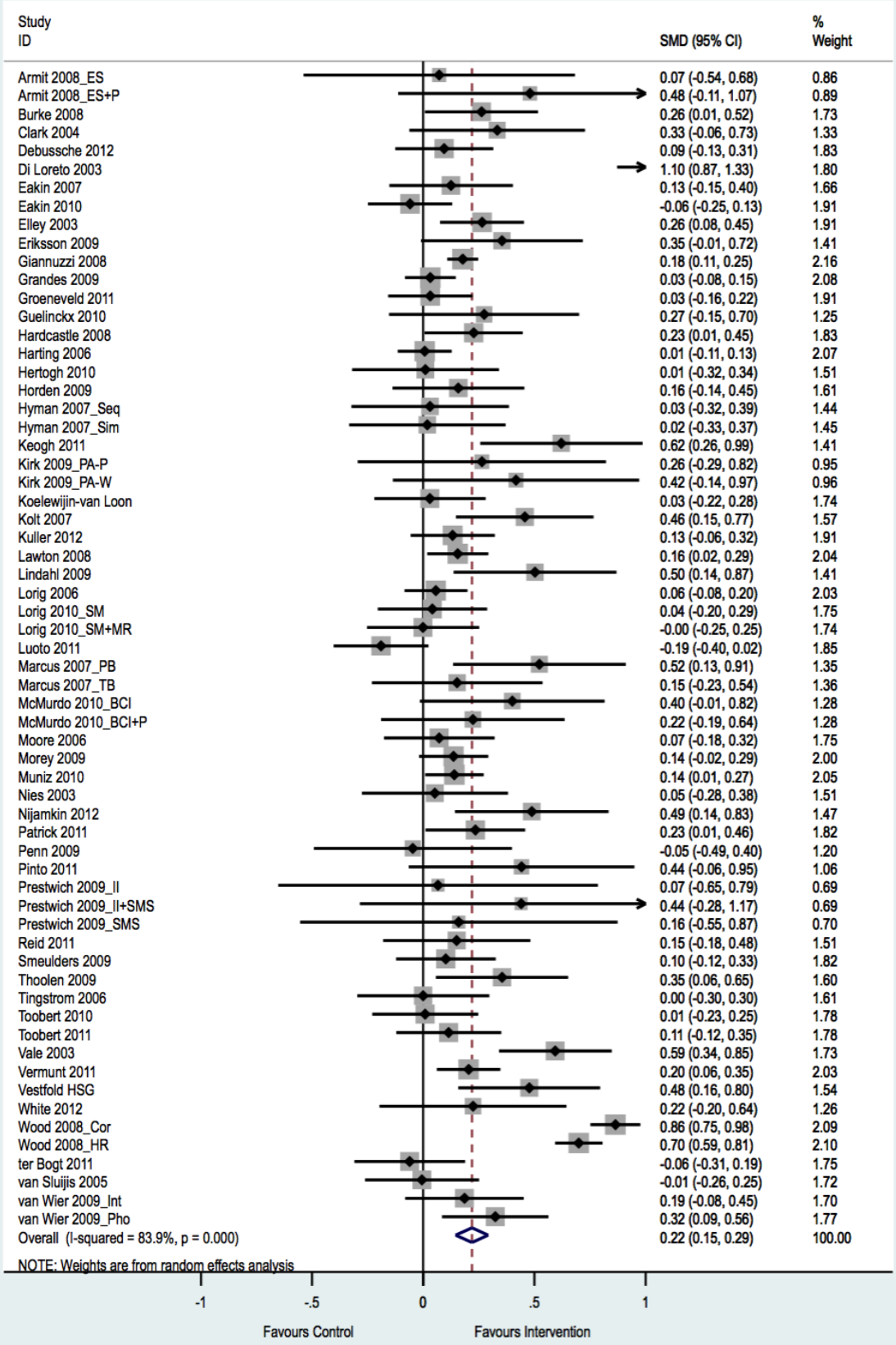
Thoolen 2009	0.355	0.058	0.652	1.60
Tingstrom 2006	0.000	-0.297	0.297	1.61
Toobert 2010	0.009	-0.229	0.247	1.78
Toobert 2011	0.115	-0.121	0.351	1.78
Vale 2003	0.594	0.341	0.847	1.73
Vermunt 2011	0.204	0.062	0.346	2.03
Vestfold HSG	0.477	0.158	0.796	1.54
White 2012	0.224	-0.196	0.644	1.26
Wood 2008_Cor	0.864	0.752	0.976	2.09
Wood 2008_HR	0.700	0.594	0.807	2.10
ter Bogt 2011	-0.061	-0.310	0.188	1.75
van Sluijis 2005	-0.006	-0.262	0.251	1.72
van Wier 2009_Int	0.186	-0.081	0.452	1.70
van Wier 2009_Pho	0.324	0.085	0.563	1.77
D+L pooled ES	0.219	0.147	0.291	100.00

Heterogeneity chi-squared = 384.40 (d.f. = 62) p = 0.000

I-squared (variation in ES attributable to heterogeneity) = 83.9%

Estimate of between-study variance Tau-squared = 0.0621

Test of ES=0 : z= 5.92 p = 0.000


Study ID
SMD (95% CI)
% Weight
Armit 2008_ES 0.07 (-0.54, 0.68) 0.86
Armit 2008_ES+P 0.48 (-0.11, 1.07) 0.89
Burke 2008 0.26 (0.01, 0.52) 1.73
Clark 2004 0.33 (-0.06, 0.73) 1.33
Debussche 2012 0.09 (-0.13, 0.31) 1.83
Di Loreto 2003 1.10 (0.87, 1.33) 1.80
Eakin 2007 0.13 (-0.15, 0.40) 1.66
Eakin 2010 -0.06 (-0.25, 0.13) 1.91
Elley 2003 0.26 (0.08, 0.45) 1.91
Eriksson 2009 0.35 (-0.01, 0.72) 1.41
Giannuzzi 2008 0.18 (0.11, 0.25) 2.16
Grandes 2009 0.03 (-0.08, 0.15) 2.08
Groeneveld 2011 0.03 (-0.16, 0.22) 1.91
Guelinckx 2010 0.27 (-0.15, 0.70) 1.25
Hardcastle 2008 0.23 (0.01, 0.45) 1.83
Harting 2006 0.01 (-0.11, 0.13) 2.07
Hertogh 2010 0.01 (-0.32, 0.34) 1.51
Horden 2009 0.16 (-0.14, 0.45) 1.61
Hyman 2007_Seq 0.03 (-0.32, 0.39) 1.44
Hyman 2007_Sim 0.02 (-0.33, 0.37) 1.45
Keogh 2011 0.62 (0.26, 0.99) 1.41
Kirk 2009_PA-P 0.26 (-0.29, 0.82) 0.95
Kirk 2009_PA-W 0.42 (-0.14, 0.97) 0.96
Koelewijn-van Loon 0.03 (-0.22, 0.28) 1.74
Kolt 2007 0.46 (0.15, 0.77) 1.57
Kuller 2012 0.13 (-0.06, 0.32) 1.91
Lawton 2008 0.16 (0.02, 0.29) 2.04
Lindahl 2009 0.50 (0.14, 0.87) 1.41
Lorig 2006 0.06 (-0.08, 0.20) 2.03
Lorig 2010_SM 0.04 (-0.20, 0.29) 1.75
Lorig 2010_SM+MR -0.00 (-0.25, 0.25) 1.74
Luoto 2011 -0.19 (-0.40, 0.02) 1.85
Marcus 2007_PB 0.52 (0.13, 0.91) 1.35
Marcus 2007_TB 0.15 (-0.23, 0.54) 1.36
McMurdo 2010_BCI 0.40 (-0.01, 0.82) 1.28
McMurdo 2010_BCI+P 0.22 (-0.19, 0.64) 1.28
Moore 2006 0.07 (-0.18, 0.32) 1.75
Morey 2009 0.14 (-0.02, 0.29) 2.00
Muniz 2010 0.14 (0.01, 0.27) 2.05
Nies 2003 0.05 (-0.28, 0.38) 1.51
Nijamkin 2012 0.49 (0.14, 0.83) 1.47
Patrick 2011 0.23 (0.01, 0.46) 1.82
Penn 2009 -0.05 (-0.49, 0.40) 1.20
Pinto 2011 0.44 (-0.06, 0.95) 1.06
Prestwich 2009_II 0.07 (-0.65, 0.79) 0.69
Prestwich 2009_II+SMS 0.44 (-0.28, 1.17) 0.69
Prestwich 2009_SMS 0.16 (-0.55, 0.87) 0.70
Reid 2011 0.15 (-0.18, 0.48) 1.51
Smeulders 2009 0.10 (-0.12, 0.33) 1.82
Thoolen 2009 0.35 (0.06, 0.65) 1.60
Tingstrom 2006 0.00 (-0.30, 0.30) 1.61
Toobert 2010 0.01 (-0.23, 0.25) 1.78
Toobert 2011 0.11 (-0.12, 0.35) 1.78
Vale 2003 0.59 (0.34, 0.85) 1.73
Vermunt 2011 0.20 (0.06, 0.35) 2.03
Vestfold HSG 0.48 (0.16, 0.80) 1.54
White 2012 0.22 (-0.20, 0.64) 1.26
Wood 2008_Cor 0.86 (0.75, 0.98) 2.09
Wood 2008_HR 0.70 (0.59, 0.81) 2.10
ter Bogt 2011 -0.06 (-0.31, 0.19) 1.75
van Sluijis 2005 -0.01 (-0.26, 0.25) 1.72
van Wier 2009_Int 0.19 (-0.08, 0.45) 1.70
van Wier 2009_Pho 0.32 (0.09, 0.56) 1.77
Overall (I-squared = 83.9%, p = 0.000) 0.22 (0.15, 0.29) 100.00
NOTE: Weights are from random effects analysis
-1
-.5
0
.5
1
Favours Control
Favours Intervention

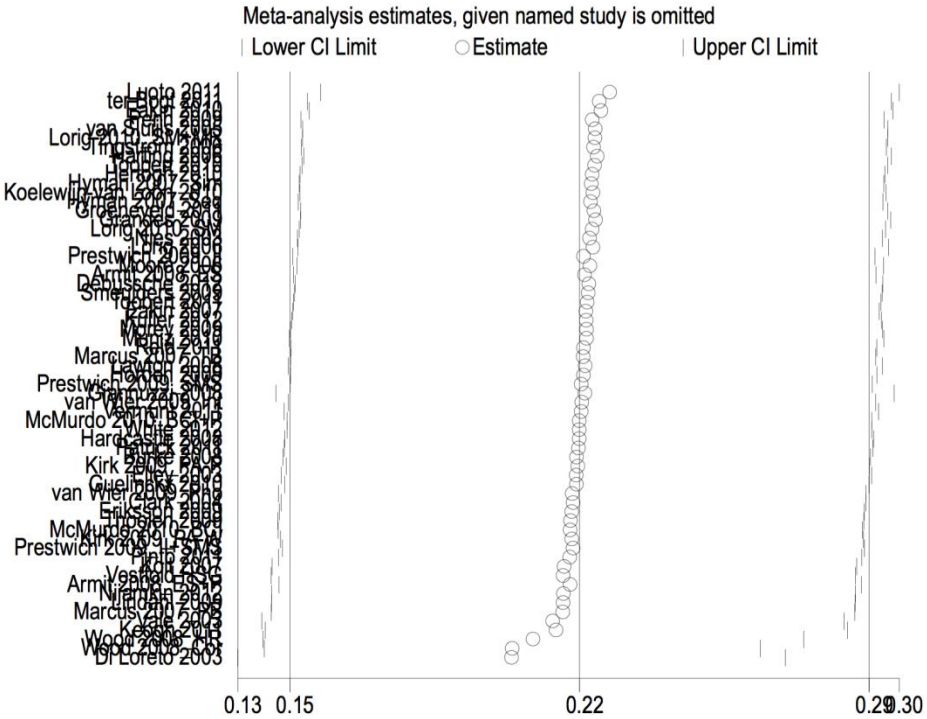
.

Outliers

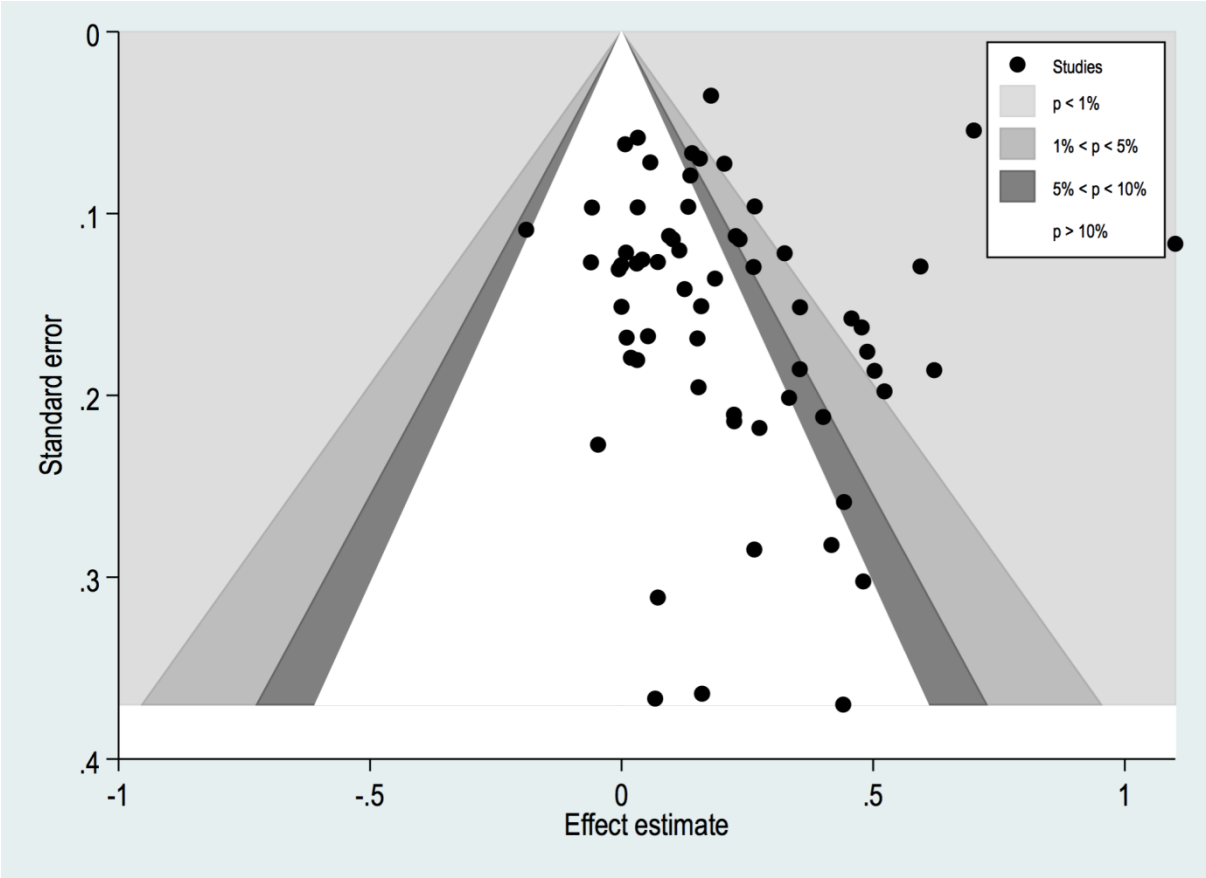
```
. metaninf ES _SE if Target_Beh==4, label(namevar=StudyID) random

------------------------------------------------------------------------------
 Study omitted      |   Estimate       [95%  Conf.  Interval]
-------------------+----------------------------------------------------------
 Luoto 2011         |   .22652543      .15419105    .2988598
 ter Bogt 2011      |   .22389522      .15085915    .2969313
 Eakin 2010         |   .22432551      .15131393    .29733709
 Penn 2009          |   .22216605      .14923616    .29509595
 van Sluijis 2005   |   .22288114      .14969513    .29606715
 Lorig 2010_SM+MR   |   .22282466      .14962038    .29602894
 Tingstrom 2006     |   .2225177       .1493751     .29566029
 Harting 2006       |   .22343478      .14992999    .29693955
 Toobert 2010       |   .22274548      .14949501    .29599595
 Hertogh 2010       |   .22214544      .14903191    .29525897
 Hyman 2007_Sim     |   .22188888      .14879386    .29498392
 Koelewijn-van Loon 2010|.2222984      .1490192     .29557762
 Hyman 2007_Seq     |   .22169493      .14858957    .29480028
 Groeneveld 2011    |   .22260277      .14916505    .29604048
 Grandes 2009       |   .22296213      .14914261    .29678166
 Lorig 2010_SM      |   .22212772      .14881541    .29544005
 Nies 2003          |   .22150975      .14834164    .29467788
 Lorig 2006         |   .22234692      .14854132    .29615253
 Prestwich 2009_II  |   .22000557      .14721692    .29279423
 Moore 2006         |   .22157328      .14820839    .29493818
 Armit 2008_ES      |   .22021508      .14735496    .2930752
 Debussche 2012     |   .22129062      .14779328    .29478794
 Smeulders 2009     |   .22114331      .14764634    .29464027
 Toobert 2011       |   .22086428      .14739193    .29433665
 Eakin 2007         |   .22054791      .14719507    .29390076
 Kuller 2012        |   .22068152      .14695543    .29440761
 Morey 2009         |   .22070239      .14669028    .29471451
 Muniz 2010         |   .22071084      .14636381    .29505786
 Reid 2011          |   .22000384      .14676224    .29324546
 Marcus 2007_TB     |   .21986713      .14672451    .29300973
 Lawton 2008        |   .22038275      .14608242    .2946831
 Horden 2009        |   .21995822      .14663096    .29328546
 Prestwich 2009_SMS|   .21935962      .14655384    .2921654
 Giannuzzi 2008     |   .22032398      .14300717    .2976408
 van Wier 2009_Int  |   .21955217      .14612426    .2929801
 Vermunt 2011       |   .21937704      .1450741     .29367998
 McMurdo 2010_BCI+P|   .21889676      .14578974    .29200381
 White 2012         |   .21889107      .14579503    .29198709
 Hardcastle 2008    |   .21884744      .14522195    .29247293
 Patrick 2011       |   .2187072       .14509879    .2923156
 Burke 2008         |   .21821706      .1447407     .29169342
 Kirk 2009_PA-P     |   .21851373      .14558646    .29144099
 Elley 2003         |   .21812813      .14431873    .2919375
 Guelinckx 2010     |   .21825752      .1451758     .29133922
 van Wier 2009_Pho  |   .21708232      .14359403    .29057062
 Clark 2004         |   .21741574      .14430159    .29052988
 Eriksson 2009      |   .2170129       .14385939    .29016641
 Thoolen 2009       |   .21674815      .14346267    .29003361
 McMurdo 2010_BCI   |   .21659417      .14354707    .28964126
 Kirk 2009_PA-W     |   .21701129      .14411603    .28990653
 Prestwich 2009_II+SMS|.2174063        .14463215    .29018044
```

Pinto 2011	.21655051	.14362681	.28947422
Kolt 2007	.21514548	.14201337	.2882776
Vestfold HSG	.21489345	.1418058	.28798109
Armit 2008_ES+P	.21658927	.14375129	.28942725
Nijamkin 2012	.21492371	.14188106	.28796634
Lindahl 2009	.21487549	.1418725	.28787848
Marcus 2007_PB	.21477841	.14181978	.28773704
Vale 2003	.21227616	.13949084	.28506151
Keogh 2011	.21315396	.14034837	.28595954
Wood 2008_HR	.2073735	.13974842	.27499858
Wood 2008_Cor	.20213185	.14009295	.26417077
Di Loreto 2003	.20194164	.13345826	.27042502
Combined	.21892636	.14650118	.29135154

No trials had point estimate outside the combined CI.



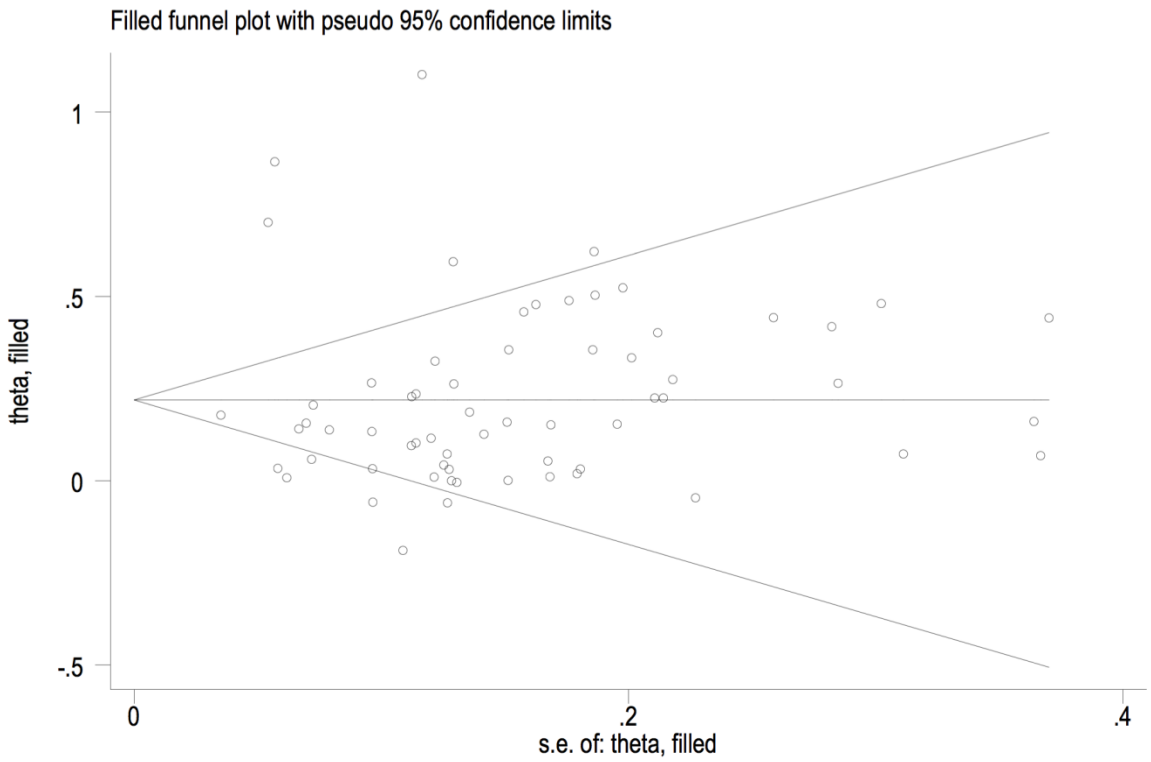
Publication bias




```
. metabias ES _SE          if Target_Beh==4, egger

Note: data input format theta se_theta assumed.

Egger's test for small-study effects:
Regress standard normal deviate of intervention
effect estimate against its standard error

Number of studies =  63                                  Root MSE      =   2.506
------------------------------------------------------------------------------
     Std_Eff |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       slope |   .2573077   .0693963     3.71   0.000     .1185412    .3960742
        bias |  -.2862308   .6449148    -0.44   0.659    -1.575818    1.003356
------------------------------------------------------------------------------

Test of H0: no small-study effects          P = 0.659
```

```
. metatrim ES _SE         if Target_Beh==4, reffect funnel

Note: default data input format (theta, se_theta) assumed.

Meta-analysis

       |  Pooled      95% CI         Asymptotic      No. of
Method |     Est   Lower   Upper  z_value  p_value   studies
-------+-------------------------------------------------------
Fixed  |   0.230   0.204   0.257   16.999    0.000     63
Random |   0.219   0.147   0.291    5.925    0.000

Test for heterogeneity: Q= 384.399 on 62 degrees of freedom (p= 0.000)
Moment-based estimate of between studies variance =  0.062

Trimming estimator: Linear
Meta-analysis type: Random-effects model

iteration |  estimate    Tn    # to trim     diff
----------+-------------------------------------
    1     |    0.219    932         0        2016
    2     |    0.219    932         0           0

Note: no trimming performed; data unchanged

Filled
Meta-analysis

       |  Pooled      95% CI         Asymptotic      No. of
Method |     Est   Lower   Upper  z_value  p_value   studies
-------+-------------------------------------------------------
Fixed  |   0.230   0.204   0.257   16.999    0.000     63
Random |   0.219   0.147   0.291    5.925    0.000
```

```
Test for heterogeneity: Q= 384.399 on 62 degrees of freedom (p= 0.000)

Moment-based estimate of between studies variance =  0.062
```



Meta-regression of BCT Clusters

```
. *Model Rev_PA_U1a

.

. tabulate  Rev_Cluster1_SS               if Target_Beh==4


  Cluster1: |

     Social |

  Support - |

Controlling |

        for |

 comparator |

        use |      Freq.     Percent        Cum.

------------+-----------------------------------

          0 |         19       30.16       30.16

          1 |         44       69.84      100.00

------------+-----------------------------------

      Total |         63      100.00


.

. metareg ES  Rev_Cluster1_SS             if Target_Beh==4, wsse(_SE) knapphartung reml


Meta-regression                                         Number of obs  =      63

REML estimate of between-study variance                 tau2           =  .04628

% residual variation due to heterogeneity               I-squared_res  =  83.97%

Proportion of between-study variance explained          Adj R-squared  =   1.61%

With Knapp-Hartung modification

------------------------------------------------------------------------------

             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

----------------+-------------------------------------------------------------

Rev_Cluster1_SS |  -.0985576   .0750669    -1.31   0.194    -.2486631    .0515479

          _cons |   .2903151   .0643509     4.51   0.000     .1616376    .4189927

------------------------------------------------------------------------------


.

. *Model Rev_PA_U1b
```

```
.
. tabulate  Rev_Cluster2_Reg              if Target_Beh==4


  Cluster2: |
 Regulation |
          - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         50       79.37       79.37
          1 |         13       20.63      100.00
------------+-----------------------------------
      Total |         63      100.00


.
. metareg ES  Rev_Cluster2_Reg    if Target_Beh==4, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      63
REML estimate of between-study variance               tau2           =  .04686
% residual variation due to heterogeneity             I-squared_res  =  83.27%
Proportion of between-study variance explained        Adj R-squared  =   0.38%
With Knapp-Hartung modification
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
Rev_Cluster2_Reg |  -.0712297   .0816285    -0.87   0.386    -.2344559    .0919965
           _cons |   .2329335   .0374624     6.22   0.000     .1580229    .3078441
------------------------------------------------------------------------------


.
. *Model Rev_PA_U1c
.
```

```
. tabulate  Rev_Cluster3_FM              if Target_Beh==4


  Cluster3: |
 Feedback & |
 Monitoring |
          - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         30       47.62       47.62
          1 |         33       52.38      100.00
------------+-----------------------------------
      Total |         63      100.00


.
. metareg ES  Rev_Cluster3_FM            if Target_Beh==4, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      63
REML estimate of between-study variance               tau2           =  .04563
% residual variation due to heterogeneity             I-squared_res  =  82.85%
Proportion of between-study variance explained        Adj R-squared  =   3.00%
With Knapp-Hartung modification
------------------------------------------------------------------------------
             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
----------------+-------------------------------------------------------------
Rev_Cluster3_FM |   -.095104   .0659682    -1.44   0.155    -.2270156    .0368075
          _cons |   .2669652   .0474123     5.63   0.000     .1721585     .361772
------------------------------------------------------------------------------


.
. *Model Rev_PA_U1d
.
```

```
. tabulate  Rev_Cluster4_Asc              if Target_Beh==4


  Cluster4: |
Association |
        s - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         58       92.06       92.06
          1 |          5        7.94      100.00
------------+-----------------------------------
      Total |         63      100.00


.
. metareg ES  Rev_Cluster4_Asc    if Target_Beh==4, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      63
REML estimate of between-study variance               tau2           =  .04802
% residual variation due to heterogeneity             I-squared_res  =  84.09%
Proportion of between-study variance explained        Adj R-squared  =  -2.10%
With Knapp-Hartung modification
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
Rev_Cluster4_Asc |   .0257395   .1316966     0.20   0.846    -.2376042    .2890831
           _cons |   .2162164   .0348198     6.21   0.000     .1465898    .2858429
------------------------------------------------------------------------------


.
. *Model Rev_PA_U1e
.
. tabulate  Rev_Cluster5_RS               if Target_Beh==4
```

```
  Cluster5: |
 Repetition |
        and |
Substitutio |
       ns - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         44       69.84       69.84
          1 |         19       30.16      100.00
------------+-----------------------------------
      Total |         63      100.00

.
. metareg ES  Rev_Cluster5_RS             if Target_Beh==4, wsse(_SE) knapphartung reml

Meta-regression                                         Number of obs  =      63
REML estimate of between-study variance                 tau2           =  .03801
% residual variation due to heterogeneity               I-squared_res  =  78.52%
Proportion of between-study variance explained          Adj R-squared  =  19.19%
With Knapp-Hartung modification
------------------------------------------------------------------------------
             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
----------------+-------------------------------------------------------------
Rev_Cluster5_RS |   .1919188   .0674677     2.84   0.006     .0570088    .3268288
          _cons |   .1596788   .0369474     4.32   0.000     .0857978    .2335597
------------------------------------------------------------------------------

.
. *Model Rev_PA_U1f
.
```

```
. tabulate  Rev_Cluster6_Ant              if Target_Beh==4


  Cluster6: |
Antecedents |
          - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         42       66.67       66.67
          1 |         21       33.33      100.00
------------+-----------------------------------
      Total |         63      100.00


.
. metareg ES  Rev_Cluster6_Ant    if Target_Beh==4, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      63
REML estimate of between-study variance               tau2           =  .04635
% residual variation due to heterogeneity             I-squared_res  =  82.46%
Proportion of between-study variance explained        Adj R-squared  =   1.46%
With Knapp-Hartung modification
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
Rev_Cluster6_Ant |   .0783095   .0704545     1.11   0.271    -.0625731     .219192
           _cons |   .1919767   .0405311     4.74   0.000     .1109297    .2730237
------------------------------------------------------------------------------


.
. *Model Rev_PA_U1g
.
. tabulate  Rev_Cluster7_SK               if Target_Beh==4
```

```
  Cluster7: |
    Shaping |
Knowledge - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         41       65.08       65.08
          1 |         22       34.92      100.00
------------+-----------------------------------
      Total |         63      100.00

.
. metareg ES  Rev_Cluster7_SK             if Target_Beh==4, wsse(_SE) knapphartung reml

Meta-regression                                         Number of obs  =      63
REML estimate of between-study variance                 tau2           =  .04776
% residual variation due to heterogeneity               I-squared_res  =  83.56%
Proportion of between-study variance explained          Adj R-squared  =  -1.53%
With Knapp-Hartung modification
------------------------------------------------------------------------------
             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
----------------+-------------------------------------------------------------
Rev_Cluster7_SK |  -.0347416   .0701757    -0.50   0.622    -.1750667    .1055834
          _cons |   .2302219   .0416288     5.53   0.000     .1469799    .3134638
------------------------------------------------------------------------------

.
. *Model Rev_PA_U1h
.
. tabulate  Rev_Cluster8_SB               if Target_Beh==4
```

```
  Cluster8: |
Self-belief |
          - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         61       96.83       96.83
          1 |          2        3.17      100.00
------------+-----------------------------------
      Total |         63      100.00


.
.
. *Model Rev_PA_U1i
.
. tabulate  Rev_Cluster9_SC               if Target_Beh==4


  Cluster9: |
  Scheduled |
Consequence |
        s - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         63      100.00      100.00
------------+-----------------------------------
      Total |         63      100.00


.
.
```

```
. *Model Rev_PA_U1j

.

. tabulate  Rev_Cluster10_RT              if Target_Beh==4


 Cluster10: |
   Reward & |
   Threat - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         59       93.65       93.65
          1 |          4        6.35      100.00
------------+-----------------------------------
      Total |         63      100.00


.

. metareg ES  Rev_Cluster10_RT    if Target_Beh==4, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      63
REML estimate of between-study variance               tau2           =  .04793
% residual variation due to heterogeneity             I-squared_res  =  84.00%
Proportion of between-study variance explained        Adj R-squared  =  -1.91%
With Knapp-Hartung modification
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
Rev_Cluster10_RT |   -.044067   .1269876    -0.35   0.730    -.2979945    .2098605
           _cons |    .221338    .034902     6.34   0.000     .1515472    .2911288
------------------------------------------------------------------------------


.

. *Model Rev_PA_U1k
```

```
.
. tabulate  Rev_Cluster11_GP              if Target_Beh==4


 Cluster11: |
    Goals & |
 Planning - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |          6        9.52        9.52
          1 |         57       90.48      100.00
------------+-----------------------------------
      Total |         63      100.00


.
. metareg ES  Rev_Cluster11_GP    if Target_Beh==4, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      63
REML estimate of between-study variance               tau2           =  .04784
% residual variation due to heterogeneity             I-squared_res  =  84.13%
Proportion of between-study variance explained        Adj R-squared  =  -1.71%
With Knapp-Hartung modification
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
Rev_Cluster11_GP |  -.0183709   .1284006    -0.14   0.887    -.2751237    .2383819
           _cons |   .2350207    .123583     1.90   0.062    -.0120987    .4821401
------------------------------------------------------------------------------


.
. *Model Rev_PA_U11
.
```

```
. tabulate  Rev_Cluster12_CO              if Target_Beh==4

 Cluster12: |
 Comparison |
of Outcomes |
          - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         51       80.95       80.95
          1 |         12       19.05      100.00
------------+-----------------------------------
      Total |         63      100.00

.
. metareg ES  Rev_Cluster12_CO    if Target_Beh==4, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =      63
REML estimate of between-study variance               tau2           =  .04602
% residual variation due to heterogeneity             I-squared_res  =  84.09%
Proportion of between-study variance explained        Adj R-squared  =   2.16%
With Knapp-Hartung modification
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
Rev_Cluster12_CO |   .1317791   .0822561     1.60   0.114    -.0327022    .2962604
           _cons |   .1911569   .0370336     5.16   0.000     .1171036    .2652101
------------------------------------------------------------------------------

.
. *Model Rev_PA_U1m
.
```

```
. tabulate  Rev_Cluster13_Id              if Target_Beh==4


 Cluster13: |
 Identity - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         62       98.41       98.41
          1 |          1        1.59      100.00
------------+-----------------------------------
      Total |         63      100.00


.
.
. *Model Rev_PA_U1n
.
. tabulate  Rev_Cluster14_NC              if Target_Beh==4


 Cluster14: |
    Natural |
Consequence |
        s - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         51       80.95       80.95
          1 |         12       19.05      100.00
------------+-----------------------------------
      Total |         63      100.00
```

```
.
. metareg ES  Rev_Cluster14_NC    if Target_Beh==4, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =      63
REML estimate of between-study variance               tau2           =  .04806
% residual variation due to heterogeneity             I-squared_res  =  83.84%
Proportion of between-study variance explained        Adj R-squared  =  -2.17%
With Knapp-Hartung modification
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
Rev_Cluster14_NC |   .0201049   .0841351     0.24   0.812    -.1481336    .1883434
           _cons |   .2140177   .0375296     5.70   0.000     .1389726    .2890628
------------------------------------------------------------------------------


.
. *Model Rev_PA_U1o
.
. tabulate  Rev_Cluster15_CB              if Target_Beh==4

 Cluster15: |
 Comparison |
         of |
Behaviour - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         54       85.71       85.71
          1 |          9       14.29      100.00
------------+-----------------------------------
      Total |         63      100.00
```

```
.
. metareg ES  Rev_Cluster15_CB    if Target_Beh==4, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =      63
REML estimate of between-study variance               tau2           =  .04757
% residual variation due to heterogeneity             I-squared_res  =  83.73%
Proportion of between-study variance explained        Adj R-squared  =  -1.13%
With Knapp-Hartung modification
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
Rev_Cluster15_CB |  -.0456556   .0932675    -0.49   0.626    -.2321554    .1408442
           _cons |   .2249121   .0363357     6.19   0.000     .1522544    .2975697
------------------------------------------------------------------------------


.
. *Model Rev_PA_U1p
.
. tabulate  Rev_Cluster16_CL              if Target_Beh==4

 Cluster16: |
     Covert |
 Learning - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         63      100.00      100.00
------------+-----------------------------------
      Total |         63      100.00


..
```

Meta-regression of Intervention function

```
. *Model Rev_PA_U2a

.

. tabulate  Rev_iif1                                if Target_Beh==4


   Rev_iif1 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         27       42.86       42.86
          1 |         36       57.14      100.00
------------+-----------------------------------
      Total |         63      100.00


.

. metareg ES  Rev_iif1                     if Target_Beh==4, wsse(_SE) knapphartung reml


Meta-regression                                         Number of obs  =      63
REML estimate of between-study variance                 tau2           =  .04787
% residual variation due to heterogeneity               I-squared_res  =  83.69%
Proportion of between-study variance explained          Adj R-squared  =  -1.76%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif1 |   .0139292   .0679949     0.20   0.838     -.122035    .1498934
       _cons |   .2099021   .0518578     4.05   0.000     .1062061    .3135982
------------------------------------------------------------------------------


.

. *Model Rev_PA_U2b

.

. tabulate  Rev_iif2                                if Target_Beh==4


   Rev_iif2 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         53       84.13       84.13
```

```
          1 |         10       15.87      100.00
------------+-----------------------------------
      Total |         63      100.00

.
. metareg ES  Rev_iif2                    if Target_Beh==4, wsse(_SE) knapphartung reml

Meta-regression                                         Number of obs  =      63
REML estimate of between-study variance                 tau2           =  .04753
% residual variation due to heterogeneity               I-squared_res  =  83.67%
Proportion of between-study variance explained          Adj R-squared  =  -1.04%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif2 |  -.0547232   .0871524    -0.63   0.532    -.2289952    .1195488
       _cons |   .2278083   .0369353     6.17   0.000     .1539516    .3016649
------------------------------------------------------------------------------

.
. *Model Rev_PA_U2c
.
. tabulate  Rev_iif3                              if Target_Beh==4

   Rev_iif3 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         57       90.48       90.48
          1 |          6        9.52      100.00
------------+-----------------------------------
      Total |         63      100.00

.
. metareg ES  Rev_iif3                    if Target_Beh==4, wsse(_SE) knapphartung reml
```

```
Meta-regression                                         Number of obs  =      63
REML estimate of between-study variance                 tau2           =  .04778
% residual variation due to heterogeneity               I-squared_res  =  83.98%
Proportion of between-study variance explained          Adj R-squared  =  -1.58%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif3 |  -.0528739   .1087849    -0.49   0.629    -.2704027     .164655
       _cons |    .223614   .0354541     6.31   0.000     .1527191    .2945089
------------------------------------------------------------------------------


.
. *Model Rev_PA_U2d
.
. tabulate  Rev_iif4                              if Target_Beh==4


   Rev_iif4 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         63      100.00      100.00
------------+-----------------------------------
      Total |         63      100.00


.
.
. *Model Rev_PA_U2e
.
. tabulate  Rev_iif5                              if Target_Beh==4


   Rev_iif5 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         32       50.79       50.79
          1 |         31       49.21      100.00
------------+-----------------------------------
```

```
      Total |         63      100.00

.
. metareg ES Rev_iif5                              if Target_Beh==4, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =      63
REML estimate of between-study variance               tau2           =  .04799
% residual variation due to heterogeneity             I-squared_res  =  83.61%
Proportion of between-study variance explained        Adj R-squared  =  -2.03%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif5 |  -.0049644   .0671511    -0.07   0.941    -.1392413    .1293125
       _cons |    .220525   .0477617     4.62   0.000     .1250195    .3160304
------------------------------------------------------------------------------

.
. *Model Rev_PA_U2f
.
. tabulate  Rev_iif6                               if Target_Beh==4

   Rev_iif6 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         63      100.00      100.00
------------+-----------------------------------
      Total |         63      100.00

.
.
. *Model Rev_PA_U2g
.
. tabulate Rev_iif7                                if Target_Beh==4
```

```
   Rev_iif7 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         50       79.37       79.37
          1 |         13       20.63      100.00
------------+-----------------------------------
      Total |         63      100.00


.
. metareg ES Rev_iif7                             if Target_Beh==4, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =      63
REML estimate of between-study variance               tau2           =  .04335
% residual variation due to heterogeneity             I-squared_res  =  81.37%
Proportion of between-study variance explained        Adj R-squared  =   7.84%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif7 |   .1723255   .0795511     2.17   0.034     .0132533    .3313976
       _cons |   .1815763   .0364049     4.99   0.000     .1087802    .2543723
------------------------------------------------------------------------------


.
. *Model Rev_PA_U2h
.
. tabulate  Rev_iif8                              if Target_Beh==4

   Rev_iif8 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         60       95.24       95.24
          1 |          3        4.76      100.00
------------+-----------------------------------
      Total |         63      100.00
```

```
.
. metareg ES Rev_iif8                              if Target_Beh==4, wsse(_SE) knapphartung reml

Meta-regression                                        Number of obs  =      63
REML estimate of between-study variance                tau2           =  .04793
% residual variation due to heterogeneity              I-squared_res  =  84.09%
Proportion of between-study variance explained         Adj R-squared  =  -1.90%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif8 |   .0857146   .1513971     0.57   0.573    -.2170227    .3884518
       _cons |   .2135678    .034462     6.20   0.000     .1446567    .2824789
------------------------------------------------------------------------------


.
.
. *Model Rev_PA_U2i
.
. tabulate  Rev_iif9                               if Target_Beh==4

   Rev_iif9 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         11       17.46       17.46
          1 |         52       82.54      100.00
------------+-----------------------------------
      Total |         63      100.00


.
. metareg ES Rev_iif9                              if Target_Beh==4, wsse(_SE) knapphartung reml

Meta-regression                                        Number of obs  =      63
REML estimate of between-study variance                tau2           =  .04694
% residual variation due to heterogeneity              I-squared_res  =  84.00%
```

```
Proportion of between-study variance explained        Adj R-squared  =   0.20%

With Knapp-Hartung modification

------------------------------------------------------------------------------

          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

-------------+----------------------------------------------------------------

    Rev_iif9 |  -.0874393    .092665    -0.94   0.349    -.2727343    .0978558

       _cons |   .2920499   .0853119     3.42   0.001     .1214582    .4626415

------------------------------------------------------------------------------
```

Meta-regression of Theory-basedness

```
. *Model PA_U3

.

. tabulate itb                            if Target_Beh==4


        ITB |      Freq.     Percent        Cum.

------------+-----------------------------------

         No |         34       53.97       53.97

        Yes |         29       46.03      100.00

------------+-----------------------------------

      Total |         63      100.00


.

. metareg ES  itb                         if Target_Beh==4, wsse(_SE) knapphartung reml


Meta-regression                                         Number of obs  =      63

REML estimate of between-study variance                 tau2           =  .04768

% residual variation due to heterogeneity               I-squared_res  =  83.84%

Proportion of between-study variance explained          Adj R-squared  =  -1.36%

With Knapp-Hartung modification

------------------------------------------------------------------------------

          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

-------------+----------------------------------------------------------------

         itb |   -.020661   .0685599    -0.30   0.764    -.1577551     .116433

       _cons |     .22612   .0430054     5.26   0.000     .1401253    .3121146

------------------------------------------------------------------------
```

Revised multivariate analyses

SEXUAL HEALTH

Model SXH_M1: controlling for control group BCT use and theory-basedness

Forward stepwise approach: Step 1

Empty model

```
. *Model SXH_M1

. *Forward stepwise approach: Step 1
```

```
. metareg ES if Target_Beh==1, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      15

REML estimate of between-study variance               tau2           =  .01675

% residual variation due to heterogeneity              I-squared_res  =  45.91%

With Knapp-Hartung modification

------------------------------------------------------------------------------

          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

-------------+----------------------------------------------------------------

       _cons |   .1454386   .0512063     2.84   0.013     .0356119    .2552652

------------------------------------------------------------------------------


.
```

Forward stepwise approach: Step 2

No variables to add (because no variables explained any between-study variance).

ALCOHOL

Model ALC_M1: controlling for control group BCT use and theory-basedness

Forward stepwise approach: Step 1

Empty model

```
. metareg ES if Target_Beh==2, wsse(_SE) knapphartung reml


Meta-regression                                         Number of obs   =      50

REML estimate of between-study variance                 tau2            = .006648

% residual variation due to heterogeneity                I-squared_res   =  24.72%

With Knapp-Hartung modification

------------------------------------------------------------------------------

          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

-------------+----------------------------------------------------------------

       _cons |   .1131187   .0257518     4.39   0.000     .0613684    .1648689

------------------------------------------------------------------------------
```

Forward stepwise approach: Step 2

Add Rev_Cluster8 (in univariate model, adjusted R-sq=32.52%)

```
. metareg ES Rev_Cluster8_SB itb if Target_Beh==2, wsse(_SE) knapphartung reml


Meta-regression                                         Number of obs   =      50

REML estimate of between-study variance                 tau2            = .005059

% residual variation due to heterogeneity                I-squared_res   =  19.64%

Proportion of between-study variance explained          Adj R-squared   =  23.90%

Joint test for all covariates                           Model F(2,47)   =    1.28

With Knapp-Hartung modification                         Prob > F        =  0.2865

-------------------------------------------------------------------------------

             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

----------------+--------------------------------------------------------------

Rev_Cluster8_SB |  -.0929236   .0606907    -1.53   0.132    -.2150175    .0291703

            itb |   .0136772    .080297     0.17   0.865    -.1478596    .1752139

          _cons |   .1293714   .0305673     4.23   0.000      .067878    .1908649

-------------------------------------------------------------------------------
```

.

Forward stepwise approach: Step 3

Add Rev_Cluster3 (in univariate model, adjusted R-sq=28.33%)

```
. metareg ES Rev_Cluster8_SB Rev_Cluster3_FM itb if Target_Beh==2, wsse(_SE) knapphartung reml


Meta-regression                                         Number of obs  =      50

REML estimate of between-study variance                 tau2           = .005745

% residual variation due to heterogeneity                I-squared_res  =  18.40%

Proportion of between-study variance explained          Adj R-squared  =  13.58%

Joint test for all covariates                           Model F(3,46)  =    1.59

With Knapp-Hartung modification                         Prob > F       =  0.2042

------------------------------------------------------------------------------

             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

----------------+-------------------------------------------------------------

Rev_Cluster8_SB |  -.0182243   .0785446    -0.23   0.818    -.1763264    .1398779

Rev_Cluster3_FM |   .0999172   .0654394     1.53   0.134    -.0318055      .23164

            itb |   .0207003    .080699     0.26   0.799    -.1417383     .183139

          _cons |   .0528756    .059225     0.89   0.377    -.0663382    .1720894

------------------------------------------------------------------------------
```

Forward stepwise approach: Step 4

Remove Rev_Cluster8; add IF2: Persuasion (in univariate model, adjusted R-sq=13.75%)

```
. metareg ES Rev_Cluster3_FM Rev_iif2 itb if Target_Beh==2, wsse(_SE) knapphartung reml


Meta-regression                                         Number of obs  =      50

REML estimate of between-study variance                 tau2           =       0

% residual variation due to heterogeneity                I-squared_res  =  11.09%

Proportion of between-study variance explained          Adj R-squared  = 100.00%

Joint test for all covariates                           Model F(3,46)  =    3.96

With Knapp-Hartung modification                         Prob > F       =  0.0136

------------------------------------------------------------------------------

             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

----------------+-------------------------------------------------------------

Rev_Cluster3_FM |   .1208483   .0419931     2.88   0.006     .0363207     .205376

       Rev_iif2 |  -.0880264   .0417091    -2.11   0.040    -.1719825   -.0040702

            itb |   .0299159    .073076     0.41   0.684    -.1171785    .1770102
```

```
          _cons |   .0628906   .0358899     1.75   0.086    -.0093521    .1351333
------------------------------------------------------------------------------
```

Forward stepwise approach: Step 5

Add Rev_Cluster11 (in univariate model, adjusted R-sq=3.32%)

```
. metareg ES Rev_Cluster3_FM Rev_iif2 Rev_Cluster11_GP itb if Target_Beh==2, wsse(_SE)
knapphartung reml


Meta-regression                                         Number of obs  =      50

REML estimate of between-study variance                 tau2           = .001076

% residual variation due to heterogeneity                I-squared_res  =  11.47%

Proportion of between-study variance explained          Adj R-squared  =  83.82%

Joint test for all covariates                           Model F(4,45)  =    2.66

With Knapp-Hartung modification                         Prob > F       =  0.0449

------------------------------------------------------------------------------

              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

-----------------+------------------------------------------------------------

 Rev_Cluster3_FM |   .1227478   .0448932     2.73   0.009     .0323283    .2131673

        Rev_iif2 |  -.0712201   .0464716    -1.53   0.132    -.1648186    .0223785

Rev_Cluster11_GP |  -.0415904   .0459954    -0.90   0.371    -.1342299    .0510492

             itb |   .0209602   .0744111     0.28   0.779    -.1289115     .170832

           _cons |   .0789699   .0415639     1.90   0.064     -.004744    .1626838

------------------------------------------------------------------------------


.
```

Forward stepwise approach: Step 6

Remove Rev_Cluster11; Add Rev_Cluster5 (in univariate model, adjusted R-sq=1.54%)

```
. metareg ES Rev_Cluster3_FM Rev_iif2 Rev_Cluster5_RS itb if Target_Beh==2, wsse(_SE)
knapphartung reml

numerical derivatives are approximate

nearby values are missing

numerical derivatives are approximate

nearby values are missing

numerical derivatives are approximate

nearby values are missing

numerical derivatives are approximate

nearby values are missing
```

```
numerical derivatives are approximate
nearby values are missing
numerical derivatives are approximate
nearby values are missing

Meta-regression                                      Number of obs  =      50
REML estimate of between-study variance              tau2           =       0
% residual variation due to heterogeneity            I-squared_res  =   8.89%
Proportion of between-study variance explained       Adj R-squared  = 100.00%
Joint test for all covariates                        Model F(4,45)  =    3.58
With Knapp-Hartung modification                      Prob > F       =  0.0129
------------------------------------------------------------------------------
             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
----------------+-------------------------------------------------------------
Rev_Cluster3_FM |   .1215433   .0414862     2.93   0.005     .0379858    .2051007
       Rev_iif2 |  -.0986707   .0418414    -2.36   0.023    -.1829435   -.0143978
Rev_Cluster5_RS |   .1805041   .1234722     1.46   0.151    -.0681815    .4291898
            itb |   .0348829   .0722691     0.48   0.632    -.1106745    .1804403
          _cons |   .0620606   .0354589     1.75   0.087    -.0093573    .1334786
------------------------------------------------------------------------------.
```

Forward stepwise approach: Final Step

Remove Rev_Cluster5 because insufficient data (see tabulations below)

```
. metareg ES Rev_Cluster3_FM Rev_iif2 itb if Target_Beh==2, wsse(_SE) knapphartung reml
Meta-regression                                      Number of obs  =      50
REML estimate of between-study variance              tau2           =       0
% residual variation due to heterogeneity            I-squared_res  =  11.09%
Proportion of between-study variance explained       Adj R-squared  = 100.00%
Joint test for all covariates                        Model F(3,46)  =    3.96
With Knapp-Hartung modification                      Prob > F       =  0.0136
------------------------------------------------------------------------------
             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
----------------+-------------------------------------------------------------
Rev_Cluster3_FM |   .1208483   .0419931     2.88   0.006     .0363207     .205376
       Rev_iif2 |  -.0880264   .0417091    -2.11   0.040    -.1719825   -.0040702
```

```
         itb |   .0299159    .073076     0.41   0.684    -.1171785    .1770102
       _cons |   .0628906   .0358899     1.75   0.086    -.0093521    .1351333
------------------------------------------------------------------------------
```

.

Tabulations

```
-> tabulation of Rev_Cluster3_FM by Rev_iif2 if Target_Beh==2


 Cluster3: |
Feedback & |
Monitoring |
         - |
Controllin |
     g for |
comparator |       Rev_iif2
       use |         0          1 |     Total
-----------+----------------------+----------
         0 |        12          3 |        15
         1 |        17         18 |        35
-----------+----------------------+----------
     Total |        29         21 |        50



-> tabulation of Rev_Cluster3_FM by Rev_Cluster5_RS if Target_Beh==2


 Cluster3: |
Feedback & |
Monitoring |
         - | Cluster5: Repetition
Controllin |  and Substitutions -
     g for |    Controlling for
comparator |    comparator use
       use |         0          1 |     Total
-----------+----------------------+----------
         0 |        14          1 |        15
```

```
         1 |        33          2 |        35
-----------+----------------------+----------
     Total |        47          3 |        50


-> tabulation of Rev_Cluster3_FM by itb if Target_Beh==2


 Cluster3: |
Feedback & |
Monitoring |
         - |
Controllin |
     g for |
comparator |          ITB
       use |        No        Yes |     Total
-----------+----------------------+----------
         0 |        14          1 |        15
         1 |        30          5 |        35
-----------+----------------------+----------
     Total |        44          6 |        50


-> tabulation of Rev_iif2 by Rev_Cluster5_RS if Target_Beh==2


           | Cluster5: Repetition
           |  and Substitutions -
           |    Controlling for
           |    comparator use
  Rev_iif2 |         0          1 |     Total
-----------+----------------------+----------
         0 |        29          0 |        29
         1 |        18          3 |        21
-----------+----------------------+----------
     Total |        47          3 |        50
```

```
-> tabulation of Rev_iif2 by itb if Target_Beh==2


           |          ITB
  Rev_iif2 |        No        Yes |     Total
-----------+----------------------+----------
         0 |        25          4 |        29
         1 |        19          2 |        21
-----------+----------------------+----------
     Total |        44          6 |        50



-> tabulation of Rev_Cluster5_RS by itb if Target_Beh==2


 Cluster5: |
Repetition |
       and |
Substituti |
     ons - |
Controllin |
     g for |
comparator |          ITB
       use |        No        Yes |     Total
-----------+----------------------+----------
         0 |        41          6 |        47
         1 |         3          0 |         3
-----------+----------------------+----------
     Total |        44          6 |        50
```

Model ALC_M1: controlling for control group BCT use and theory-basedness (Long-term FU only)

```
. tabulate FU_Cat if Target_Beh==2


FU Category |      Freq.     Percent        Cum.
```

```
------------+-----------------------------------
      Short |         27       54.00       54.00
       Long |         23       46.00      100.00
------------+-----------------------------------
      Total |         50      100.00
```

Forward stepwise approach: Step 1

Empty model

```
.

. *Forward stepwise approach: Step 1

. metareg ES if Target_Beh==2 & FU_Cat==1, wsse(_SE) knapphartung reml


Meta-regression                                     Number of obs  =      23
REML estimate of between-study variance             tau2           = .002768
% residual variation due to heterogeneity           I-squared_res  =  10.15%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       _cons |   .0581953   .0271456     2.14   0.043     .0018987    .1144918
------------------------------------------------------------------------------


.

.
```

Forward stepwise approach: Final Step

```
. metareg ES Rev_Cluster3_FM Rev_iif2 itb if Target_Beh==2 & FU_Cat==1, wsse(_SE) knapphartung
reml

numerical derivatives are approximate

nearby values are missing

numerical derivatives are approximate

nearby values are missing

numerical derivatives are approximate

nearby values are missing

numerical derivatives are approximate
```

```
nearby values are missing


Meta-regression                                        Number of obs  =      23
REML estimate of between-study variance                tau2           =       0
% residual variation due to heterogeneity              I-squared_res  =   0.00%
Proportion of between-study variance explained         Adj R-squared  = 100.00%
Joint test for all covariates                          Model F(3,19)  =    3.15
With Knapp-Hartung modification                        Prob > F       =  0.0489
------------------------------------------------------------------------------
             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
----------------+-------------------------------------------------------------
Rev_Cluster3_FM |   .1080251   .0454107     2.38   0.028     .0129793    .2030708
       Rev_iif2 |   -.092808   .0456231    -2.03   0.056    -.1882984    .0026823
            itb |   .0882682   .0905297     0.98   0.342    -.1012128    .2777491
          _cons |   .0389308   .0393843     0.99   0.335    -.0435016    .1213632
------------------------------------------------------------------------------
```

SMOKING

Model SMK_M1: controlling for control group BCT use and theory-basedness

Forward stepwise approach: Step 1

Empty model

```
. metareg ES if Target_Beh==3, wsse(_SE) knapphartung reml


Meta-regression                                     Number of obs   =      80

REML estimate of between-study variance             tau2            =  .03988

% residual variation due to heterogeneity            I-squared_res   =  68.06%

With Knapp-Hartung modification

------------------------------------------------------------------------------

          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

-------------+----------------------------------------------------------------

       _cons |   .2810698   .0337618     8.33   0.000     .2138685     .348271

------------------------------------------------------------------------------
```

Forward stepwise approach: Step 2

Add Rev_Cluster1: Social Support (in univariate model, adjusted R-sq= 12.17%)

```
. metareg ES Rev_Cluster1_SS itb if Target_Beh==3, wsse(_SE) knapphartung reml


Meta-regression                                     Number of obs   =      80

REML estimate of between-study variance             tau2            =  .03368

% residual variation due to heterogeneity            I-squared_res   =  62.04%

Proportion of between-study variance explained      Adj R-squared   =  15.55%

Joint test for all covariates                       Model F(2,77)   =    2.92

With Knapp-Hartung modification                     Prob > F        =  0.0601

-------------------------------------------------------------------------------

             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

----------------+--------------------------------------------------------------

Rev_Cluster1_SS |   .1149434   .0711713     1.62   0.110    -.0267768    .2566636

            itb |  -.0890835   .0809849    -1.10   0.275    -.2503451    .0721781

          _cons |   .2293746   .0631368     3.63   0.001     .1036531    .3550961

-------------------------------------------------------------------------------
```

Forward stepwise approach: Step 3

Add Rev_Cluster2: Regulation (in univariate model, adjusted R-sq=6.12%)

```
. metareg ES Rev_Cluster1_SS Rev_Cluster2_Reg itb if Target_Beh==3, wsse(_SE) knapphartung reml


Meta-regression                                         Number of obs  =      80

REML estimate of between-study variance                 tau2           =   .0331

% residual variation due to heterogeneity                I-squared_res  =  59.38%

Proportion of between-study variance explained          Adj R-squared  =  16.99%

Joint test for all covariates                           Model F(3,76)  =    2.30

With Knapp-Hartung modification                         Prob > F       =  0.0837

------------------------------------------------------------------------------

              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

-----------------+------------------------------------------------------------

 Rev_Cluster1_SS |    .092852   .0743044     1.25   0.215     -.055138    .2408421

Rev_Cluster2_Reg |   .0673535   .0677483     0.99   0.323    -.0675789    .2022859

             itb |  -.0897785    .080646    -1.11   0.269     -.250399    .0708419

           _cons |   .2110208   .0654701     3.22   0.002     .0806257    .3414159

------------------------------------------------------------------------------
```

Forward stepwise approach: Step 4

Add Rev_iif7: Environmental Restructuring (in univariate model, adjusted R-sq=4.56%)

```
. metareg ES Rev_Cluster1_SS Rev_Cluster2_Reg Rev_iif7 itb if Target_Beh==3, wsse(_SE)
knapphartung reml


Meta-regression                                         Number of obs  =      80

REML estimate of between-study variance                 tau2           =  .03303

% residual variation due to heterogeneity                I-squared_res  =  55.96%

Proportion of between-study variance explained          Adj R-squared  =  17.18%

Joint test for all covariates                           Model F(4,75)  =    1.81

With Knapp-Hartung modification                         Prob > F       =  0.1350

------------------------------------------------------------------------------

              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

-----------------+------------------------------------------------------------

 Rev_Cluster1_SS |   .0863228   .0751208     1.15   0.254    -.0633255    .2359711

Rev_Cluster2_Reg |   .0620484   .0683348     0.91   0.367    -.0740814    .1981782

        Rev_iif7 |   .0475585   .0824318     0.58   0.566     -.116654     .211771
```

```
             itb |  -.0879165     .08067    -1.09   0.279    -.2486194    .0727863
           _cons |   .2074514   .0657187     3.16   0.002     .0765331    .3383698
------------------------------------------------------------------------------
```

Forward stepwise approach: Final Step

Add Rev_Cluster11 (adj R-sq=2.62%)

```
. metareg ES Rev_Cluster1_SS Rev_Cluster2_Reg Rev_iif7 Rev_Cluster11_GP itb if Target_Beh==3,
wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      80
REML estimate of between-study variance               tau2           =  .02622
% residual variation due to heterogeneity             I-squared_res  =  44.98%
Proportion of between-study variance explained        Adj R-squared  =  34.26%
Joint test for all covariates                         Model F(5,74)  =    2.63
With Knapp-Hartung modification                       Prob > F       =  0.0306
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
 Rev_Cluster1_SS |   .1183414   .0727628     1.63   0.108    -.0266417    .2633245
Rev_Cluster2_Reg |   .0925354    .065736     1.41   0.163    -.0384463    .2235171
        Rev_iif7 |   .0557341   .0769762     0.72   0.471    -.0976443    .2091126
Rev_Cluster11_GP |  -.1366094   .0665985    -2.05   0.044    -.2693098    -.003909
             itb |  -.0705121   .0772364    -0.91   0.364     -.224409    .0833848
           _cons |   .2506582   .0660744     3.79   0.000      .119002    .3823143
------------------------------------------------------------------------------
```

No further variables to add or remove.

Tabulations

```
. tab2 Rev_Cluster1_SS Rev_Cluster2_Reg Rev_iif7 Rev_Cluster11_GP itb if Target_Beh==3


-> tabulation of Rev_Cluster1_SS by Rev_Cluster2_Reg if Target_Beh==3


 Cluster1: |
    Social |
 Support - |
```

```
Controllin | Cluster2: Regulation
     g for |   - Controlling for
comparator |    comparator use
       use |         0          1 |     Total
-----------+----------------------+----------
         0 |        22          7 |        29
         1 |        20         31 |        51
-----------+----------------------+----------
     Total |        42         38 |        80


-> tabulation of Rev_Cluster1_SS by Rev_iif7 if Target_Beh==3

 Cluster1: |
    Social |
 Support - |
Controllin |
     g for |
comparator |       Rev_iif7
       use |         0          1 |     Total
-----------+----------------------+----------
         0 |        27          2 |        29
         1 |        39         12 |        51
-----------+----------------------+----------
     Total |        66         14 |        80


-> tabulation of Rev_Cluster1_SS by Rev_Cluster11_GP if Target_Beh==3

 Cluster1: |
    Social |
 Support - |  Cluster11: Goals &
Controllin |      Planning -
     g for |    Controlling for
```

```
comparator |    comparator use
       use |         0          1 |     Total
-----------+----------------------+----------
         0 |        14         15 |        29
         1 |        16         35 |        51
-----------+----------------------+----------
     Total |        30         50 |        80


-> tabulation of Rev_Cluster1_SS by itb if Target_Beh==3

 Cluster1: |
    Social |
 Support - |
Controllin |
     g for |
comparator |          ITB
       use |        No        Yes |     Total
-----------+----------------------+----------
         0 |        16         13 |        29
         1 |        43          8 |        51
-----------+----------------------+----------
     Total |        59         21 |        80


-> tabulation of Rev_Cluster2_Reg by Rev_iif7 if Target_Beh==3

 Cluster2: |
Regulation |
         - |
Controllin |
     g for |
comparator |       Rev_iif7
       use |         0          1 |     Total
```

```
-----------+----------------------+----------
         0 |        39          3 |        42
         1 |        27         11 |        38
-----------+----------------------+----------
     Total |        66         14 |        80


-> tabulation of Rev_Cluster2_Reg by Rev_Cluster11_GP if Target_Beh==3


 Cluster2: |
Regulation |
         - |  Cluster11: Goals &
Controllin |      Planning -
     g for |    Controlling for
comparator |    comparator use
       use |         0          1 |     Total
-----------+----------------------+----------
         0 |        20         22 |        42
         1 |        10         28 |        38
-----------+----------------------+----------
     Total |        30         50 |        80


-> tabulation of Rev_Cluster2_Reg by itb if Target_Beh==3


 Cluster2: |
Regulation |
         - |
Controllin |
     g for |
comparator |          ITB
       use |        No        Yes |     Total
-----------+----------------------+----------
         0 |        29         13 |        42
```

```
         1 |        30          8 |        38
-----------+----------------------+----------
     Total |        59         21 |        80


-> tabulation of Rev_iif7 by Rev_Cluster11_GP if Target_Beh==3


           |  Cluster11: Goals &
           |      Planning -
           |    Controlling for
           |    comparator use
  Rev_iif7 |         0          1 |     Total
-----------+----------------------+----------
         0 |        25         41 |        66
         1 |         5          9 |        14
-----------+----------------------+----------
     Total |        30         50 |        80


-> tabulation of Rev_iif7 by itb if Target_Beh==3


           |          ITB
  Rev_iif7 |        No        Yes |     Total
-----------+----------------------+----------
         0 |        48         18 |        66
         1 |        11          3 |        14
-----------+----------------------+----------
     Total |        59         21 |        80


-> tabulation of Rev_Cluster11_GP by itb if Target_Beh==3


Cluster11: |
   Goals & |
```

```
Planning - |
Controllin |
     g for |
comparator |          ITB
       use |        No        Yes |     Total
-----------+----------------------+----------
         0 |        24          6 |        30
         1 |        35         15 |        50
-----------+----------------------+----------
     Total |        59         21 |        80
```

Model SMK_M1: controlling for control group BCT/IF use and theory-basedness (Long-term FU only)

```
. tabulate FU_Cat if Target_Beh==3


FU Category |      Freq.     Percent        Cum.
------------+-----------------------------------
      Short |         50       62.50       62.50
       Long |         30       37.50      100.00
------------+-----------------------------------
      Total |         80      100.00


.
```

Forward stepwise approach: Step 1

```
. metareg ES if Target_Beh==3 & FU_Cat==1, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      30
REML estimate of between-study variance               tau2           =  .05244
% residual variation due to heterogeneity             I-squared_res  =  79.35%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       _cons |   .2466204   .0601454     4.10   0.000     .1236092    .3696316
------------------------------------------------------------------------------
```

Forward stepwise approach: Final Step

```
. metareg ES Rev_Cluster1_SS Rev_Cluster2_Reg Rev_iif7 Rev_Cluster11_GP itb if Target_Beh==3 &
FU_Cat==1, wsse(_SE) knapphartung reml


Meta-regression                                         Number of obs  =      30

REML estimate of between-study variance                 tau2           =  .03089

% residual variation due to heterogeneity                I-squared_res  =  39.81%

Proportion of between-study variance explained          Adj R-squared  =  41.09%

Joint test for all covariates                           Model F(5,24)  =    2.28

With Knapp-Hartung modification                         Prob > F       =  0.0789

------------------------------------------------------------------------------

              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

-----------------+------------------------------------------------------------

 Rev_Cluster1_SS |  -.1293086   .1861902    -0.69   0.494    -.5135862    .2549691

Rev_Cluster2_Reg |   .1043233   .1183233     0.88   0.387     -.139884    .3485306

        Rev_iif7 |   .1331162   .1172489     1.14   0.267    -.1088737     .375106

Rev_Cluster11_GP |  -.2309401   .1165561    -1.98   0.059    -.4715002      .00962

             itb |  -.2157067   .1797763    -1.20   0.242    -.5867468    .1553333

           _cons |   .4755018   .2200201     2.16   0.041     .0214025     .929601

------------------------------------------------------------------------------
```

DIET

Model Diet_M1: controlling for control group cluster/IF use and theory-basedness

Forward stepwise approach: Step 1

Empty model

```
. metareg ES if Target_Beh==5, wsse(_SE) knapphartung reml


Meta-regression                                         Number of obs  =      27

REML estimate of between-study variance                 tau2           =  .04481

% residual variation due to heterogeneity                I-squared_res  =  76.05%

With Knapp-Hartung modification

------------------------------------------------------------------------------

          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

-------------+----------------------------------------------------------------

       _cons |   .3275228   .0491847     6.66   0.000     .2264223    .4286234
```

```
------------------------------------------------------------------------------
```

Forward stepwise approach: Step 2

Add Rev_Cluster12_CO (adj R-sq=14.85%)

```
. metareg ES Rev_Cluster12_CO itb if Target_Beh==5, wsse(_SE) knapphartung reml


Meta-regression                                     Number of obs  =      27
REML estimate of between-study variance             tau2           =  .04039
% residual variation due to heterogeneity           I-squared_res  =  77.72%
Proportion of between-study variance explained      Adj R-squared  =   9.87%
Joint test for all covariates                       Model F(2,24)  =    2.10
With Knapp-Hartung modification                     Prob > F       =  0.1444
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
Rev_Cluster12_CO |   .2533955    .124269     2.04   0.053    -.0030832    .5098742
             itb |  -.0233127   .0958802    -0.24   0.810    -.2211996    .1745742
           _cons |   .2926901    .066094     4.43   0.000     .1562789    .4291014
------------------------------------------------------------------------------
.
```

Forward stepwise approach: Step 3

Add Rev_iif5 (adj R-sq=8.36%)

```
. metareg ES Rev_Cluster12_CO Rev_iif5 itb if Target_Beh==5, wsse(_SE) knapphartung reml


Meta-regression                                     Number of obs  =      27
REML estimate of between-study variance             tau2           =  .03673
% residual variation due to heterogeneity           I-squared_res  =  74.50%
Proportion of between-study variance explained      Adj R-squared  =  18.03%
Joint test for all covariates                       Model F(3,23)  =    2.26
With Knapp-Hartung modification                     Prob > F       =  0.1083
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
Rev_Cluster12_CO |   .2373918   .1206416     1.97   0.061    -.0121744    .4869581
```

```
        Rev_iif5 |  -.1412483   .0928821    -1.52   0.142    -.3333896     .050893
             itb |  -.0313591   .0930178    -0.34   0.739    -.2237812    .1610629
           _cons |   .3774875   .0851006     4.44   0.000     .2014436    .5535314
------------------------------------------------------------------------------
```

Forward stepwise approach: Step 4

Add Rev_Cluster7_SK (adj R-sq=2.11%)

```
. metareg ES Rev_Cluster12_CO Rev_iif5 Rev_Cluster7_SK itb if Target_Beh==5, wsse(_SE)
knapphartung reml


Meta-regression                                         Number of obs  =      27
REML estimate of between-study variance                 tau2           =  .03891
% residual variation due to heterogeneity               I-squared_res  =  75.58%
Proportion of between-study variance explained          Adj R-squared  =  13.17%
Joint test for all covariates                           Model F(4,22)  =    1.63
With Knapp-Hartung modification                         Prob > F       =  0.2018
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
Rev_Cluster12_CO |   .2382906   .1233219     1.93   0.066    -.0174634    .4940445
        Rev_iif5 |  -.1551176     .14614    -1.06   0.300    -.4581935    .1479583
 Rev_Cluster7_SK |   .0190594   .1474393     0.13   0.898     -.286711    .3248298
             itb |  -.0344384   .0963587    -0.36   0.724    -.2342741    .1653973
           _cons |   .3784034    .087073     4.35   0.000      .197825    .5589817
------------------------------------------------------------------------------
.
```

Forward stepwise approach: Final Step

Remove Rev_Cluster7_SK

```
. metareg ES Rev_Cluster12_CO Rev_iif5 itb if Target_Beh==5, wsse(_SE) knapphartung reml


Meta-regression                                         Number of obs  =      27
REML estimate of between-study variance                 tau2           =  .03673
% residual variation due to heterogeneity               I-squared_res  =  74.50%
Proportion of between-study variance explained          Adj R-squared  =  18.03%
```

```
Joint test for all covariates                          Model F(3,23)  =    2.26

With Knapp-Hartung modification                        Prob > F       =  0.1083

------------------------------------------------------------------------------

              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

-----------------+------------------------------------------------------------

Rev_Cluster12_CO |   .2373918   .1206416     1.97   0.061    -.0121744    .4869581

        Rev_iif5 |  -.1412483   .0928821    -1.52   0.142    -.3333896     .050893

             itb |  -.0313591   .0930178    -0.34   0.739    -.2237812    .1610629

           _cons |   .3774875   .0851006     4.44   0.000     .2014436    .5535314

------------------------------------------------------------------------------
```

Model Diet_M1: controlling for control group cluster/IF use and theory-basedness (Long-term FU only)

```
. tabulate FU_Cat if Target_Beh==5


FU Category |      Freq.     Percent        Cum.

------------+-----------------------------------

      Short |         18       66.67       66.67

       Long |          9       33.33      100.00

------------+-----------------------------------

      Total |         27      100.00
```

Forward stepwise approach: Step 1

Empty model

```
. metareg ES if Target_Beh==5 & FU_Cat==1, wsse(_SE) knapphartung reml


Meta-regression                                        Number of obs  =       9

REML estimate of between-study variance                tau2           =  .01207

% residual variation due to heterogeneity               I-squared_res  =  50.72%

With Knapp-Hartung modification

------------------------------------------------------------------------------

          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

-------------+----------------------------------------------------------------

       _cons |   .3347802   .0633407     5.29   0.001     .1887163    .4808442

------------------------------------------------------------------------------

.
```

Forward stepwise approach: Final Step

```
. metareg ES Rev_Cluster12_CO Rev_iif5 itb if Target_Beh==5 & FU_Cat==1, wsse(_SE) knapphartung
reml

note: Rev_Cluster12_CO dropped because of collinearity


Meta-regression                                         Number of obs  =       9

REML estimate of between-study variance                 tau2           = .000233

% residual variation due to heterogeneity                I-squared_res  =  26.58%

Proportion of between-study variance explained          Adj R-squared  =  98.07%

Joint test for all covariates                           Model F(2,6)   =    2.96

With Knapp-Hartung modification                         Prob > F       =  0.1278

------------------------------------------------------------------------------

          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

-------------+----------------------------------------------------------------

    Rev_iif5 |  -.1883234   .0945765    -1.99   0.094    -.4197438     .043097

         itb |  -.1098905   .1579619    -0.70   0.513    -.4964094    .2766285

       _cons |   .4504277   .0650341     6.93   0.000      .291295    .6095603

------------------------------------------------------------------------------
```

PHYSICAL ACTIVITY

Model PA_M1: controlling for control group cluster/IF use and theory-basedness

Forward stepwise approach: Step 1

Empty model

```
. metareg ES if Target_Beh==4, wsse(_SE) knapphartung reml


Meta-regression                                         Number of obs  =      63

REML estimate of between-study variance                 tau2           =  .04704

% residual variation due to heterogeneity                I-squared_res  =  83.87%

With Knapp-Hartung modification

------------------------------------------------------------------------------

          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

-------------+----------------------------------------------------------------

       _cons |   .2179438   .0333294     6.54   0.000     .1513193    .2845684

------------------------------------------------------------------------------
```

Forward stepwise approach: Step 2

Add Rev_Cluster5_RS (adj R-sq=19.19%)

```
. metareg ES Rev_Cluster5_RS itb if Target_Beh==4, wsse(_SE) knapphartung reml


Meta-regression                                         Number of obs  =      63
REML estimate of between-study variance                 tau2           =  .03874
% residual variation due to heterogeneity               I-squared_res  =  78.84%
Proportion of between-study variance explained          Adj R-squared  =  17.64%
Joint test for all covariates                           Model F(2,60)  =    3.98
With Knapp-Hartung modification                         Prob > F       =  0.0238
------------------------------------------------------------------------------
             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
----------------+-------------------------------------------------------------
Rev_Cluster5_RS |    .190378    .068091     2.80   0.007     .0541758    .3265802
            itb |  -.0108988   .0640832    -0.17   0.866    -.1390844    .1172867
          _cons |   .1643914   .0455364     3.61   0.001     .0733051    .2554778
------------------------------------------------------------------------------
.
```

Forward stepwise approach: Step 3

Add Rev_iif7 (adj R-sq=7.84%)

```
. metareg ES Rev_Cluster5_RS iif7 itb if Target_Beh==4, wsse(_SE) knapphartung reml


Meta-regression                                         Number of obs  =      63
REML estimate of between-study variance                 tau2           =  .03711
% residual variation due to heterogeneity               I-squared_res  =  78.74%
Proportion of between-study variance explained          Adj R-squared  =  21.10%
Joint test for all covariates                           Model F(3,59)  =    3.86
With Knapp-Hartung modification                         Prob > F       =  0.0138
------------------------------------------------------------------------------
             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
----------------+-------------------------------------------------------------
Rev_Cluster5_RS |   .1822159   .0673186     2.71   0.009     .0475116    .3169201
           iif7 |    .132116   .0734578     1.80   0.077    -.0148726    .2791047
```

```
            itb |  -.0214219   .0634196    -0.34   0.737    -.1483242    .1054804
          _cons |   .1405522   .0466863     3.01   0.004     .0471332    .2339713
------------------------------------------------------------------------------
```

Forward stepwise approach: Step 4

Add Rev_Cluster3_FM (adj R-sq=3%)

```
. metareg ES Rev_Cluster5_RS iif7 Rev_Cluster3_FM itb if Target_Beh==4, wsse(_SE) knapphartung
reml


Meta-regression                                         Number of obs  =      63
REML estimate of between-study variance                 tau2           =  .03565
% residual variation due to heterogeneity               I-squared_res  =  78.71%
Proportion of between-study variance explained          Adj R-squared  =  24.21%
Joint test for all covariates                           Model F(4,58)  =    3.70
With Knapp-Hartung modification                         Prob > F       =  0.0095
------------------------------------------------------------------------------
             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
----------------+-------------------------------------------------------------
Rev_Cluster5_RS |   .1839052    .066431     2.77   0.008     .0509291    .3168812
           iif7 |   .1340171   .0724218     1.85   0.069    -.0109508     .278985
Rev_Cluster3_FM |  -.1007889   .0605277    -1.67   0.101    -.2219483    .0203705
            itb |  -.0239604   .0626053    -0.38   0.703    -.1492785    .1013576
          _cons |   .1920973   .0555253     3.46   0.001     .0809513    .3032433
------------------------------------------------------------------------------
.
```

Forward stepwise approach: Step 5

Add Rev_Cluster12_CO (adj R-sq=2.16%)

```
. metareg ES Rev_Cluster5_RS iif7 Rev_Cluster3_FM Rev_Cluster12_CO itb if Target_Beh==4,
wsse(_SE) knapphartung reml


Meta-regression                                         Number of obs  =      63
REML estimate of between-study variance                 tau2           =   .0355
% residual variation due to heterogeneity               I-squared_res  =  78.01%
Proportion of between-study variance explained          Adj R-squared  =  24.54%
Joint test for all covariates                           Model F(5,57)  =    3.49
```

```
With Knapp-Hartung modification                       Prob > F       =  0.0081

------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
 Rev_Cluster5_RS |   .1787967    .066415     2.69   0.009     .0458028    .3117905
            iif7 |   .1487557   .0728902     2.04   0.046     .0027956    .2947158
 Rev_Cluster3_FM |  -.0872288   .0610214    -1.43   0.158    -.2094219    .0349644
Rev_Cluster12_CO |    .123353   .0766079     1.61   0.113    -.0300517    .2767578
             itb |   -.014026   .0628239    -0.22   0.824    -.1398286    .1117766
           _cons |    .154133   .0602356     2.56   0.013     .0335132    .2747527
------------------------------------------------------------------------------
```

Forward stepwise approach: Step 6

Add Rev_Cluster1_SS (adj R-sq=1.61%)

```
. metareg ES Rev_Cluster5_RS iif7 Rev_Cluster3_FM Rev_Cluster12_CO Rev_Cluster1_SS itb if
Target_Beh==4, wsse(_SE) knapphartung

> reml


Meta-regression                                       Number of obs  =      63

REML estimate of between-study variance               tau2           =  .03305

% residual variation due to heterogeneity              I-squared_res  =  77.29%

Proportion of between-study variance explained        Adj R-squared  =  29.74%

Joint test for all covariates                         Model F(6,56)  =    3.69

With Knapp-Hartung modification                       Prob > F       =  0.0037

------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
 Rev_Cluster5_RS |   .1839391   .0649115     2.83   0.006     .0539057    .3139725
            iif7 |   .1587146   .0712891     2.23   0.030     .0159053    .3015239
 Rev_Cluster3_FM |  -.0914364    .059603    -1.53   0.131    -.2108356    .0279627
Rev_Cluster12_CO |   .1239221   .0747094     1.66   0.103    -.0257389     .273583
 Rev_Cluster1_SS |  -.1313586   .0685005    -1.92   0.060    -.2685816    .0058645
             itb |  -.0333263   .0621844    -0.54   0.594    -.1578966     .091244
           _cons |   .2566069   .0794835     3.23   0.002     .0973823    .4158315
------------------------------------------------------------------------------
```

Forward stepwise approach: Step 7

Add Rev_Cluster6_Ant (adj R-sq=1.46%)

```
. metareg ES Rev_Cluster5_RS iif7 Rev_Cluster3_FM Rev_Cluster12_CO Rev_Cluster1_SS
Rev_Cluster6_Ant itb if Target_Beh==4, wsse(_

> SE) knapphartung reml


Meta-regression                                         Number of obs  =      63

REML estimate of between-study variance                 tau2           =  .03371

% residual variation due to heterogeneity                I-squared_res  =  77.69%

Proportion of between-study variance explained          Adj R-squared  =  28.33%

Joint test for all covariates                           Model F(7,55)  =    3.13

With Knapp-Hartung modification                         Prob > F       =  0.0075

------------------------------------------------------------------------------

              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

-----------------+------------------------------------------------------------

 Rev_Cluster5_RS |   .1901065   .0683287     2.78   0.007     .0531726    .3270404

            iif7 |   .1811426   .0988813     1.83   0.072      -.01702    .3793052

 Rev_Cluster3_FM |  -.0893819    .060309    -1.48   0.144    -.2102439    .0314801

Rev_Cluster12_CO |   .1240565    .075244     1.65   0.105    -.0267359    .2748488

 Rev_Cluster1_SS |  -.1259229   .0707903    -1.78   0.081    -.2677898     .015944

Rev_Cluster6_Ant |  -.0307789   .0941853    -0.33   0.745    -.2195303    .1579726

             itb |  -.0288869   .0638773    -0.45   0.653    -.1568999    .0991261

           _cons |   .2531376   .0805971     3.14   0.003     .0916175    .4146578

------------------------------------------------------------------------------
```

Forward stepwise approach: Step 8

Remove Rev_Cluster6_Ant; Add Rev_Cluster2_Reg (adj R-sq=0.38%)

```
. metareg ES Rev_Cluster5_RS iif7 Rev_Cluster3_FM Rev_Cluster12_CO Rev_Cluster1_SS
Rev_Cluster2_Reg itb if Target_Beh==4, wsse(_

> SE) knapphartung reml


Meta-regression                                         Number of obs  =      63

REML estimate of between-study variance                 tau2           =  .03371

% residual variation due to heterogeneity                I-squared_res  =  76.41%

Proportion of between-study variance explained          Adj R-squared  =  28.34%

Joint test for all covariates                           Model F(7,55)  =    3.12
```

```
With Knapp-Hartung modification                       Prob > F       =  0.0077
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
 Rev_Cluster5_RS |   .1846726   .0656847     2.81   0.007     .0530376    .3163077
            iif7 |   .1558221   .0743023     2.10   0.041     .0069169    .3047274
 Rev_Cluster3_FM |  -.0898556   .0607235    -1.48   0.145    -.2115482    .0318369
Rev_Cluster12_CO |   .1208076   .0785289     1.54   0.130    -.0365679    .2781831
 Rev_Cluster1_SS |  -.1315213   .0689368    -1.91   0.062    -.2696736    .0066311
Rev_Cluster2_Reg |  -.0128544   .0795368    -0.16   0.872    -.1722497    .1465408
             itb |  -.0333679   .0625921    -0.53   0.596    -.1588053    .0920695
           _cons |   .2598202   .0826577     3.14   0.003     .0941704    .4254699
```

Forward stepwise approach: Final Step

Remove Rev_Cluster2_Reg (adj R-sq=0.38%)

```
. metareg ES Rev_Cluster5_RS iif7 Rev_Cluster3_FM Rev_Cluster12_CO Rev_Cluster1_SS itb if
Target_Beh==4, wsse(_SE) knapphartung

> reml


Meta-regression                                       Number of obs  =      63
REML estimate of between-study variance               tau2           =  .03305
% residual variation due to heterogeneity             I-squared_res  =  77.29%
Proportion of between-study variance explained        Adj R-squared  =  29.74%
Joint test for all covariates                         Model F(6,56)  =    3.69
With Knapp-Hartung modification                       Prob > F       =  0.0037
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
 Rev_Cluster5_RS |   .1839391   .0649115     2.83   0.006     .0539057    .3139725
            iif7 |   .1587146   .0712891     2.23   0.030     .0159053    .3015239
 Rev_Cluster3_FM |  -.0914364    .059603    -1.53   0.131    -.2108356    .0279627
Rev_Cluster12_CO |   .1239221   .0747094     1.66   0.103    -.0257389     .273583
 Rev_Cluster1_SS |  -.1313586   .0685005    -1.92   0.060    -.2685816    .0058645
             itb |  -.0333263   .0621844    -0.54   0.594    -.1578966     .091244
           _cons |   .2566069   .0794835     3.23   0.002     .0973823    .4158315
```

```
--------------------------------------------------------------------------------
```

Model PA_M1: controlling for control group cluster/IF use and theory-basedness (Long-term FU only)

```
. tabulate FU_Cat if Target_Beh==4


FU Category |      Freq.     Percent        Cum.
------------+-----------------------------------
      Short |         44       69.84       69.84
       Long |         19       30.16      100.00
------------+-----------------------------------
      Total |         63      100.00
```

Forward stepwise approach: Step 1

Empty model

```
. metareg ES if Target_Beh==4 & FU_Cat==1, wsse(_SE) knapphartung reml


Meta-regression                                         Number of obs  =      19
REML estimate of between-study variance                 tau2           =  .06294
% residual variation due to heterogeneity               I-squared_res  =  92.10%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       _cons |   .2347238   .0636521     3.69   0.002     .1009957    .3684519
------------------------------------------------------------------------------


.
```

Forward stepwise approach: Final Step

```
. metareg ES Rev_Cluster5_RS iif7 Rev_Cluster3_FM Rev_Cluster12_CO Rev_Cluster1_SS itb if
Target_Beh==4 & FU_Cat==1, wsse(_SE) kna

> pphartung reml


Meta-regression                                         Number of obs  =      19
REML estimate of between-study variance                 tau2           = .008418
% residual variation due to heterogeneity               I-squared_res  =  47.24%
```

```
Proportion of between-study variance explained        Adj R-squared  =  86.62%

Joint test for all covariates                         Model F(6,12)  =   11.13

With Knapp-Hartung modification                       Prob > F       =  0.0003

------------------------------------------------------------------------------

              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

-----------------+------------------------------------------------------------

 Rev_Cluster5_RS |   .3202426   .0735981     4.35   0.001     .1598862    .4805991

            iif7 |    .269583   .0795438     3.39   0.005     .0962721     .442894

 Rev_Cluster3_FM |  -.2357654   .0751998    -3.14   0.009    -.3996116   -.0719192

Rev_Cluster12_CO |   .3436455   .1243233     2.76   0.017     .0727682    .6145228

 Rev_Cluster1_SS |  -.1749275   .1035166    -1.69   0.117    -.4004708    .0506158

             itb |  -.1283822   .0947853    -1.35   0.201    -.3349015    .0781371

           _cons |   .3317866   .1200624     2.76   0.017      .070193    .5933802

------------------------------------------------------------------------------
```

Overall analysis across behaviour areas

META-ANALYSIS

```
. metan ES _SE if Filter_Overall==1, label(namevar=StudyID) sortby(StudyID) random effect(SMD)
astext(50) textsize(200)  force xlabel(-1, -0.5, 0, 0.5, 1) favours (Favours Control # Favours
Intervention)
```

Study	ES	[95% Conf.	Interval]	% Weight
An 2006	0.691	0.380	1.002	0.59
Anthonisen 2005	0.871	0.755	0.987	0.92
Armit 2008_ES	0.072	-0.538	0.682	0.27
Armit 2008_ES+P	0.480	-0.112	1.073	0.28
Armitage 2008	1.522	0.394	2.650	0.10
Azodi 2009	0.505	-0.056	1.067	0.30
Baker 2006	0.917	-0.647	2.481	0.05
Bernstein 2011	0.145	-0.212	0.501	0.52
Bock 2008	0.099	-0.216	0.414	0.59
Borrelli 2005	0.435	-0.491	1.361	0.14
Burke 2008	0.104	-0.160	0.368	0.67
Carey 2006_BMI	0.220	-0.420	0.861	0.25
Carey 2006_BMI+TLFB	0.028	-0.609	0.665	0.25
Carey 2006_EBMI	-0.056	-0.695	0.583	0.25
Carey 2006_EBMI+TLFB	-0.118	-0.755	0.519	0.25
Carey 2006_TLFB	-0.105	-0.739	0.530	0.26
Carpenter 2004_MA+NR	1.015	0.502	1.528	0.34
Carpenter 2004_SR+NR	0.829	0.306	1.353	0.34
Chang 2011	-0.055	-0.232	0.122	0.82
Chouinard 2005_IC	0.442	-0.316	1.199	0.19
Chouinard 2005_IC+FU	0.442	-0.316	1.199	0.19
Clark 2004	0.440	0.043	0.837	0.47
Cortes-Bordoy 2010	-0.082	-0.435	0.270	0.53
Crosby 2009	0.294	-0.005	0.593	0.61
Curry 2003	0.203	-0.062	0.468	0.67
Daeppen 2007	-0.007	-0.181	0.166	0.83
Debussche 2012	0.095	-0.126	0.315	0.75
Dent 2008_BI	-0.298	-0.699	0.102	0.46
Dent 2008_MI	-0.107	-0.516	0.301	0.45
Dermen 2011_ALC	0.253	-0.349	0.855	0.28
Dermen 2011_H&A	0.173	-0.434	0.779	0.27
Dermen 2011_HIV	0.114	-0.523	0.751	0.25
Di Loreto 2003	1.100	0.872	1.329	0.73
Dornelas 2006	0.528	-0.402	1.458	0.14
Eakin 2007	0.253	-0.026	0.531	0.64
Eakin 2010	0.073	-0.117	0.262	0.80
El-Mohandes 2011	0.440	0.120	0.761	0.58
Elley 2003	0.265	0.076	0.453	0.80
Ellingsen 2005	0.339	0.173	0.506	0.84
Emmen 2005	-0.186	-0.540	0.168	0.53
Eriksson 2009	0.354	-0.010	0.718	0.51
Feldman 2011	0.089	-0.286	0.464	0.50
Field 2009_BP	-0.025	-0.256	0.206	0.73
Field 2009_HP	0.143	-0.026	0.312	0.84
Field 2009_WP	0.037	-0.115	0.189	0.87
Fleming 2008	0.354	0.096	0.611	0.68
Fleming 2010	0.075	-0.050	0.199	0.91
Free 2011	0.465	0.351	0.579	0.93

Froelicher 2004	-0.000	-0.294	0.294	0.62
Giannuzzi 2008	0.200	0.131	0.269	0.98
Gilbert 2008	0.284	-0.020	0.589	0.60
Glasgow 2006	0.368	0.139	0.597	0.73
Glasgow 2009	0.235	-0.302	0.772	0.32
Golin 2012	0.081	-0.142	0.305	0.74
Gordon 2010a_3As	0.413	-0.260	1.085	0.23
Gordon 2010a_5As	0.463	-0.203	1.129	0.24
Gordon 2010b	0.585	0.319	0.851	0.67
Grandes 2009	0.032	-0.082	0.147	0.92
Groeneveld 2011	0.573	0.376	0.769	0.79
Guelinckx 2010	0.336	-0.092	0.765	0.43
Hall 2009_ECBT	0.411	-0.007	0.829	0.44
Hall 2009_ENRT+CBT	0.192	-0.224	0.607	0.45
Hardcastle 2008	0.148	-0.072	0.368	0.75
Harting 2006	0.159	-0.068	0.386	0.73
Hertogh 2010	0.010	-0.320	0.340	0.56
Hilberink 2011	0.459	-0.064	0.982	0.34
Holloway 2007_SEE	0.483	-0.003	0.968	0.37
Holloway 2007_SHB	0.487	-0.001	0.975	0.37
Horden 2009	0.158	-0.138	0.454	0.62
Hovell 2009	0.260	-0.061	0.582	0.58
Hyman 2007_Seq	0.178	-0.350	0.706	0.33
Hyman 2007_Sim	0.234	-0.289	0.756	0.34
Ingersoll 2005	0.232	-0.063	0.528	0.62
Joseph 2008	0.013	-0.549	0.575	0.30
Joseph 2011	0.305	0.043	0.568	0.67
Juarez 2006_MF	0.108	-1.132	1.348	0.08
Juarez 2006_MI	0.507	-0.783	1.798	0.08
Juarez 2006_MI+F	-0.227	-1.507	1.052	0.08
Juarez 2006_MI+MF	0.565	-0.706	1.835	0.08
Katz 2004	0.186	-0.129	0.500	0.59
Keogh 2011	0.345	-0.016	0.705	0.52
Kirk 2009_PA-P	0.264	-0.294	0.822	0.31
Kirk 2009_PA-W	0.417	-0.136	0.971	0.31
Koblin 2012	-0.103	-0.376	0.171	0.65
Koelewijn-van Loon 2	0.108	-0.142	0.358	0.69
Kolt 2007	0.457	0.148	0.766	0.59
Kotz 2009_CC+Nort	0.388	-0.414	1.190	0.18
Kotz 2009_HE+Nort	0.409	-0.391	1.209	0.18
Kulesza 2010_10	0.545	-0.003	1.093	0.32
Kulesza 2010_50	0.227	-0.324	0.778	0.31
Kuller 2012	0.133	-0.056	0.321	0.80
Lacasse 2008	-0.096	-0.514	0.322	0.44
Lane 2008	0.183	-0.158	0.523	0.55
Langston 2010	0.256	-0.144	0.655	0.47
Lau Barraco 2008_EDU	0.138	-0.330	0.606	0.39
Lau Barraco 2008_EEC	0.218	-0.175	0.611	0.47
Lawrence 2003_SHM	0.464	-0.493	1.421	0.13
Lawrence 2003_SHM+IC	0.365	-0.613	1.344	0.13
Lawton 2008	0.156	0.019	0.292	0.89
Lewis 2007_GNSF	0.389	-0.009	0.787	0.47
Lewis 2007_GSF	0.457	0.054	0.860	0.46
Lindahl 2009	0.427	0.043	0.811	0.49
Lock 2006	0.152	-0.197	0.501	0.53
Lorig 2006	0.057	-0.084	0.198	0.88
Lorig 2010_SM	0.041	-0.204	0.287	0.70
Lorig 2010_SM+MR	-0.001	-0.252	0.251	0.69
Luoto 2011	-0.190	-0.403	0.024	0.76
Malchodi 2003	0.080	-0.354	0.515	0.42
Mansergh 2010	-0.072	-0.227	0.083	0.86
Marcus 2007_PB	0.523	0.135	0.910	0.48
Marcus 2007_TB	0.153	-0.230	0.536	0.49

Mastroleo 2010_CPA	0.356	-0.022	0.733	0.49
Mastroleo 2010_EEA	0.309	-0.074	0.693	0.49
McBride 2004_PAI	0.220	-0.261	0.700	0.38
McBride 2004_WOI	0.193	-0.291	0.676	0.37
McClure 2005	0.037	-0.396	0.471	0.43
McMurdo 2010_BCI	0.401	-0.015	0.816	0.45
McMurdo 2010_BCI+P	0.223	-0.189	0.636	0.45
Mello 2008	0.224	-0.009	0.457	0.72
Mohiuddin 2007	0.886	0.449	1.323	0.42
Molyneux 2003_Cou	-0.321	-1.193	0.550	0.15
Molyneux 2003_Cou+NR	0.223	-0.475	0.921	0.22
Moore 2006	0.072	-0.176	0.320	0.70
Moore 2010	0.160	0.003	0.316	0.86
Morey 2009	0.315	0.159	0.471	0.86
Muniz 2010	0.132	-0.062	0.325	0.79
Neighbors 2006	0.087	-0.202	0.376	0.63
Neumann 2006	0.121	-0.051	0.294	0.83
Neuner 2009	0.149	-0.053	0.350	0.78
Nies 2003	0.053	-0.276	0.381	0.56
Nijamkin 2012	0.488	0.143	0.833	0.54
Nollen 2007	0.147	-0.117	0.410	0.67
O'Connor 2007	0.929	0.256	1.601	0.23
Ockene 2009	-0.037	-0.130	0.055	0.95
Ondersma 2012_CD-5As	0.960	-0.285	2.204	0.08
Ondersma 2012_CD-5As	0.568	-0.636	1.771	0.09
Ondersma 2012_CM-Lit	-0.382	-1.819	1.055	0.06
Osborn 2010	0.411	-0.005	0.827	0.45
Patrick 2011	0.270	0.046	0.494	0.74
Pbert 2004	0.575	0.228	0.921	0.54
Penn 2009	-0.047	-0.492	0.398	0.41
Petersen 2007b	0.098	-0.067	0.262	0.85
Pinto 2011	0.442	-0.065	0.949	0.35
Pisinger 2009_GC	0.145	-0.930	1.219	0.11
Pisinger 2009_IC	-0.042	-1.190	1.106	0.09
Prestwich 2009_II	0.067	-0.652	0.786	0.21
Prestwich 2009_II+SM	0.441	-0.285	1.166	0.21
Prestwich 2009_SMS	0.160	-0.554	0.874	0.21
Rabius 2004	0.310	0.197	0.423	0.93
Ratner 2004	-0.046	-0.413	0.321	0.51
Reid 2008	0.033	-0.635	0.702	0.24
Reid 2011	0.151	-0.180	0.481	0.56
Rigotti 2006	0.209	-0.336	0.754	0.32
Rodriguez-Aralejo 20	0.525	0.062	0.987	0.39
Ruger 2008_CS	-0.136	-0.716	0.444	0.29
Ruger 2008_RQ	0.683	-0.032	1.398	0.21
Sallit 2009	0.629	0.271	0.987	0.52
Schumann 2008	-0.023	-0.246	0.201	0.74
Schunmann 2006	0.077	-0.230	0.384	0.60
Segan 2011	0.022	-0.185	0.229	0.77
Simmons 2007	-0.147	-0.725	0.430	0.29
Smeulders 2009	0.058	-0.165	0.282	0.74
Stolley 2009	0.189	-0.102	0.481	0.62
Stotts 2009_MI+USF	0.338	-0.178	0.855	0.34
Stotts 2009_USF	0.169	-0.362	0.699	0.33
Sutton 2007	0.037	-0.126	0.201	0.85
Swartz 2006	0.539	0.092	0.987	0.41
Tappin 2005	0.027	-0.343	0.397	0.50
Thomsen 2010	0.240	-0.428	0.908	0.24
Thoolen 2009	0.273	-0.023	0.569	0.62
Tingstrom 2006	0.000	-0.297	0.297	0.61
Toll 2010	0.067	-0.062	0.196	0.90
Toobert 2010	0.081	-0.158	0.319	0.71
Toobert 2011	0.115	-0.121	0.351	0.72

Tross 2008	0.420	0.217	0.623	0.78
Unrod 2007	0.315	-0.035	0.664	0.53
VHSG	0.528	0.029	1.028	0.36
Vale 2003	0.383	0.102	0.663	0.64
Vermunt 2011	0.204	0.062	0.346	0.88
Vestfold HSG	0.477	0.158	0.796	0.58
Vidrine 2012	0.795	0.419	1.171	0.50
Walters 2009_MI	0.122	-0.385	0.630	0.35
Walters 2009_MI+F	0.268	-0.233	0.769	0.36
Walters 2009_WEB	0.066	-0.447	0.579	0.34
White 2012	0.344	-0.072	0.760	0.45
Willemsen 2006	-0.007	-0.317	0.304	0.59
Wolitski 2005	0.137	-0.062	0.336	0.79
Wood 2008_Cor	0.515	0.361	0.670	0.86
Wood 2008_HR	0.536	0.388	0.684	0.87
Woodall 2007	0.328	0.097	0.559	0.73
Wright 2011_NES	0.260	-0.178	0.697	0.42
Wright 2011_TDF	0.260	-0.178	0.697	0.42
de Vries 2006	1.010	0.082	1.938	0.14
ter Bogt 2011	-0.061	-0.310	0.188	0.70
van Sluijis 2005	-0.006	-0.262	0.251	0.68
van Wier 2009_Int	0.064	-0.216	0.343	0.64
van Wier 2009_Pho	0.188	-0.075	0.451	0.67
D+L pooled ES	0.225	0.187	0.262	100.00

Heterogeneity chi-squared = 576.75 (d.f. = 196) p = 0.000
I-squared (variation in ES attributable to heterogeneity) = 66.0%
Estimate of between-study variance Tau-squared = 0.0353

Test of ES=0 : z= 11.87 p = 0.000

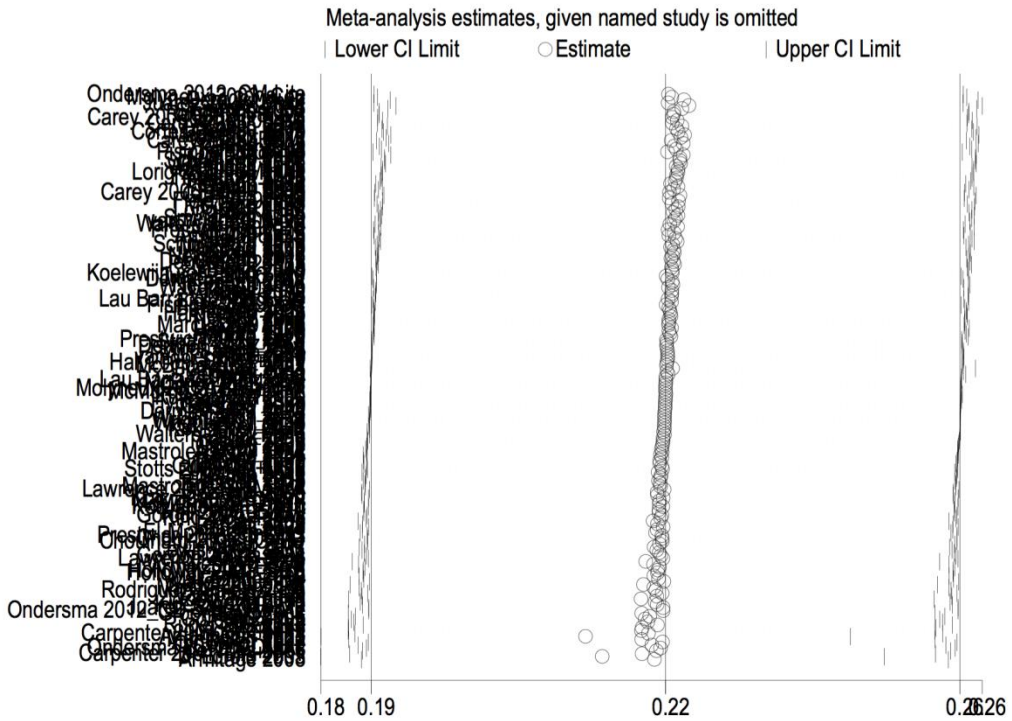
Outliers

```
. metaninf ES _SE if Filter_Overall==1, label(namevar=StudyID) random

------------------------------------------------------------------------------
 Study omitted      |   Estimate       [95%  Conf.  Interval]
--------------------+---------------------------------------------------------
 Ondersma 2012_CM-Lite|.2249596       .1878618     .26205739
 Molyneux 2003_Cou  |   .22540493      .18830979    .26250008
 Dent 2008_BI       |   .22690547      .18987437    .26393658
 Juarez 2006_MI+F   |   .22493634      .18782917    .26204351
 Luoto 2011         |   .2275271       .19059807    .26445612
 Emmen 2005         |   .22668056      .18958932    .2637718
 Simmons 2007       |   .22566265      .18853584    .26278946
 Ruger 2008_CS      |   .22562389      .18849446    .26275334
 Carey 2006_EBMI+TLFB| .22545025      .18831955    .26258096
 Dent 2008_MI       |   .22607403      .18893006    .26321799
 Carey 2006_TLFB    |   .22542284      .18828957    .26255614
 Koblin 2012        |   .22667377      .18954343    .26380411
 Lacasse 2008       |   .22598915      .18884067    .26313761
 Cortes-Bordoy 2010|   .22619215      .18903555    .26334876
 Mansergh 2010      |   .22701406      .18996572    .2640624
 ter Bogt 2011      |   .22654216      .18937843    .26370591
 Carey 2006_EBMI    |   .22529681      .18815586    .26243779
 Chang 2011         |   .22682253      .18969475    .26395032
 Penn 2009          |   .22570273      .18853962    .26286584
 Ratner 2004        |   .22595716      .18878379    .26313052
 Pisinger 2009_IC   |   .22484423      .18772548    .26196298
 Ockene 2009        |   .22683179      .18994857    .26371503
 Field 2009_BP      |   .22639154      .18919416    .26358894
 Schumann 2008      |   .22640547      .18920565    .2636053
 Daeppen 2007       |   .22649799      .18928438    .2637116
 Willemsen 2006     |   .22596203      .18876095    .26316309
 van Sluijis 2005   |   .22616242      .18894975    .26337507
 Lorig 2010_SM+MR   |   .22614811      .18893087    .26336536
 Froelicher 2004    |   .22598505      .18877684    .26319328
 Tingstrom 2006     |   .22597507      .1887673     .26318282
 Hertogh 2010       |   .22580348      .18859905    .26300791
 Joseph 2008        |   .22523883      .18807949    .26239815
 Segan 2011         |   .22616693      .18891853    .26341534
 Tappin 2005        |   .22559857      .1883987     .26279846
 Carey 2006_BMI+TLFB|  .22509439      .1879427     .2622461
 Grandes 2009       |   .22640552      .18910204    .26370898
 Reid 2008          |   .22504713      .1878984     .26219586
 Field 2009_WP      |   .22625099      .18895786    .26354411
 McClure 2005       |   .22539644      .18820985    .26258302
 Sutton 2007        |   .22620994      .18892373    .26349616
 Lorig 2010_SM      |   .22589841      .18864962    .26314721
 Nies 2003          |   .22557995      .18835907    .26280084
 Lorig 2006         |   .2261371       .1887987     .26347551
 Smeulders 2009     |   .2258552       .18858375    .26312664
 van Wier 2009_Int  |   .22565177      .18840672    .26289681
 Walters 2009_WEB   |   .22514653      .18797211    .26232097
 Toll 2010          |   .2261057       .18873087    .26348054
 Prestwich 2009_II  |   .22492951      .18778332    .26207569
 Moore 2006         |   .22568682      .18842165    .26295197
 Armit 2008_ES      |   .22501163      .18785243    .26217082
 Eakin 2010         |   .22586024      .18855314    .26316735
 Fleming 2010       |   .22606061      .18866225    .26345897
 Schunmann 2006     |   .22549947      .18826188    .26273707
 Malchodi 2003      |   .22521709      .18802287    .2624113
 Toobert 2010       |   .22565925      .18838358    .26293492
 Golin 2012         |   .22569533      .18840897    .26298168
 Neighbors 2006     |   .22548492      .18823566    .26273417
```

Feldman 2011	.22528453	.18807074	.26249835
Debussche 2012	.22561188	.18831551	.26290825
Petersen 2007b	.22574982	.1883902	.26310945
Bock 2008	.22535215	.18811209	.2625922
Burke 2008	.22543967	.18817052	.26270881
Koelewijn-van Loon 2010	.22544526	.18816561	.26272491
Juarez 2006_MF	.22469075	.18757005	.26181144
Dermen 2011_HIV	.22488098	.18772262	.26203933
Toobert 2011	.22542982	.18813661	.26272303
Neumann 2006	.22553939	.188173	.26290578
Walters 2009_MI	.22496228	.18778104	.26214352
Muniz 2010	.2254052	.18806271	.2627477
Kuller 2012	.22540946	.18805993	.26275903
Wolitski 2005	.22535393	.18801509	.26269275
Lau Barraco 2008_EDU	.22494319	.18775137	.262135
Field 2009_HP	.225375	.18798995	.26276004
Pisinger 2009_GC	.22468148	.18755502	.26180795
Bernstein 2011	.22503594	.18780637	.2622655
Nollen 2007	.22515911	.18787797	.26244026
Hardcastle 2008	.22522528	.18790637	.26254418
Neuner 2009	.22525762	.18791775	.2625975
Reid 2011	.22503605	.1877939	.26227823
Lock 2006	.22500814	.18777438	.2622419
Marcus 2007_TB	.22496399	.18774429	.2621837
Lawton 2008	.22536494	.18789442	.26283547
Horden 2009	.22503774	.18777585	.26229966
Harting 2006	.22513837	.18782383	.2624529
Moore 2010	.22527392	.1878541	.26269373
Prestwich 2009_SMS	.22473744	.18758674	.26188815
Stotts 2009_USF	.22478853	.18760972	.26196733
Dermen 2011_H&A	.22474433	.18757932	.26190937
Hyman 2007_Seq	.22475961	.18758005	.26193917
Lane 2008	.2248507	.18761064	.26209077
Katz 2004	.22485572	.1876018	.26210964
van Wier 2009_Pho	.22488382	.18759634	.2621713
Stolley 2009	.22485077	.18758324	.26211831
Hall 2009_ENRT+CBT	.2247598	.1875497	.26196989
McBride 2004_WOI	.22472587	.18753557	.26191616
Giannuzzi 2008	.22546846	.18734381	.26359311
Curry 2003	.22478101	.18749455	.26206747
Vermunt 2011	.2249295	.18745947	.26239952
Rigotti 2006	.224655	.18747853	.26183149
Lau Barraco 2008_EEC	.2246446	.18742621	.26186299
McBride 2004_PAI	.22462562	.18743451	.26181671
Carey 2006_BMI	.22461189	.18745157	.26177222
Molyneux 2003_Cou+NRT	.22460298	.18745002	.26175594
McMurdo 2010_BCI+P	.22461762	.18740647	.26182878
Mello 2008	.22465812	.1873444	.26197183
Kulesza 2010_50	.22459577	.18742059	.26177093
Ingersoll 2005	.22458136	.18731666	.26184607
Hyman 2007_Sim	.22457416	.18739322	.26175508
Glasgow 2009	.22457169	.18739386	.26174954
Thomsen 2010	.22456354	.18740717	.26171991
Dermen 2011_ALC	.22452381	.1873582	.26168942
Eakin 2007	.22444953	.18717574	.26172334
Langston 2010	.22446656	.18725213	.26168099
Wright 2011_NES	.22446121	.18725954	.26166287
Wright 2011_TDF	.22446121	.18725954	.26166287
Hovell 2009	.22441636	.18716876	.26166394
Kirk 2009_PA-P	.22448179	.18730898	.26165459
Elley 2003	.22435196	.18699311	.26171082
Walters 2009_MI+F	.22444962	.18726513	.26163408
Patrick 2011	.22431114	.18699647	.2616258

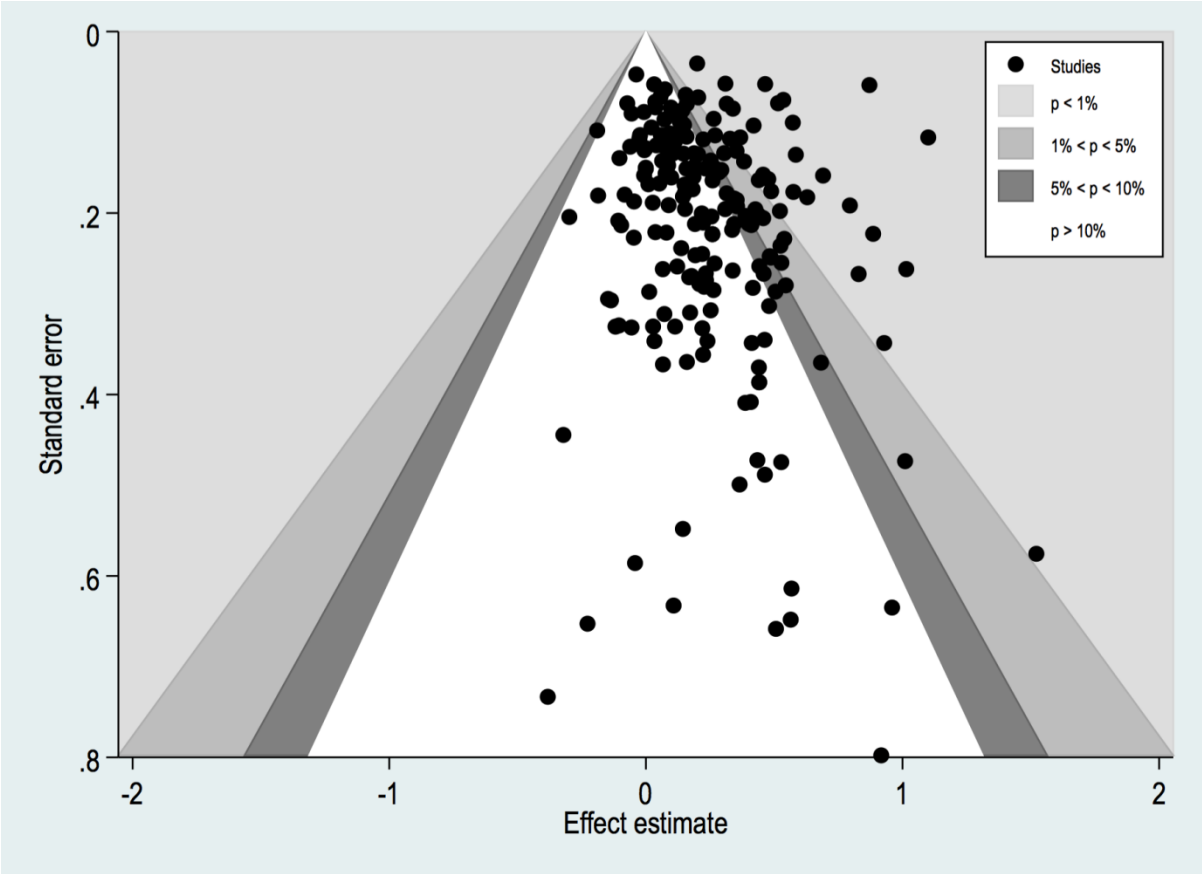
Thoolen 2009	.22432514	.18706551	.26158476
Gilbert 2008	.22425991	.18700677	.26151305
Crosby 2009	.22419387	.18693987	.26144788
Joseph 2011	.22408104	.18680826	.26135382
Mastroleo 2010_EEA	.22419529	.18698116	.2614094
Rabius 2004	.22397235	.1864713	.26147342
Unrod 2007	.22412743	.18690145	.2613534
Morey 2009	.22390053	.18652265	.26127842
Woodall 2007	.2238725	.18658744	.26115757
Guelinckx 2010	.22411893	.18692295	.26131493
Stotts 2009_MI+USF	.22420873	.18703339	.26138407
Ellingsen 2005	.22368024	.18634345	.26101705
White 2012	.22406821	.18687002	.26126641
Keogh 2011	.22398132	.1867661	.26119655
Fleming 2008	.22372995	.18647422	.26098567
Eriksson 2009	.22393519	.18672337	.26114699
Mastroleo 2010_CPA	.22395171	.18674463	.26115879
Lawrence 2003_SHM+ICI	.22441708	.18728881	.26154533
Glasgow 2006	.22355393	.18629153	.26081634
Vale 2003	.22357802	.18634711	.26080891
Kotz 2009_CC+Nort	.2243055	.18716846	.26144254
Lewis 2007_GNSF	.22382401	.18663101	.26101699
McMurdo 2010_BCI	.22380327	.18661736	.26098919
Kotz 2009_HE+Nort	.22426522	.1871295	.26140094
Osborn 2010	.22375572	.18657264	.26093879
Hall 2009_ECBT	.22375977	.18657717	.26094237
Gordon 2010a_3As	.22415091	.18700536	.26129648
Kirk 2009_PA-W	.22398977	.18683119	.26114836
Tross 2008	.223042	.18581951	.26026449
Lindahl 2009	.22359978	.18641493	.26078463
Borrelli 2005	.22430035	.18717311	.26142761
Clark 2004	.22356808	.18639018	.26074597
El-Mohandes 2011	.22332768	.18613672	.26051864
Prestwich 2009_II+SMS	.22414072	.18700244	.26127899
Chouinard 2005_IC	.22416866	.18703277	.26130453
Chouinard 2005_IC+FU	.22416866	.18703277	.26130453
Pinto 2011	.22382255	.18666217	.26098293
Kolt 2007	.22317919	.18599613	.26036227
Lewis 2007_GSF	.22350031	.18632931	.26067132
Hilberink 2011	.22379363	.18663883	.26094842
Gordon 2010a_5As	.22402023	.18687993	.26116049
Lawrence 2003_SHM	.22427718	.18715301	.26140136
Free 2011	.22210082	.18512109	.25908056
Vestfold HSG	.22308959	.18591928	.26025987
Armit 2008_ES+P	.22385953	.18671583	.26100323
Holloway 2007_SEE	.22361895	.18646562	.26077232
Holloway 2007_SHB	.2236097	.18645781	.26076159
Nijamkin 2012	.22313003	.185967	.26029307
Azodi 2009	.22372083	.18657948	.2608622
Juarez 2006_MI	.22437453	.18726048	.26148859
Wood 2008_Cor	.22182742	.1848544	.25880045
Marcus 2007_PB	.22311731	.18597223	.2602624
Rodriguez-Aralejo 2003	.22338316	.18624075	.26052555
Dornelas 2006	.22416963	.18704925	.26128998
VHSG	.22348234	.18634288	.26062182
Wood 2008_HR	.22152488	.18465079	.25839895
Swartz 2006	.22326919	.18613163	.26040676
Kulesza 2010_10	.22355644	.18642378	.26068911
Juarez 2006_MI+MF	.22432102	.18720932	.26143274
Ondersma 2012_CD-5As+CM-Lite	.22428961	.18717729	.26140192
Groeneveld 2011	.22158541	.18462914	.25854167
Pbert 2004	.22262852	.18551916	.25973785
Gordon 2010b	.22204548	.18499064	.25910032

```
 Sallit 2009        |   .22237825      .18530448    .25945204
 Ruger 2008_RQ      |   .22358616      .18648541    .26068693
 An 2006            |   .22164012      .18466148    .25861877
 Vidrine 2012       |   .221558        .1846142     .25850183
 Carpenter 2004_SR+NRT|.2224526       .18543303    .25947216
 Anthonisen 2005    |   .21452999      .18119091    .24786907
 Mohiuddin 2007     |   .22161373      .18468714    .25854033
 Baker 2006         |   .22420765      .18711601    .26129931
 O'Connor 2007      |   .22285555      .18583089    .25988021
 Ondersma 2012_CD-5As| .22396365       .18688391    .2610434
 de Vries 2006      |   .22344908      .18640056    .2604976
 Carpenter 2004_MA+NRT|.2216706        .18477167    .25856954
 Di Loreto 2003     |   .21664269      .18114609    .2521393
 Armitage 2008      |   .22321703      .18624727    .26018676
-------------------+-------------------------------------------------------------
 Combined           |   .2245708       .18749699    .26164462
------------------------------------------------------------------------------
```



Publication bias

```
. confunnel ES _SE        if Filter_Overall==1
```




```
. metabias ES _SE         if Filter_Overall==1, egger graph


Note: data input format theta se_theta assumed.


Egger's test for small-study effects:

Regress standard normal deviate of intervention

effect estimate against its standard error


Number of studies =  197                                  Root MSE      =    1.71

------------------------------------------------------------------------------

     Std_Eff |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

-------------+----------------------------------------------------------------

       slope |   .1699208   .0307439     5.53   0.000     .1092876     .230554

        bias |   .3423395   .2294186     1.49   0.137    -.1101208    .7947999

------------------------------------------------------------------------------
```

```
Test of H0: no small-study effects          P = 0.137

. metatrim ES _SE         if Filter_Overall==1, reffect funnel

Note: default data input format (theta, se_theta) assumed.

Meta-analysis

       |  Pooled      95% CI         Asymptotic      No. of
Method |     Est   Lower   Upper  z_value  p_value   studies
-------+-----------------------------------------------------
Fixed  |   0.209   0.190   0.228   21.869    0.000    197
Random |   0.225   0.187   0.262   11.872    0.000

Test for heterogeneity: Q= 576.749 on 196 degrees of freedom (p= 0.000)
Moment-based estimate of between studies variance =  0.035

Trimming estimator: Linear
Meta-analysis type: Random-effects model

iteration |  estimate    Tn    # to trim     diff
----------+-------------------------------------
    1     |    0.225  10144         4       19503
    2     |    0.211  10684         9        1080
    3     |    0.195  11427        17        1486
    4     |    0.174  12338        26        1822
    5     |    0.161  12889        32        1102
    6     |    0.151  13321        36         864
    7     |    0.139  13839        42        1036
    8     |    0.134  14027        44         376
    9     |    0.133  14052        44          50
   10     |    0.133  14052        44           0

Warning: iterative algorithm did not converge
```

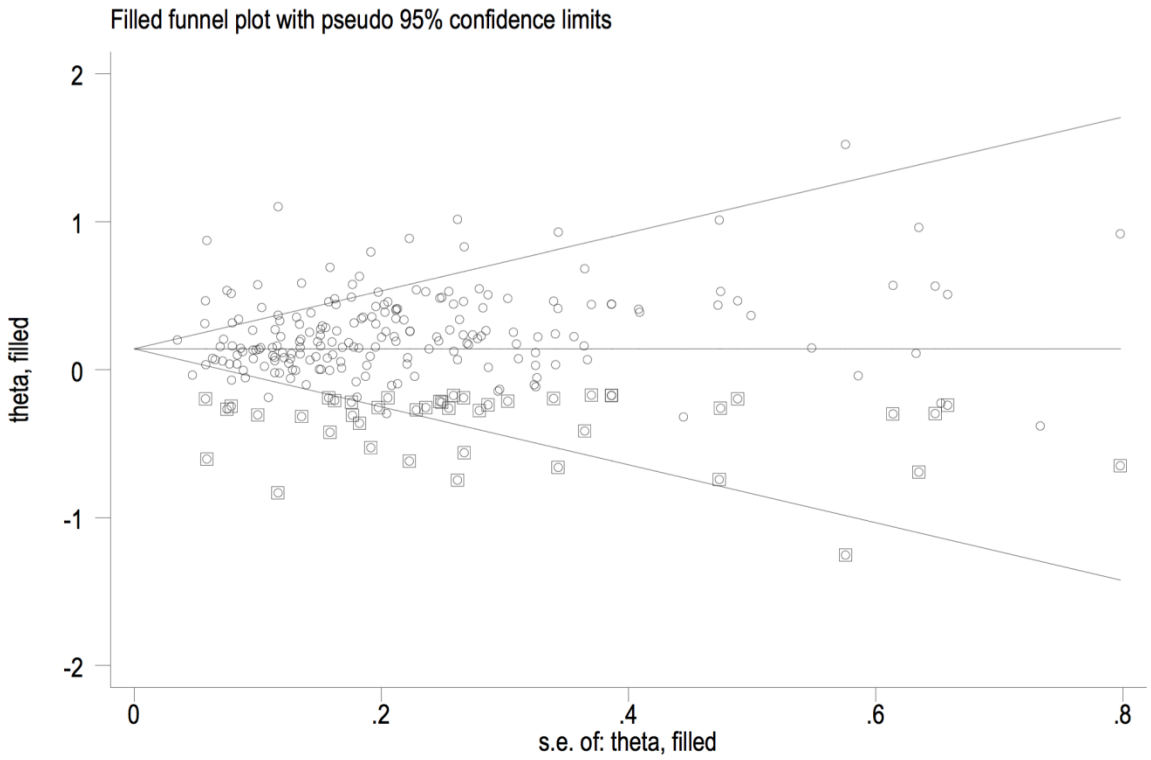
Filled

Meta-analysis

Method	Pooled Est	95% CI Lower	Upper	Asymptotic z_value	p_value	No. of studies
Fixed	0.133	0.115	0.150	14.932	0.000	241
Random	0.141	0.098	0.184	6.473	0.000	

Test for heterogeneity: Q= 1111.226 on 240 degrees of freedom (p= 0.000)

Moment-based estimate of between studies variance = 0.070



Univariate meta-regression – Controlling for BCT in control group using revised method

Individual BCTs

```
Revised method involved creating a new dummy variable for each BCT where, for example:

BCT1[interv]=0 & BCT1[control]=0, then Rev_BCT1 was coded 0
BCT1 [interv]=1 & BCT1 [control]=0, then Rev_ BCT1 was coded 1
BCT1 [interv]=1 & BCT1 [control]=1, then Rev_ BCT1was coded 0
BCT1 [interv]=0 & BCT1 [control]=1, then Rev_ BCT1 was coded 0
-------------------------------------------------------------------------------------------------



. tabulate Rev_ibct1 if Filter_Overall==1

  Rev_ibct1 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        189       95.94       95.94
          1 |          8        4.06      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct1 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                         Number of obs  =     197
REML estimate of between-study variance                 tau2           =   .0303
% residual variation due to heterogeneity               I-squared_res  =  65.83%
Proportion of between-study variance explained          Adj R-squared  =   2.39%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
   Rev_ibct1 |   .1473549   .0774624     1.90   0.059    -.0054166    .3001265
       _cons |    .214753   .0186168    11.54   0.000      .178037     .251469
------------------------------------------------------------------------------

. tabulate Rev_ibct2 if Filter_Overall==1

  Rev_ibct2 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        194       98.48       98.48
          1 |          3        1.52      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct2 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                         Number of obs  =     197
REML estimate of between-study variance                 tau2           =  .03106
% residual variation due to heterogeneity               I-squared_res  =  66.08%
Proportion of between-study variance explained          Adj R-squared  =  -0.04%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
   Rev_ibct2 |   .1234236   .1493766     0.83   0.410    -.1711775    .4180247
       _cons |   .2216114   .0183409    12.08   0.000     .1854394    .2577833
------------------------------------------------------------------------------

. tabulate Rev_ibct3 if Filter_Overall==1
```

```
  Rev_ibct3 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         64       32.49       32.49
          1 |        133       67.51      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct3 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                         Number of obs  =     197
REML estimate of between-study variance                 tau2           =  .03122
% residual variation due to heterogeneity               I-squared_res  =  66.00%
Proportion of between-study variance explained          Adj R-squared  =  -0.57%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
   Rev_ibct3 |    .014396    .039315     0.37   0.715    -.0631413    .0919332
       _cons |   .2136273   .0325866     6.56   0.000     .1493599    .2778947
------------------------------------------------------------------------------

. tabulate Rev_ibct4 if Filter_Overall==1

  Rev_ibct4 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        162       82.23       82.23
          1 |         35       17.77      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct4 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                         Number of obs  =     197
REML estimate of between-study variance                 tau2           =  .02895
% residual variation due to heterogeneity               I-squared_res  =  61.00%
Proportion of between-study variance explained          Adj R-squared  =   6.74%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
   Rev_ibct4 |   .1221948   .0501931     2.43   0.016     .0232038    .2211858
       _cons |   .2047739   .0193214    10.60   0.000     .1666681    .2428796
------------------------------------------------------------------------------

. tabulate Rev_ibct5 if Filter_Overall==1

  Rev_ibct5 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        176       89.34       89.34
          1 |         21       10.66      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct5 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                         Number of obs  =     197
REML estimate of between-study variance                 tau2           =  .03138
% residual variation due to heterogeneity               I-squared_res  =  66.19%
Proportion of between-study variance explained          Adj R-squared  =  -1.08%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
```

```
-------------+----------------------------------------------------------------
   Rev_ibct5 |   .0296276   .0562975     0.53   0.599    -.0814027    .1406578
       _cons |   .2200212   .0194569    11.31   0.000     .1816483    .2583941
------------------------------------------------------------------------------

. tabulate Rev_ibct6 if Filter_Overall==1

  Rev_ibct6 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        196       99.49       99.49
          1 |          1        0.51      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct7 if Filter_Overall==1

  Rev_ibct7 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        197      100.00      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct8 if Filter_Overall==1

  Rev_ibct8 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        138       70.05       70.05
          1 |         59       29.95      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct8 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                     Number of obs  =     197
REML estimate of between-study variance             tau2           =  .03126
% residual variation due to heterogeneity           I-squared_res  =  66.01%
Proportion of between-study variance explained      Adj R-squared  =  -0.69%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
   Rev_ibct8 |  -.0261348   .0399773    -0.65   0.514    -.1049782    .0527085
       _cons |   .2312452   .0217248    10.64   0.000     .1883994     .274091
------------------------------------------------------------------------------

. tabulate Rev_ibct9 if Filter_Overall==1

  Rev_ibct9 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        182       92.39       92.39
          1 |         15        7.61      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct9 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                     Number of obs  =     197
REML estimate of between-study variance             tau2           =  .03114
% residual variation due to heterogeneity           I-squared_res  =  65.80%
Proportion of between-study variance explained      Adj R-squared  =  -0.30%
With Knapp-Hartung modification
```

```
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
   Rev_ibct9 |   .0527912    .069996     0.75   0.452    -.0852551    .1908375
       _cons |   .2196369   .0189204    11.61   0.000      .182322    .2569519
------------------------------------------------------------------------------

. tabulate Rev_ibct10 if Filter_Overall==1

 Rev_ibct10 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        165       83.76       83.76
          1 |         32       16.24      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct10 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                         Number of obs  =     197
REML estimate of between-study variance                 tau2           =  .03106
% residual variation due to heterogeneity               I-squared_res  =  65.77%
Proportion of between-study variance explained          Adj R-squared  =  -0.04%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  Rev_ibct10 |  -.0393718   .0468884    -0.84   0.402    -.1318452    .0531016
       _cons |   .2307511   .0201609    11.45   0.000     .1909897    .2705126
------------------------------------------------------------------------------

. tabulate Rev_ibct11 if Filter_Overall==1

 Rev_ibct11 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        192       97.46       97.46
          1 |          5        2.54      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct11 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                         Number of obs  =     197
REML estimate of between-study variance                 tau2           =  .03132
% residual variation due to heterogeneity               I-squared_res  =  66.17%
Proportion of between-study variance explained          Adj R-squared  =  -0.89%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  Rev_ibct11 |  -.0247743   .1082217    -0.23   0.819    -.2382095    .1886609
       _cons |   .2242697    .018521    12.11   0.000     .1877425     .260797
------------------------------------------------------------------------------

. tabulate Rev_ibct12 if Filter_Overall==1

 Rev_ibct12 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        195       98.98       98.98
          1 |          2        1.02      100.00
------------+-----------------------------------
      Total |        197      100.00
```

```
. tabulate Rev_ibct13 if Filter_Overall==1

 Rev_ibct13 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        195       98.98       98.98
          1 |          2        1.02      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct14 if Filter_Overall==1

 Rev_ibct14 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        188       95.43       95.43
          1 |          9        4.57      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct14 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =     197
REML estimate of between-study variance               tau2           =  .03072
% residual variation due to heterogeneity             I-squared_res  =  65.94%
Proportion of between-study variance explained        Adj R-squared  =   1.04%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  Rev_ibct14 |  -.2175191   .1339671    -1.62   0.106    -.4817296    .0466915
       _cons |   .2274459   .0183159    12.42   0.000     .1913232    .2635687
------------------------------------------------------------------------------

. tabulate Rev_ibct15 if Filter_Overall==1

 Rev_ibct15 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        192       97.46       97.46
          1 |          5        2.54      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct15 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =     197
REML estimate of between-study variance               tau2           =  .03126
% residual variation due to heterogeneity             I-squared_res  =  66.15%
Proportion of between-study variance explained        Adj R-squared  =  -0.71%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  Rev_ibct15 |   .0686156   .1105839     0.62   0.536    -.1494784    .2867097
       _cons |   .2216086   .0184986    11.98   0.000     .1851255    .2580916
------------------------------------------------------------------------------

. tabulate Rev_ibct16 if Filter_Overall==1

 Rev_ibct16 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        197      100.00      100.00
------------+-----------------------------------
      Total |        197      100.00
```

```
. tabulate Rev_ibct17 if Filter_Overall==1

 Rev_ibct17 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        197      100.00      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct18 if Filter_Overall==1

 Rev_ibct18 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        197      100.00      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct19 if Filter_Overall==1

 Rev_ibct19 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        197      100.00      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct20 if Filter_Overall==1

 Rev_ibct20 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        197      100.00      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct21 if Filter_Overall==1

 Rev_ibct21 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        197      100.00      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct22 if Filter_Overall==1

 Rev_ibct22 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        197      100.00      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct23 if Filter_Overall==1

 Rev_ibct23 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        181       91.88       91.88
          1 |         16        8.12      100.00
------------+-----------------------------------
```

```
      Total |        197      100.00

. metareg ES Rev_ibct23 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                         Number of obs  =     197
REML estimate of between-study variance                 tau2           =  .03133
% residual variation due to heterogeneity               I-squared_res  =  66.18%
Proportion of between-study variance explained          Adj R-squared  =  -0.92%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  Rev_ibct23 |  -.0268912   .0594289    -0.45   0.651     -.144097    .0903147
       _cons |    .226381   .0192945    11.73   0.000     .1883284    .2644336
------------------------------------------------------------------------------

. tabulate Rev_ibct24 if Filter_Overall==1

 Rev_ibct24 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        197      100.00      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct25 if Filter_Overall==1

 Rev_ibct25 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        182       92.39       92.39
          1 |         15        7.61      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct25 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                         Number of obs  =     197
REML estimate of between-study variance                 tau2           =  .03105
% residual variation due to heterogeneity               I-squared_res  =  65.54%
Proportion of between-study variance explained          Adj R-squared  =  -0.01%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  Rev_ibct25 |   .0393584   .0675911     0.58   0.561     -.093945    .1726619
       _cons |    .220372    .018962    11.62   0.000      .182975    .2577689
------------------------------------------------------------------------------

. tabulate Rev_ibct26 if Filter_Overall==1

 Rev_ibct26 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        197      100.00      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct27 if Filter_Overall==1

 Rev_ibct27 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        197      100.00      100.00
------------+-----------------------------------
```

```
      Total |        197      100.00


. tabulate Rev_ibct28 if Filter_Overall==1

 Rev_ibct28 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        192       97.46       97.46
          1 |          5        2.54      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct28 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =     197
REML estimate of between-study variance               tau2           =  .03061
% residual variation due to heterogeneity             I-squared_res  =  64.91%
Proportion of between-study variance explained        Adj R-squared  =   1.39%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  Rev_ibct28 |    .101132   .0982782     1.03   0.305    -.0926927    .2949567
       _cons |   .2197843   .0184531    11.91   0.000     .1833911    .2561775
------------------------------------------------------------------------------

. tabulate Rev_ibct29 if Filter_Overall==1

 Rev_ibct29 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        188       95.43       95.43
          1 |          9        4.57      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct29 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =     197
REML estimate of between-study variance               tau2           =  .02922
% residual variation due to heterogeneity             I-squared_res  =  64.91%
Proportion of between-study variance explained        Adj R-squared  =   5.87%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  Rev_ibct29 |   .2176024   .0841559     2.59   0.010     .0516298     .383575
       _cons |   .2126464   .0183198    11.61   0.000     .1765161    .2487767
------------------------------------------------------------------------------

. tabulate Rev_ibct30 if Filter_Overall==1

 Rev_ibct30 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        195       98.98       98.98
          1 |          2        1.02      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct31 if Filter_Overall==1

 Rev_ibct31 |      Freq.     Percent        Cum.
------------+-----------------------------------
```

```
          0 |        194       98.48       98.48
          1 |          3        1.52      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct31 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =     197
REML estimate of between-study variance               tau2           =  .03043
% residual variation due to heterogeneity             I-squared_res  =  64.90%
Proportion of between-study variance explained        Adj R-squared  =   1.97%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  Rev_ibct31 |   .1962476    .130177     1.51   0.133    -.0604881    .4529832
       _cons |   .2194325   .0182745    12.01   0.000     .1833914    .2554736
------------------------------------------------------------------------------

. tabulate Rev_ibct32 if Filter_Overall==1

 Rev_ibct32 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        195       98.98       98.98
          1 |          2        1.02      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct33 if Filter_Overall==1

 Rev_ibct33 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        196       99.49       99.49
          1 |          1        0.51      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct34 if Filter_Overall==1

 Rev_ibct34 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        158       80.20       80.20
          1 |         39       19.80      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct34 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =     197
REML estimate of between-study variance               tau2           =  .02956
% residual variation due to heterogeneity             I-squared_res  =  62.80%
Proportion of between-study variance explained        Adj R-squared  =   4.78%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  Rev_ibct34 |   .0847644   .0448554     1.89   0.060    -.0036996    .1732284
       _cons |   .2061065   .0200571    10.28   0.000     .1665497    .2456633
------------------------------------------------------------------------------

. tabulate Rev_ibct35 if Filter_Overall==1
```

```
 Rev_ibct35 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        188       95.43       95.43
          1 |          9        4.57      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct35 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =     197
REML estimate of between-study variance               tau2           =  .03132
% residual variation due to heterogeneity             I-squared_res  =  66.19%
Proportion of between-study variance explained        Adj R-squared  =  -0.91%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  Rev_ibct35 |  -.0200541   .0790166    -0.25   0.800    -.1758908    .1357827
       _cons |   .2246791   .0187874    11.96   0.000     .1876266    .2617316
------------------------------------------------------------------------------

. tabulate Rev_ibct36 if Filter_Overall==1

 Rev_ibct36 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        155       78.68       78.68
          1 |         42       21.32      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct36 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =     197
REML estimate of between-study variance               tau2           =  .03133
% residual variation due to heterogeneity             I-squared_res  =  66.11%
Proportion of between-study variance explained        Adj R-squared  =  -0.92%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  Rev_ibct36 |  -.0019202   .0423986    -0.05   0.964    -.0855388    .0816985
       _cons |   .2240184   .0210108    10.66   0.000     .1825808    .2654559
------------------------------------------------------------------------------

. tabulate Rev_ibct37 if Filter_Overall==1

 Rev_ibct37 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        186       94.42       94.42
          1 |         11        5.58      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct37 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =     197
REML estimate of between-study variance               tau2           =   .0311
% residual variation due to heterogeneity             I-squared_res  =  65.92%
Proportion of between-study variance explained        Adj R-squared  =  -0.18%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
```

```
-------------+----------------------------------------------------------------
  Rev_ibct37 |  -.0601394   .0703824    -0.85   0.394    -.1989478     .078669
       _cons |   .2278223   .0189041    12.05   0.000     .1905395     .265105
------------------------------------------------------------------------------

. tabulate Rev_ibct38 if Filter_Overall==1

 Rev_ibct38 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        197      100.00      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct39 if Filter_Overall==1

 Rev_ibct39 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        196       99.49       99.49
          1 |          1        0.51      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct40 if Filter_Overall==1

 Rev_ibct40 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        189       95.94       95.94
          1 |          8        4.06      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct40 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                     Number of obs  =     197
REML estimate of between-study variance             tau2           =  .03134
% residual variation due to heterogeneity           I-squared_res  =  66.17%
Proportion of between-study variance explained      Adj R-squared  =  -0.97%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  Rev_ibct40 |  -.0584469   .0836511    -0.70   0.486     -.223424    .1065302
       _cons |   .2264797   .0187271    12.09   0.000      .189546    .2634134
------------------------------------------------------------------------------

. tabulate Rev_ibct41 if Filter_Overall==1

 Rev_ibct41 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        196       99.49       99.49
          1 |          1        0.51      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct42 if Filter_Overall==1

 Rev_ibct42 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        194       98.48       98.48
          1 |          3        1.52      100.00
```

```
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct42 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =     197
REML estimate of between-study variance               tau2           =  .03144
% residual variation due to heterogeneity             I-squared_res  =  66.07%
Proportion of between-study variance explained        Adj R-squared  =  -1.27%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  Rev_ibct42 |  -.0323349   .1118185    -0.29   0.773    -.2528639     .188194
       _cons |   .2244637   .0185242    12.12   0.000     .1879302    .2609972
------------------------------------------------------------------------------

. tabulate Rev_ibct43 if Filter_Overall==1

 Rev_ibct43 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        195       98.98       98.98
          1 |          2        1.02      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct44 if Filter_Overall==1

 Rev_ibct44 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        197      100.00      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct45 if Filter_Overall==1

 Rev_ibct45 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        197      100.00      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct46 if Filter_Overall==1

 Rev_ibct46 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        197      100.00      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct47 if Filter_Overall==1

 Rev_ibct47 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        197      100.00      100.00
------------+-----------------------------------
      Total |        197      100.00
```

```
. tabulate Rev_ibct48 if Filter_Overall==1

 Rev_ibct48 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        197      100.00      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct49 if Filter_Overall==1

 Rev_ibct49 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        197      100.00      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct50 if Filter_Overall==1

 Rev_ibct50 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        196       99.49       99.49
          1 |          1        0.51      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct51 if Filter_Overall==1

 Rev_ibct51 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        197      100.00      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct52 if Filter_Overall==1

 Rev_ibct52 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        197      100.00      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct53 if Filter_Overall==1

 Rev_ibct53 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        197      100.00      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct54 if Filter_Overall==1

 Rev_ibct54 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        196       99.49       99.49
          1 |          1        0.51      100.00
------------+-----------------------------------
      Total |        197      100.00
```

```
. tabulate Rev_ibct55 if Filter_Overall==1

 Rev_ibct55 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        197      100.00      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct56 if Filter_Overall==1

 Rev_ibct56 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        191       96.95       96.95
          1 |          6        3.05      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct56 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =     197
REML estimate of between-study variance               tau2           =  .03136
% residual variation due to heterogeneity             I-squared_res  =  66.10%
Proportion of between-study variance explained        Adj R-squared  =  -1.03%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  Rev_ibct56 |   .0156497     .08909     0.18   0.861    -.1600539    .1913534
       _cons |   .2228684   .0186697    11.94   0.000      .186048    .2596887
------------------------------------------------------------------------------

. tabulate Rev_ibct57 if Filter_Overall==1

 Rev_ibct57 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        194       98.48       98.48
          1 |          3        1.52      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct57 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =     197
REML estimate of between-study variance               tau2           =  .03121
% residual variation due to heterogeneity             I-squared_res  =  65.88%
Proportion of between-study variance explained        Adj R-squared  =  -0.53%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  Rev_ibct57 |  -.0588741   .1339042    -0.44   0.661    -.3229605    .2052123
       _cons |    .224626   .0184033    12.21   0.000      .188331    .2609211
------------------------------------------------------------------------------

. tabulate Rev_ibct58 if Filter_Overall==1

 Rev_ibct58 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        196       99.49       99.49
          1 |          1        0.51      100.00
```

```
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct59 if Filter_Overall==1

 Rev_ibct59 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        196       99.49       99.49
          1 |          1        0.51      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct60 if Filter_Overall==1

 Rev_ibct60 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        197      100.00      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct61 if Filter_Overall==1

 Rev_ibct61 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        131       66.50       66.50
          1 |         66       33.50      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct61 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                     Number of obs  =     197
REML estimate of between-study variance             tau2           =  .03125
% residual variation due to heterogeneity           I-squared_res  =  66.19%
Proportion of between-study variance explained      Adj R-squared  =  -0.67%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  Rev_ibct61 |   .0270076    .037452     0.72   0.472    -.0468554    .1008706
       _cons |   .2130907   .0232797     9.15   0.000     .1671784    .2590029
------------------------------------------------------------------------------

. tabulate Rev_ibct62 if Filter_Overall==1

 Rev_ibct62 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        115       58.38       58.38
          1 |         82       41.62      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct62 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                     Number of obs  =     197
REML estimate of between-study variance             tau2           =  .03123
% residual variation due to heterogeneity           I-squared_res  =  66.00%
Proportion of between-study variance explained      Adj R-squared  =  -0.60%
With Knapp-Hartung modification
------------------------------------------------------------------------------
```

```
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  Rev_ibct62 |    .017845   .0366062     0.49   0.626    -.0543498    .0900398
       _cons |   .2153804   .0247229     8.71   0.000     .1666218     .264139
------------------------------------------------------------------------------

. tabulate Rev_ibct63 if Filter_Overall==1

 Rev_ibct63 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        164       83.25       83.25
          1 |         33       16.75      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct63 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                         Number of obs  =     197
REML estimate of between-study variance                 tau2           =  .03064
% residual variation due to heterogeneity               I-squared_res  =  65.58%
Proportion of between-study variance explained          Adj R-squared  =   1.29%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  Rev_ibct63 |   .0547593   .0468665     1.17   0.244     -.037671    .1471897
       _cons |   .2133252   .0200617    10.63   0.000     .1737594     .252891
------------------------------------------------------------------------------

. tabulate Rev_ibct64 if Filter_Overall==1

 Rev_ibct64 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        131       66.50       66.50
          1 |         66       33.50      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct64 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                         Number of obs  =     197
REML estimate of between-study variance                 tau2           =  .03085
% residual variation due to heterogeneity               I-squared_res  =  65.66%
Proportion of between-study variance explained          Adj R-squared  =   0.61%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  Rev_ibct64 |   .0388447   .0372544     1.04   0.298    -.0346286     .112318
       _cons |    .208284   .0232528     8.96   0.000     .1624248    .2541432
------------------------------------------------------------------------------

. tabulate Rev_ibct65 if Filter_Overall==1

 Rev_ibct65 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        181       91.88       91.88
          1 |         16        8.12      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct65 if Filter_Overall==1, wsse(_SE) knapphartung reml
```

```
Meta-regression                                     Number of obs  =     197
REML estimate of between-study variance             tau2           =  .02987
% residual variation due to heterogeneity           I-squared_res  =  64.78%
Proportion of between-study variance explained      Adj R-squared  =   3.77%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  Rev_ibct65 |   .1018652   .0579116     1.76   0.080    -.0123484    .2160788
       _cons |   .2121129    .019057    11.13   0.000     .1745286    .2496972
------------------------------------------------------------------------------

. tabulate Rev_ibct66 if Filter_Overall==1

 Rev_ibct66 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        194       98.48       98.48
          1 |          3        1.52      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct66 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                     Number of obs  =     197
REML estimate of between-study variance             tau2           =  .03109
% residual variation due to heterogeneity           I-squared_res  =  66.10%
Proportion of between-study variance explained      Adj R-squared  =  -0.14%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  Rev_ibct66 |   .1134203   .1616651     0.70   0.484    -.2054163    .4322568
       _cons |   .2220234   .0183258    12.12   0.000     .1858813    .2581656
------------------------------------------------------------------------------

. tabulate Rev_ibct67 if Filter_Overall==1

 Rev_ibct67 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        184       93.40       93.40
          1 |         13        6.60      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct67 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                     Number of obs  =     197
REML estimate of between-study variance             tau2           =  .03128
% residual variation due to heterogeneity           I-squared_res  =  65.86%
Proportion of between-study variance explained      Adj R-squared  =  -0.76%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  Rev_ibct67 |  -.0220671   .0678486    -0.33   0.745    -.1558784    .1117441
       _cons |   .2252639   .0190012    11.86   0.000     .1877897    .2627381
------------------------------------------------------------------------------

. tabulate Rev_ibct68 if Filter_Overall==1

 Rev_ibct68 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        185       93.91       93.91
```

```
          1 |         12        6.09      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct68 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =     197
REML estimate of between-study variance               tau2           =  .03131
% residual variation due to heterogeneity             I-squared_res  =  66.17%
Proportion of between-study variance explained        Adj R-squared  =  -0.86%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  Rev_ibct68 |  -.0256234    .069981    -0.37   0.715    -.1636402    .1123935
       _cons |   .2254216   .0189548    11.89   0.000     .1880388    .2628043
------------------------------------------------------------------------------

. tabulate Rev_ibct69 if Filter_Overall==1

 Rev_ibct69 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        188       95.43       95.43
          1 |          9        4.57      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct69 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =     197
REML estimate of between-study variance               tau2           =  .03132
% residual variation due to heterogeneity             I-squared_res  =  66.17%
Proportion of between-study variance explained        Adj R-squared  =  -0.89%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  Rev_ibct69 |  -.0071676   .0840415    -0.09   0.932    -.1729147    .1585794
       _cons |   .2238996   .0187179    11.96   0.000     .1869841    .2608151
------------------------------------------------------------------------------

. tabulate Rev_ibct70 if Filter_Overall==1

 Rev_ibct70 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        182       92.39       92.39
          1 |         15        7.61      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct70 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =     197
REML estimate of between-study variance               tau2           =   .0307
% residual variation due to heterogeneity             I-squared_res  =  66.00%
Proportion of between-study variance explained        Adj R-squared  =   1.11%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  Rev_ibct70 |   .0861891   .0691416     1.25   0.214    -.0501723    .2225505
       _cons |   .2169647   .0188549    11.51   0.000     .1797791    .2541503
------------------------------------------------------------------------------
```

```
. tabulate Rev_ibct71 if Filter_Overall==1

 Rev_ibct71 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        163       82.74       82.74
          1 |         34       17.26      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct71 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =     197
REML estimate of between-study variance               tau2           =  .03117
% residual variation due to heterogeneity             I-squared_res  =  65.82%
Proportion of between-study variance explained        Adj R-squared  =  -0.42%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  Rev_ibct71 |  -.0229237   .0515379    -0.44   0.657     -.124567    .0787196
       _cons |    .226862   .0197242    11.50   0.000     .1879618    .2657622
------------------------------------------------------------------------------

. tabulate Rev_ibct72 if Filter_Overall==1

 Rev_ibct72 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        196       99.49       99.49
          1 |          1        0.51      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct73 if Filter_Overall==1

 Rev_ibct73 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        197      100.00      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct74 if Filter_Overall==1

 Rev_ibct74 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        197      100.00      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct75 if Filter_Overall==1

 Rev_ibct75 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        191       96.95       96.95
          1 |          6        3.05      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct75 if Filter_Overall==1, wsse(_SE) knapphartung reml
```

```
Meta-regression                                     Number of obs  =     197
REML estimate of between-study variance             tau2           =  .03128
% residual variation due to heterogeneity           I-squared_res  =  66.14%
Proportion of between-study variance explained      Adj R-squared  =  -0.75%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  Rev_ibct75 |   .1122471   .1038786     1.08   0.281    -.0926228    .3171169
       _cons |   .2199576   .0185379    11.87   0.000     .1833971    .2565182
------------------------------------------------------------------------------

. tabulate Rev_ibct76 if Filter_Overall==1

 Rev_ibct76 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        193       97.97       97.97
          1 |          4        2.03      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct76 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                     Number of obs  =     197
REML estimate of between-study variance             tau2           =  .03118
% residual variation due to heterogeneity           I-squared_res  =  66.19%
Proportion of between-study variance explained      Adj R-squared  =  -0.43%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  Rev_ibct76 |  -.0353339   .1841527    -0.19   0.848    -.3985205    .3278528
       _cons |   .2238543   .0183136    12.22   0.000      .187736    .2599725
------------------------------------------------------------------------------

. tabulate Rev_ibct77 if Filter_Overall==1

 Rev_ibct77 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        197      100.00      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct78 if Filter_Overall==1

 Rev_ibct78 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        145       73.60       73.60
          1 |         52       26.40      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct78 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                     Number of obs  =     197
REML estimate of between-study variance             tau2           =  .03128
% residual variation due to heterogeneity           I-squared_res  =  66.05%
Proportion of between-study variance explained      Adj R-squared  =  -0.75%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
```

```
  Rev_ibct78 |   .0188299   .0423708     0.44   0.657     -.064734    .1023938
       _cons |   .2189061   .0210018    10.42   0.000     .1774863    .2603259
------------------------------------------------------------------------------

. tabulate Rev_ibct79 if Filter_Overall==1

 Rev_ibct79 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        193       97.97       97.97
          1 |          4        2.03      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct79 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                         Number of obs  =     197
REML estimate of between-study variance                 tau2           =  .03089
% residual variation due to heterogeneity               I-squared_res  =  64.64%
Proportion of between-study variance explained          Adj R-squared  =   0.50%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  Rev_ibct79 |  -.1110113   .1101214    -1.01   0.315    -.3281932    .1061705
       _cons |   .2265362   .0184329    12.29   0.000     .1901827    .2628898
------------------------------------------------------------------------------

. tabulate Rev_ibct80 if Filter_Overall==1

 Rev_ibct80 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        158       80.20       80.20
          1 |         39       19.80      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct80 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                         Number of obs  =     197
REML estimate of between-study variance                 tau2           =  .03022
% residual variation due to heterogeneity               I-squared_res  =  64.87%
Proportion of between-study variance explained          Adj R-squared  =   2.66%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  Rev_ibct80 |  -.0972887   .0464019    -2.10   0.037    -.1888028   -.0057746
       _cons |   .2413385   .0200134    12.06   0.000      .201868    .2808089
------------------------------------------------------------------------------

. tabulate Rev_ibct81 if Filter_Overall==1

 Rev_ibct81 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        197      100.00      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct82 if Filter_Overall==1

 Rev_ibct82 |      Freq.     Percent        Cum.
------------+-----------------------------------
```

```
          0 |        196       99.49       99.49
          1 |          1        0.51      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct83 if Filter_Overall==1

 Rev_ibct83 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        197      100.00      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct84 if Filter_Overall==1

 Rev_ibct84 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        188       95.43       95.43
          1 |          9        4.57      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct84 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                     Number of obs  =     197
REML estimate of between-study variance             tau2           =  .03138
% residual variation due to heterogeneity           I-squared_res  =  66.07%
Proportion of between-study variance explained      Adj R-squared  =  -1.08%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  Rev_ibct84 |   .0082231   .0763521     0.11   0.914    -.1423588    .1588051
       _cons |   .2230593   .0188404    11.84   0.000     .1859021    .2602165
------------------------------------------------------------------------------

. tabulate Rev_ibct85 if Filter_Overall==1

 Rev_ibct85 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        164       83.25       83.25
          1 |         33       16.75      100.00
------------+-----------------------------------
      Total |        197      100.00

. metareg ES Rev_ibct85 if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                     Number of obs  =     197
REML estimate of between-study variance             tau2           =  .03059
% residual variation due to heterogeneity           I-squared_res  =  65.56%
Proportion of between-study variance explained      Adj R-squared  =   1.46%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  Rev_ibct85 |  -.0804735   .0511568    -1.57   0.117    -.1813652    .0204181
       _cons |   .2351842   .0196223    11.99   0.000      .196485    .2738835
------------------------------------------------------------------------------

. tabulate Rev_ibct86 if Filter_Overall==1
```

```
 Rev_ibct86 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        196       99.49       99.49
          1 |          1        0.51      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct87 if Filter_Overall==1

 Rev_ibct87 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        197      100.00      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct88 if Filter_Overall==1

 Rev_ibct88 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        197      100.00      100.00
------------+-----------------------------------
      Total |        197      100.00


. tabulate Rev_ibct89 if Filter_Overall==1

 Rev_ibct89 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        196       99.49       99.49
          1 |          1        0.51      100.00
------------+-----------------------------------
      Total |        197      100.00
```

Clusters

```
Model Overall_U2a
.
. tabulate  Rev_Cluster1_SS               if Filter_Overall==1

  Cluster1: |
     Social |
  Support - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         63       31.98       31.98
          1 |        134       68.02      100.00
------------+-----------------------------------
      Total |        197      100.00

.
. metareg ES  Rev_Cluster1_SS             if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                         Number of obs  =     197
REML estimate of between-study variance                 tau2           =   .0312
% residual variation due to heterogeneity               I-squared_res  =  65.98%
Proportion of between-study variance explained          Adj R-squared  =  -0.50%
With Knapp-Hartung modification
------------------------------------------------------------------------------
             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
----------------+-------------------------------------------------------------
Rev_Cluster1_SS |   .0165841   .0395204     0.42   0.675    -.0613581    .0945264
          _cons |   .2120165   .0329021     6.44   0.000     .1471269    .2769061
------------------------------------------------------------------------------

.
.
Model Overall_U2b
.
. tabulate  Rev_Cluster2_Reg              if Filter_Overall==1

  Cluster2: |
 Regulation |
          - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        146       74.11       74.11
          1 |         51       25.89      100.00
------------+-----------------------------------
      Total |        197      100.00

.
. metareg ES  Rev_Cluster2_Reg    if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                         Number of obs  =     197
REML estimate of between-study variance                 tau2           =   .0298
% residual variation due to heterogeneity               I-squared_res  =  63.12%
Proportion of between-study variance explained          Adj R-squared  =   4.01%
With Knapp-Hartung modification
--------------------------------------------------------------------------------
```

```
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+-------------------------------------------------------------------
Rev_Cluster2_Reg |   .0939406   .0419547     2.24   0.026     .0111974    .1766838
           _cons |   .2003381   .0206621     9.70   0.000     .1595881    .2410881
------------------------------------------------------------------------------------

.
.
Model Overall_U2c
.
. tabulate  Rev_Cluster3_FM               if Filter_Overall==1

  Cluster3: |
 Feedback & |
 Monitoring |
          - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        109       55.33       55.33
          1 |         88       44.67      100.00
------------+-----------------------------------
      Total |        197      100.00

.
. metareg ES  Rev_Cluster3_FM             if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =     197
REML estimate of between-study variance               tau2           =  .03076
% residual variation due to heterogeneity             I-squared_res  =  65.65%
Proportion of between-study variance explained        Adj R-squared  =   0.92%
With Knapp-Hartung modification
------------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+-------------------------------------------------------------------
Rev_Cluster3_FM |  -.0487642   .0364384    -1.34   0.182    -.1206281    .0230998
           _cons |   .2456585   .0246234     9.98   0.000      .197096    .2942209
------------------------------------------------------------------------------------

.
.
Model Overall_U2d
.
. tabulate  Rev_Cluster4_Asc              if Filter_Overall==1

  Cluster4: |
Association |
        s - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        192       97.46       97.46
          1 |          5        2.54      100.00
------------+-----------------------------------
      Total |        197      100.00

.
. metareg ES  Rev_Cluster4_Asc    if Filter_Overall==1, wsse(_SE) knapphartung reml
```

```
Meta-regression                                     Number of obs  =     197
REML estimate of between-study variance             tau2           =  .03126
% residual variation due to heterogeneity           I-squared_res  =  66.15%
Proportion of between-study variance explained      Adj R-squared  =  -0.71%
With Knapp-Hartung modification
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
Rev_Cluster4_Asc |   .0686156   .1105839     0.62   0.536    -.1494784    .2867097
           _cons |   .2216086   .0184986    11.98   0.000     .1851255    .2580916
------------------------------------------------------------------------------

.
.
Model Overall_U2e
.
. tabulate  Rev_Cluster5_RS               if Filter_Overall==1

  Cluster5: |
 Repetition |
        and |
Substitutio |
       ns - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        157       79.70       79.70
          1 |         40       20.30      100.00
------------+-----------------------------------
      Total |        197      100.00

.
. metareg ES  Rev_Cluster5_RS             if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                     Number of obs  =     197
REML estimate of between-study variance             tau2           =  .02931
% residual variation due to heterogeneity           I-squared_res  =  64.29%
Proportion of between-study variance explained      Adj R-squared  =   5.58%
With Knapp-Hartung modification
-------------------------------------------------------------------------------
             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
----------------+------------------------------------------------------------
Rev_Cluster5_RS |   .0870299   .0420356     2.07   0.040     .0041272    .1699326
          _cons |    .202287   .0204992     9.87   0.000     .1618583    .2427157
-------------------------------------------------------------------------------

.
.
Model Overall_U2f
.
. tabulate  Rev_Cluster6_Ant              if Filter_Overall==1

  Cluster6: |
Antecedents |
          - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        150       76.14       76.14
```

```
          1 |         47       23.86      100.00
------------+-----------------------------------
      Total |        197      100.00

.
. metareg ES  Rev_Cluster6_Ant    if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =     197
REML estimate of between-study variance               tau2           =  .02927
% residual variation due to heterogeneity             I-squared_res  =  62.59%
Proportion of between-study variance explained        Adj R-squared  =   5.71%
With Knapp-Hartung modification
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
Rev_Cluster6_Ant |   .0884355   .0415777     2.13   0.035     .0064357    .1704353
           _cons |   .2012799   .0205922     9.77   0.000     .1606678     .241892
------------------------------------------------------------------------------


.
.
Model Overall_U2g
.
. tabulate  Rev_Cluster7_SK               if Filter_Overall==1

  Cluster7: |
    Shaping |
Knowledge - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        151       76.65       76.65
          1 |         46       23.35      100.00
------------+-----------------------------------
      Total |        197      100.00

.
. metareg ES  Rev_Cluster7_SK             if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =     197
REML estimate of between-study variance               tau2           =  .03127
% residual variation due to heterogeneity             I-squared_res  =  66.03%
Proportion of between-study variance explained        Adj R-squared  =  -0.72%
With Knapp-Hartung modification
------------------------------------------------------------------------------
             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
----------------+------------------------------------------------------------
Rev_Cluster7_SK |  -.0171657   .0410561    -0.42   0.676    -.0981366    .0638053
          _cons |   .2281732   .0213542    10.69   0.000     .1860583    .2702882
------------------------------------------------------------------------------


.
.
Model Overall_U2h
.
. tabulate  Rev_Cluster8_SB               if Filter_Overall==1

  Cluster8: |
Self-belief |
          - |
Controlling |
```

```
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        185       93.91       93.91
          1 |         12        6.09      100.00
------------+-----------------------------------
      Total |        197      100.00

.
. metareg ES  Rev_Cluster8_SB             if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =     197
REML estimate of between-study variance               tau2           =   .0311
% residual variation due to heterogeneity             I-squared_res  =  65.88%
Proportion of between-study variance explained        Adj R-squared  =  -0.18%
With Knapp-Hartung modification
------------------------------------------------------------------------------
             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
----------------+-------------------------------------------------------------
Rev_Cluster8_SB |  -.0661654   .0658293    -1.01   0.316    -.1959941    .0636633
          _cons |   .2290085   .0190212    12.04   0.000     .1914948    .2665222
------------------------------------------------------------------------------

.
.
Model Overall_U2i
.
. tabulate  Rev_Cluster9_SC               if Filter_Overall==1

  Cluster9: |
  Scheduled |
Consequence |
        s - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        196       99.49       99.49
          1 |          1        0.51      100.00
------------+-----------------------------------
      Total |        197      100.00

.
.
Model Overall_U2j
.
. tabulate  Rev_Cluster10_RT              if Filter_Overall==1

 Cluster10: |
   Reward & |
   Threat - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        186       94.42       94.42
          1 |         11        5.58      100.00
------------+-----------------------------------
      Total |        197      100.00
```

```
.
. metareg ES  Rev_Cluster10_RT    if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =     197
REML estimate of between-study variance               tau2           =  .03123
% residual variation due to heterogeneity             I-squared_res  =  66.15%
Proportion of between-study variance explained        Adj R-squared  =  -0.61%
With Knapp-Hartung modification
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
Rev_Cluster10_RT |  -.0509412   .0685505    -0.74   0.458    -.1861367    .0842544
           _cons |   .2274233   .0189742    11.99   0.000     .1900024    .2648443
------------------------------------------------------------------------------


.
.
Model Overall_U2k
.
. tabulate  Rev_Cluster11_GP              if Filter_Overall==1

 Cluster11: |
    Goals & |
 Planning - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         70       35.53       35.53
          1 |        127       64.47      100.00
------------+-----------------------------------
      Total |        197      100.00


.
. metareg ES  Rev_Cluster11_GP    if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =     197
REML estimate of between-study variance               tau2           =   .0313
% residual variation due to heterogeneity             I-squared_res  =  66.02%
Proportion of between-study variance explained        Adj R-squared  =  -0.83%
With Knapp-Hartung modification
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
Rev_Cluster11_GP |  -.0025928   .0395427    -0.07   0.948    -.0805792    .0753935
           _cons |   .2253347   .0329103     6.85   0.000     .1604288    .2902407
------------------------------------------------------------------------------


.
.
Model Overall_U2l
.
. tabulate  Rev_Cluster12_CO              if Filter_Overall==1

 Cluster12: |
 Comparison |
of Outcomes |
          - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
```

```
------------+-----------------------------------
          0 |        148       75.13       75.13
          1 |         49       24.87      100.00
------------+-----------------------------------
      Total |        197      100.00

.
. metareg ES  Rev_Cluster12_CO    if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =     197
REML estimate of between-study variance               tau2           =  .03127
% residual variation due to heterogeneity             I-squared_res  =  66.18%
Proportion of between-study variance explained        Adj R-squared  =  -0.72%
With Knapp-Hartung modification
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
Rev_Cluster12_CO |   .0208244   .0438886     0.47   0.636    -.0657328    .1073816
           _cons |   .2189073    .020677    10.59   0.000      .178128    .2596866
------------------------------------------------------------------------------

.
.
Model Overall_U2m
.
. tabulate  Rev_Cluster13_Id              if Filter_Overall==1

 Cluster13: |
 Identity - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        188       95.43       95.43
          1 |          9        4.57      100.00
------------+-----------------------------------
      Total |        197      100.00

.
. metareg ES  Rev_Cluster13_Id    if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =     197
REML estimate of between-study variance               tau2           =  .03122
% residual variation due to heterogeneity             I-squared_res  =  66.15%
Proportion of between-study variance explained        Adj R-squared  =  -0.58%
With Knapp-Hartung modification
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
Rev_Cluster13_Id |   .0731295    .092546     0.79   0.430      -.10939    .2556491
           _cons |   .2205601   .0186112    11.85   0.000     .1838551    .2572651
------------------------------------------------------------------------------

.
.
Model Overall_U2n
.
. tabulate  Rev_Cluster14_NC              if Filter_Overall==1

 Cluster14: |
    Natural |
Consequence |
```

```
        s - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |       129       65.48       65.48
          1 |        68       34.52      100.00
------------+-----------------------------------
      Total |       197      100.00

.
. metareg ES  Rev_Cluster14_NC    if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                     Number of obs  =     197
REML estimate of between-study variance             tau2           =  .03119
% residual variation due to heterogeneity           I-squared_res  =  65.61%
Proportion of between-study variance explained      Adj R-squared  =  -0.48%
With Knapp-Hartung modification
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
Rev_Cluster14_NC |  -.0214691   .0392077    -0.55   0.585    -.0987947    .0558565
           _cons |   .2302902   .0220347    10.45   0.000     .1868333    .2737471
------------------------------------------------------------------------------


.
.
Model Overall_U2o
.
. tabulate  Rev_Cluster15_CB              if Filter_Overall==1

 Cluster15: |
 Comparison |
         of |
Behaviour - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |       154       78.17       78.17
          1 |        43       21.83      100.00
------------+-----------------------------------
      Total |       197      100.00

.
. metareg ES  Rev_Cluster15_CB    if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                     Number of obs  =     197
REML estimate of between-study variance             tau2           =  .03107
% residual variation due to heterogeneity           I-squared_res  =  66.03%
Proportion of between-study variance explained      Adj R-squared  =  -0.09%
With Knapp-Hartung modification
------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
Rev_Cluster15_CB |  -.0429201   .0441065    -0.97   0.332    -.1299071    .0440668
           _cons |   .2328245    .020584    11.31   0.000     .1922286    .2734204
------------------------------------------------------------------------------


.
.
```

```
Model Overall_U2p
.
. tabulate  Rev_Cluster16_CL              if Filter_Overall==1

 Cluster16: |
     Covert |
 Learning - |
Controlling |
        for |
 comparator |
        use |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        196       99.49       99.49
          1 |          1        0.51      100.00
------------+-----------------------------------
      Total |        197      100.00

.
.
.
Intervention function
.
Model Overall_U3a
.
. tabulate  Rev_iif1                              if Filter_Overall==1

   Rev_iif1 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         91       46.19       46.19
          1 |        106       53.81      100.00
------------+-----------------------------------
      Total |        197      100.00

.
. metareg ES  Rev_iif1                    if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =     197
REML estimate of between-study variance               tau2           =  .03108
% residual variation due to heterogeneity             I-squared_res  =  65.58%
Proportion of between-study variance explained        Adj R-squared  =  -0.11%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif1 |  -.0269619   .0364626    -0.74   0.461    -.0988735    .0449498
       _cons |   .2376664   .0264503     8.99   0.000      .185501    .2898317
------------------------------------------------------------------------------

.
.
```

Intervention functions

```
.
Model Overall_U3a
.
. tabulate  Rev_iif1                              if Filter_Overall==1

   Rev_iif1 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         91       46.19       46.19
          1 |        106       53.81      100.00
------------+-----------------------------------
      Total |        197      100.00
```

```
.
. metareg ES  Rev_iif1                    if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                         Number of obs  =     197
REML estimate of between-study variance                 tau2           =  .03108
% residual variation due to heterogeneity               I-squared_res  =  65.58%
Proportion of between-study variance explained          Adj R-squared  =  -0.11%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif1 |  -.0269619   .0364626    -0.74   0.461    -.0988735    .0449498
       _cons |   .2376664   .0264503     8.99   0.000      .185501    .2898317
------------------------------------------------------------------------------


.
.
Model Overall_U3b
.
. tabulate  Rev_iif2                              if Filter_Overall==1

   Rev_iif2 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        143       72.59       72.59
          1 |         54       27.41      100.00
------------+-----------------------------------
      Total |        197      100.00


.
. metareg ES  Rev_iif2                    if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                         Number of obs  =     197
REML estimate of between-study variance                 tau2           =  .03121
% residual variation due to heterogeneity               I-squared_res  =  65.89%
Proportion of between-study variance explained          Adj R-squared  =  -0.52%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif2 |  -.0228607   .0414264    -0.55   0.582     -.104562    .0588406
       _cons |   .2295148   .0212261    10.81   0.000     .1876526     .271377
------------------------------------------------------------------------------


.
.
Model Overall_U3c
.
. tabulate  Rev_iif3                              if Filter_Overall==1

   Rev_iif3 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        181       91.88       91.88
          1 |         16        8.12      100.00
------------+-----------------------------------
      Total |        197      100.00


.
. metareg ES  Rev_iif3                    if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                         Number of obs  =     197
REML estimate of between-study variance                 tau2           =  .03113
% residual variation due to heterogeneity               I-squared_res  =  66.12%
```

```
Proportion of between-study variance explained        Adj R-squared  =  -0.27%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif3 |    -.06881    .062391    -1.10   0.271    -.1918578    .0542377
       _cons |   .2299659   .0191372    12.02   0.000     .1922234    .2677085
------------------------------------------------------------------------------


.
.
Model Overall_U3d
.
. tabulate  Rev_iif4                              if Filter_Overall==1

   Rev_iif4 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        194       98.48       98.48
          1 |          3        1.52      100.00
------------+-----------------------------------
      Total |        197      100.00

.
. metareg ES  Rev_iif4                    if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =     197
REML estimate of between-study variance               tau2           =  .03112
% residual variation due to heterogeneity             I-squared_res  =  66.09%
Proportion of between-study variance explained        Adj R-squared  =  -0.26%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif4 |  -.1397637   .1297669    -1.08   0.283    -.3956905    .1161632
       _cons |   .2263007   .0183998    12.30   0.000     .1900124    .2625889
------------------------------------------------------------------------------


.
.
Model Overall_U3e
.
. tabulate  Rev_iif5                              if Filter_Overall==1

   Rev_iif5 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        141       71.57       71.57
          1 |         56       28.43      100.00
------------+-----------------------------------
      Total |        197      100.00

.
. metareg ES Rev_iif5                             if Filter_Overall==1, wsse(_SE) knapphartung
reml

Meta-regression                                       Number of obs  =     197
REML estimate of between-study variance               tau2           =  .03124
% residual variation due to heterogeneity             I-squared_res  =  66.19%
Proportion of between-study variance explained        Adj R-squared  =  -0.65%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif5 |   .0214131    .038715     0.55   0.581    -.0549407    .0977668
```

```
       _cons |   .2164103   .0223137     9.70   0.000     .1724032    .2604174
------------------------------------------------------------------------------

.
.
Model Overall_U3f
.
. tabulate  Rev_iif6                              if Filter_Overall==1

   Rev_iif6 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        197      100.00      100.00
------------+-----------------------------------
      Total |        197      100.00

.
.
Model Overall_U3g
.
. tabulate Rev_iif7                               if Filter_Overall==1

   Rev_iif7 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        170       86.29       86.29
          1 |         27       13.71      100.00
------------+-----------------------------------
      Total |        197      100.00

.
. metareg ES Rev_iif7                             if Filter_Overall==1, wsse(_SE) knapphartung
reml

Meta-regression                                       Number of obs  =     197
REML estimate of between-study variance               tau2           =  .02852
% residual variation due to heterogeneity             I-squared_res  =  61.95%
Proportion of between-study variance explained        Adj R-squared  =   8.13%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif7 |   .1295199   .0496624     2.61   0.010     .0315755    .2274642
       _cons |   .2032681   .0192632    10.55   0.000     .1652771    .2412591
------------------------------------------------------------------------------

.
.
Model Overall_U3h
.
. tabulate  Rev_iif8                              if Filter_Overall==1

   Rev_iif8 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |        189       95.94       95.94
          1 |          8        4.06      100.00
------------+-----------------------------------
      Total |        197      100.00

.
. metareg ES Rev_iif8                             if Filter_Overall==1, wsse(_SE) knapphartung
reml

Meta-regression                                       Number of obs  =     197
REML estimate of between-study variance               tau2           =  .03139
```

```
% residual variation due to heterogeneity             I-squared_res  =  66.12%
Proportion of between-study variance explained        Adj R-squared  =  -1.12%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif8 |   .0304389   .0812346     0.37   0.708    -.1297724    .1906501
       _cons |   .2219388   .0187678    11.83   0.000     .1849248    .2589527
------------------------------------------------------------------------------

.
.
Model Overall_U3i
.
. tabulate  Rev_iif9                              if Filter_Overall==1

   Rev_iif9 |      Freq.     Percent        Cum.
------------+-----------------------------------
          0 |         49       24.87       24.87
          1 |        148       75.13      100.00
------------+-----------------------------------
      Total |        197      100.00

.
. metareg ES Rev_iif9                             if Filter_Overall==1, wsse(_SE) knapphartung
reml

Meta-regression                                       Number of obs  =     197
REML estimate of between-study variance               tau2           =  .03128
% residual variation due to heterogeneity             I-squared_res  =  66.04%
Proportion of between-study variance explained        Adj R-squared  =  -0.76%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif9 |   .0094729   .0424268     0.22   0.824    -.0742013    .0931472
       _cons |   .2163792   .0368709     5.87   0.000     .1436622    .2890961
------------------------------------------------------------------------------
```

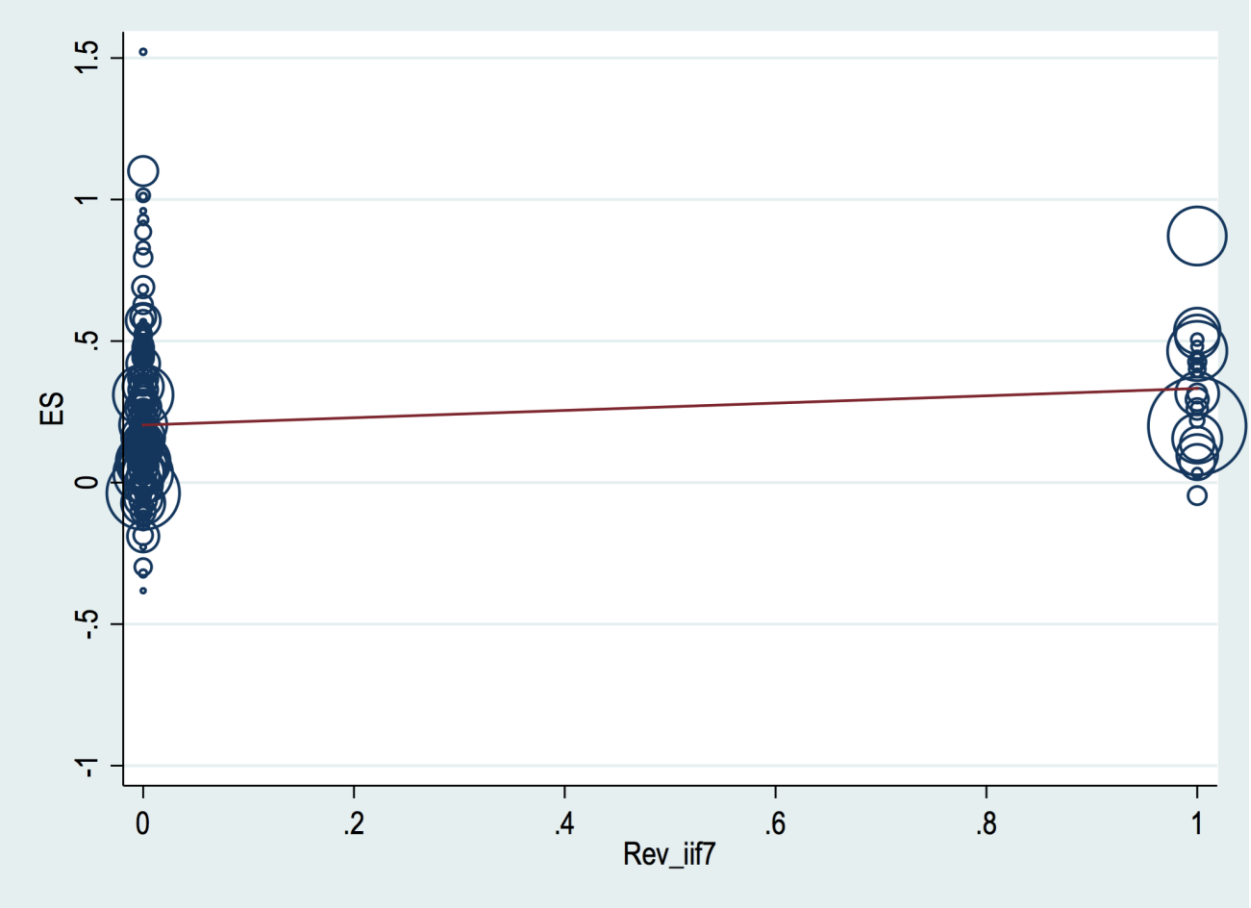
Theory-basedness

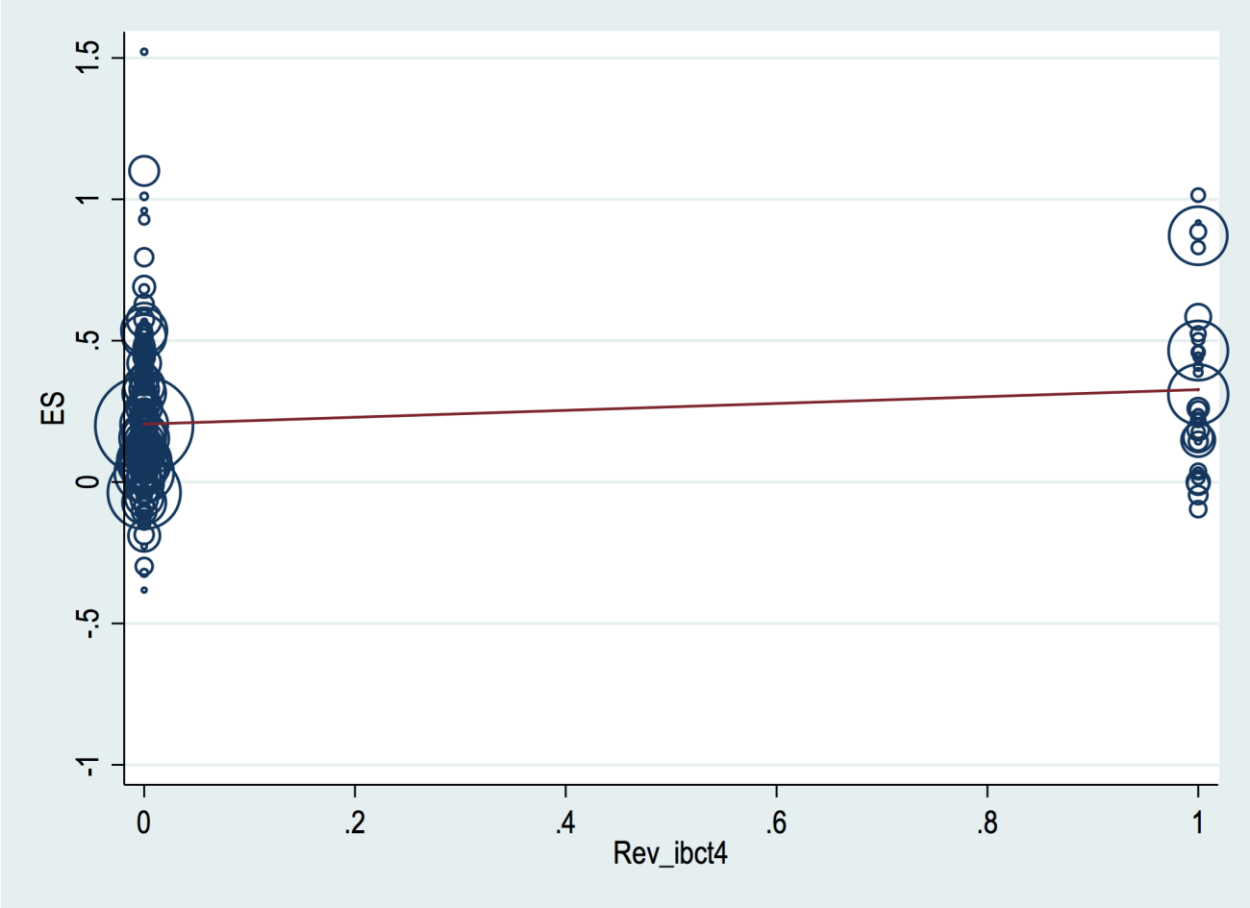
```
Model ALC_U3
.
. tabulate itb                            if Filter_Overall==1

        ITB |      Freq.     Percent        Cum.
------------+-----------------------------------
         No |        138       70.05       70.05
        Yes |         59       29.95      100.00
------------+-----------------------------------
      Total |        197      100.00

.
. metareg ES  itb                         if Filter_Overall==1, wsse(_SE) knapphartung reml

Meta-regression                                       Number of obs  =     197
REML estimate of between-study variance               tau2           =   .0312
% residual variation due to heterogeneity             I-squared_res  =  66.11%
Proportion of between-study variance explained        Adj R-squared  =  -0.51%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
```

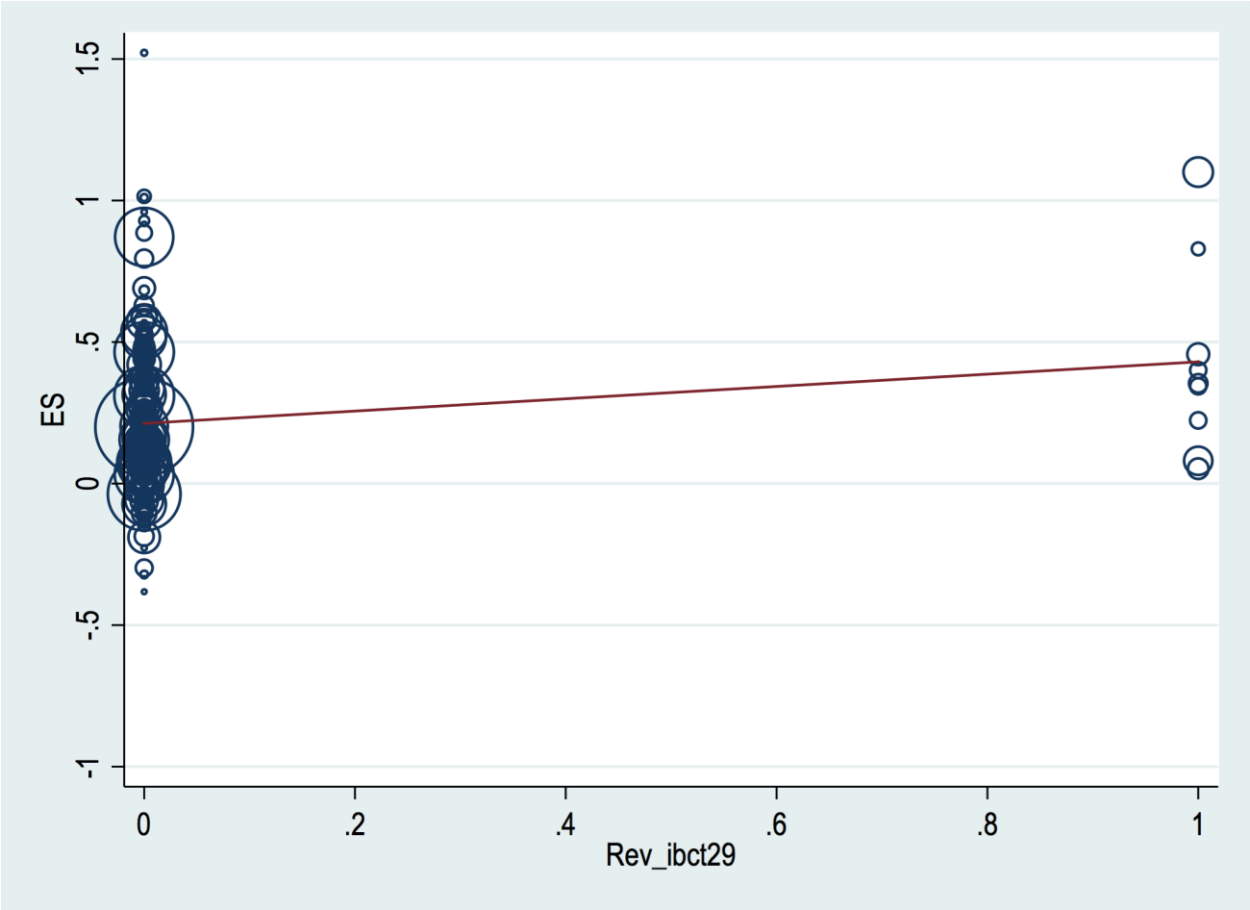
```
         itb |  -.0131241   .0406097    -0.32   0.747    -.0932147    .0669664
       _cons |   .2271827   .0214766    10.58   0.000     .1848265    .2695389
------------------------------------------------------------------------------
```

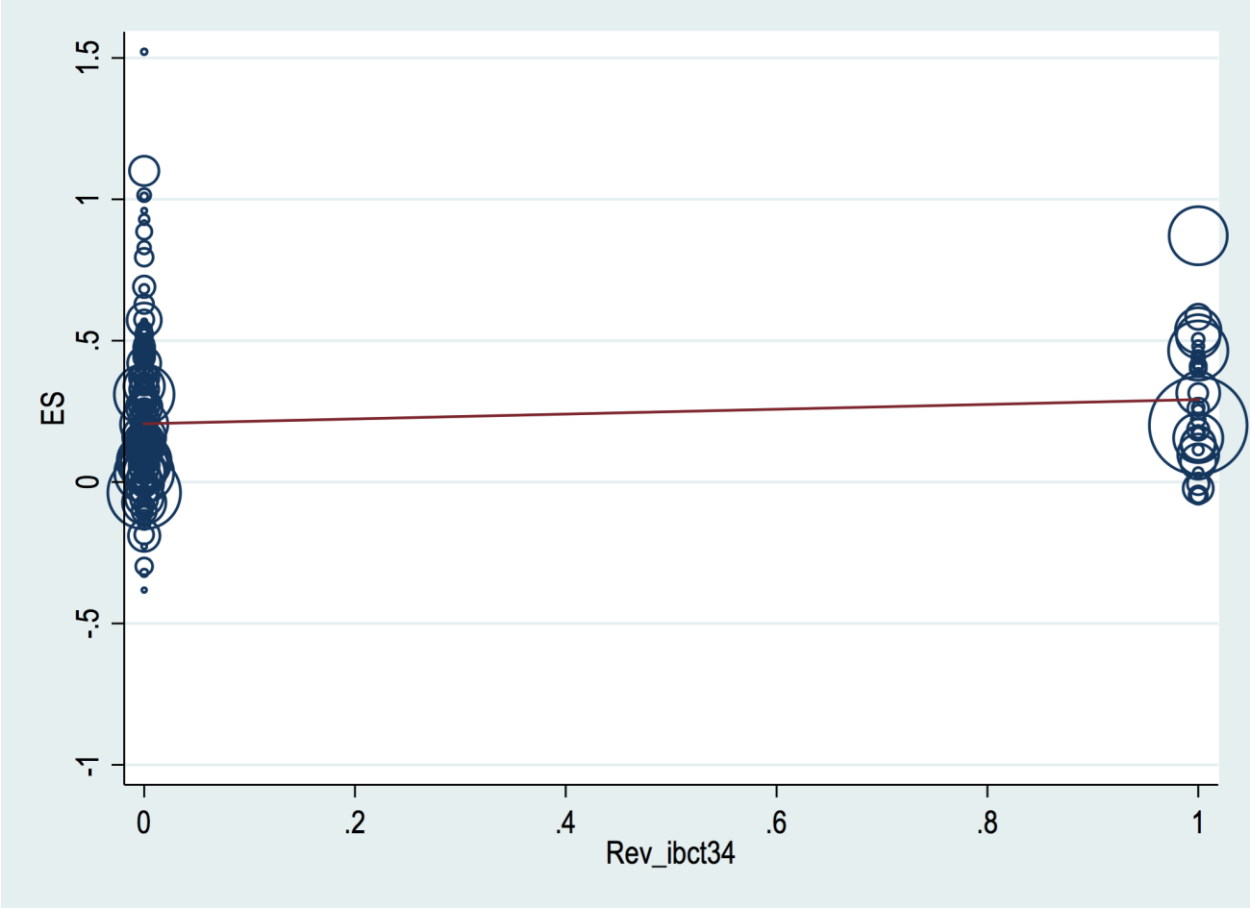
MULTIVARIATE META-ANALYSIS - CONTROLLING FOR BCT IN CONTROL GROUP USING REVISED METHOD: INDIVIDUAL BCTS AND IFS

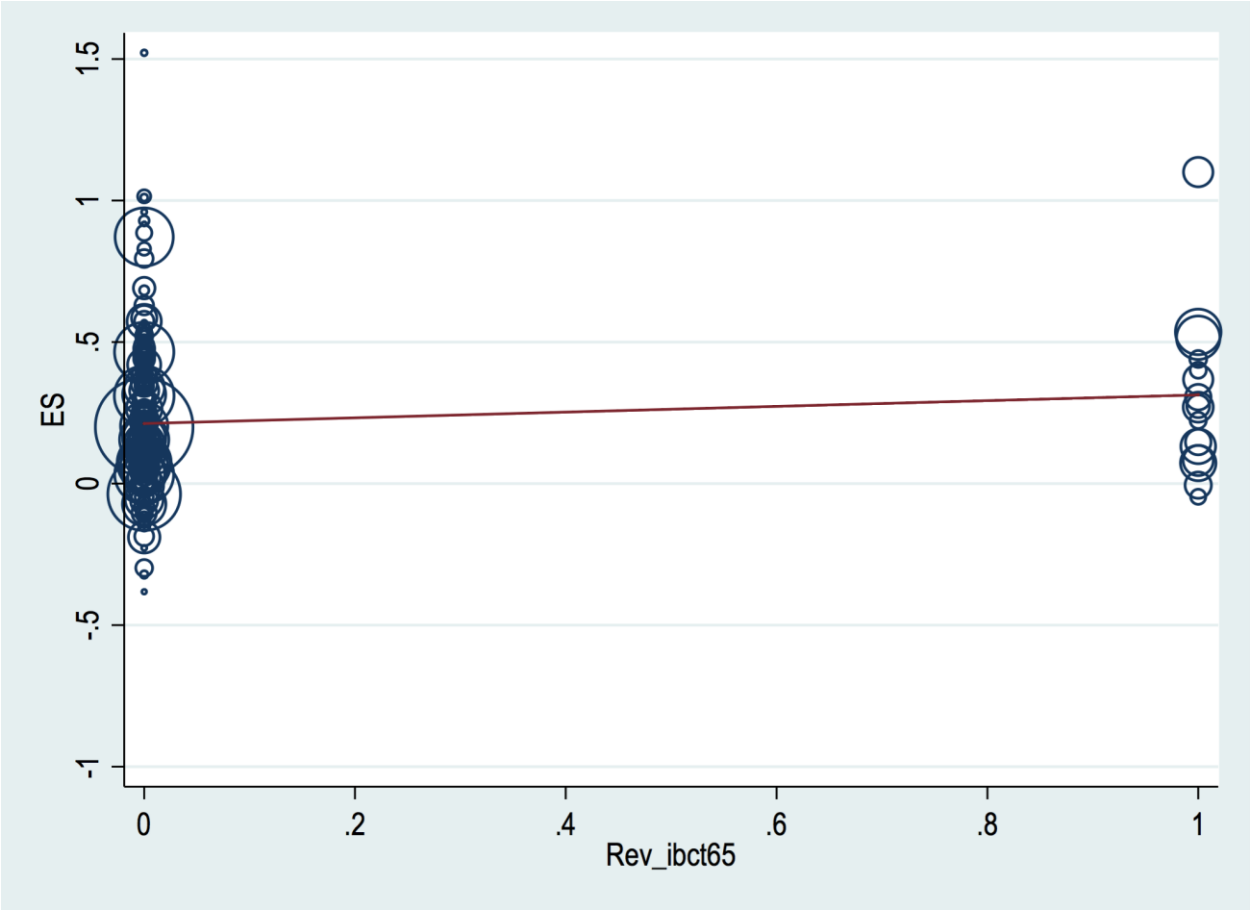
Bubble plots for covariates entered into meta-regression

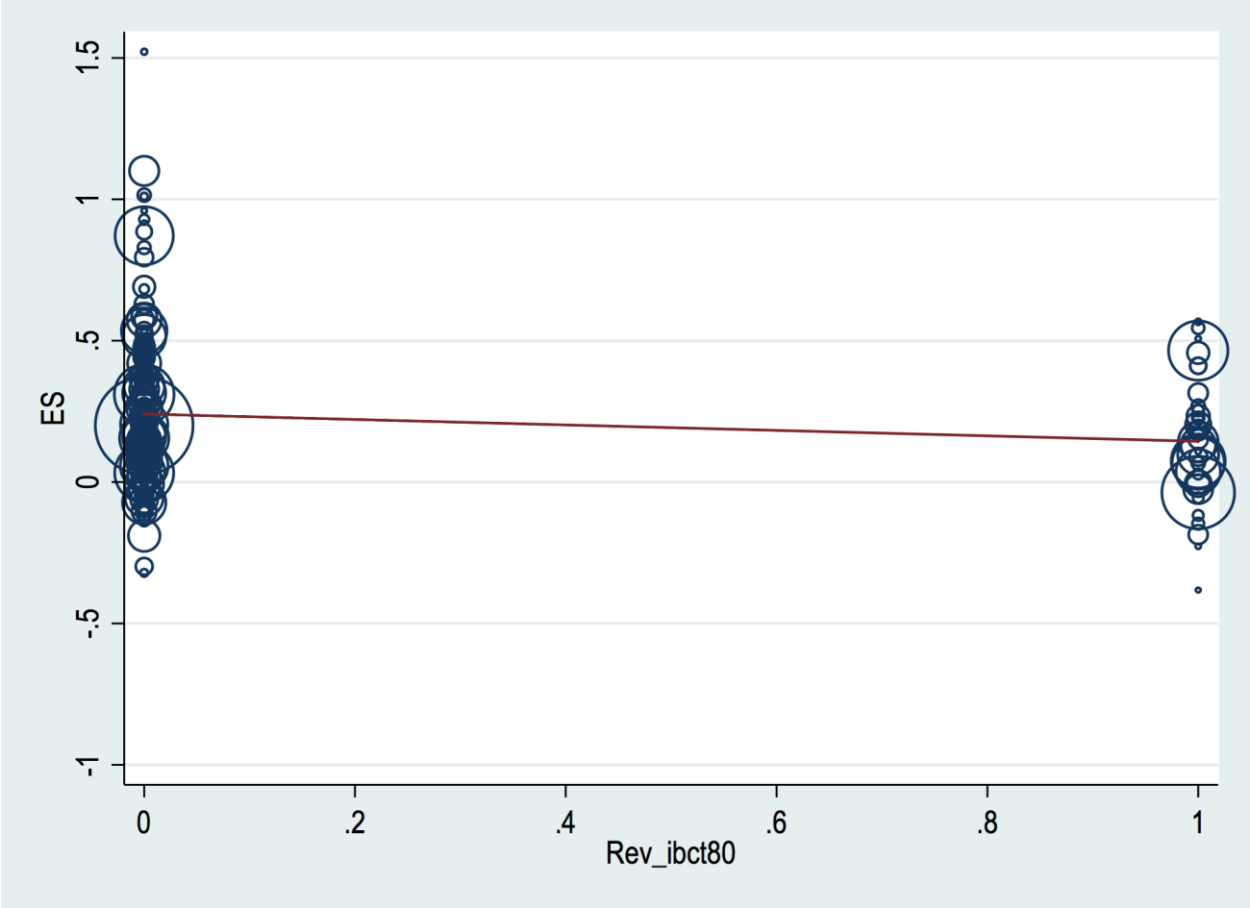


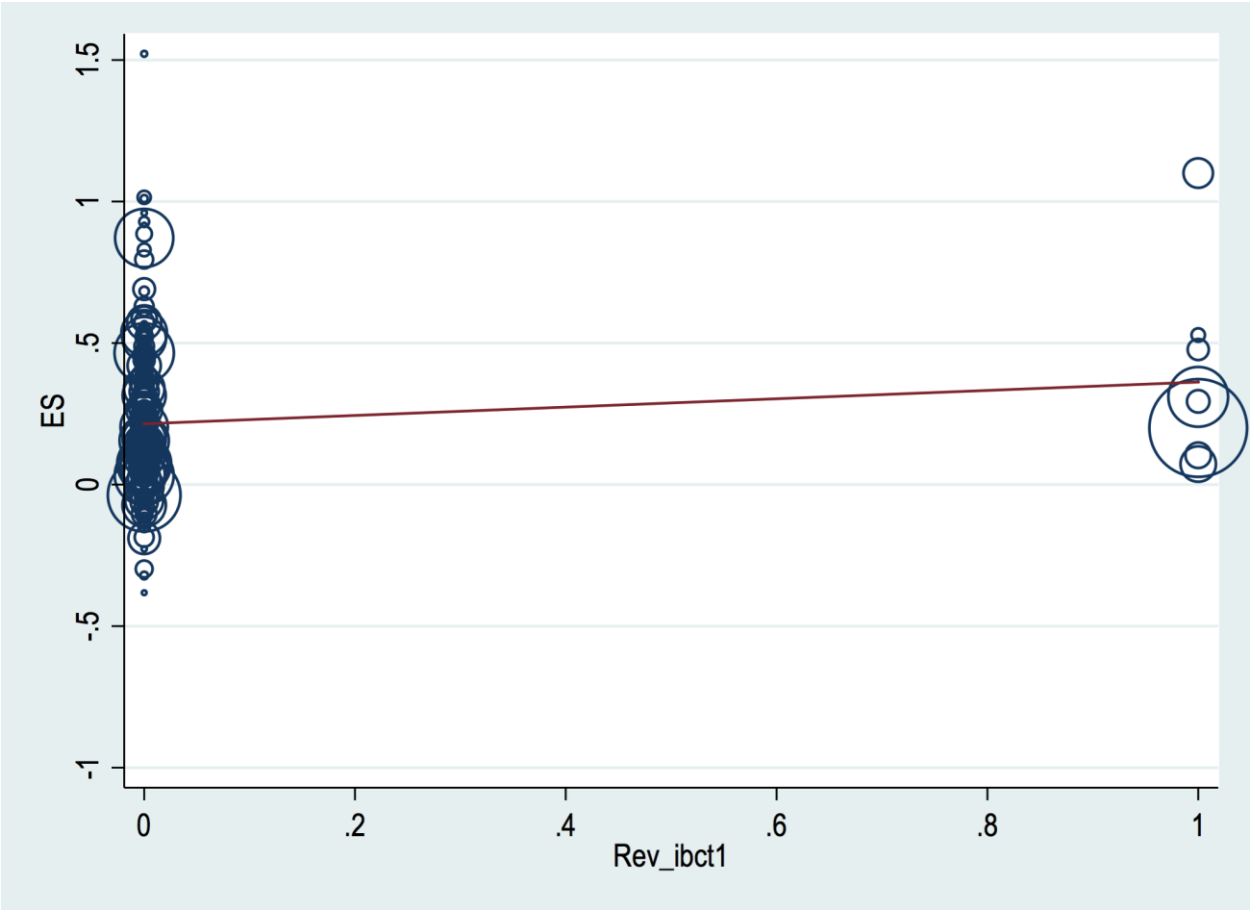

ES
1.5
1
.5
0
-.5
-1
0
.2
.4
.6
.8
1
Rev_ibct4

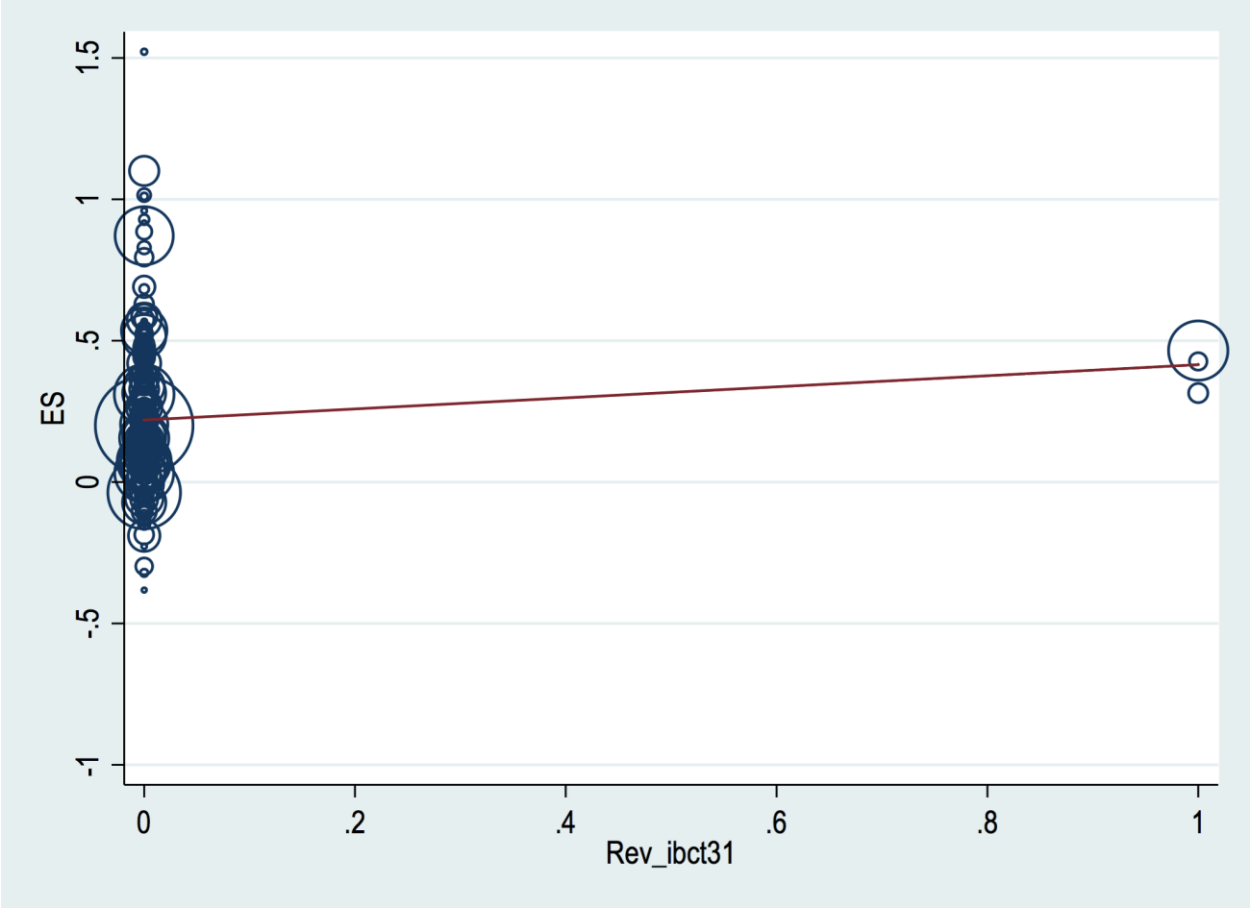

ES
1.5
1
.5
0
-.5
-1
0
.2
.4
.6
.8
1
Rev_ibct29

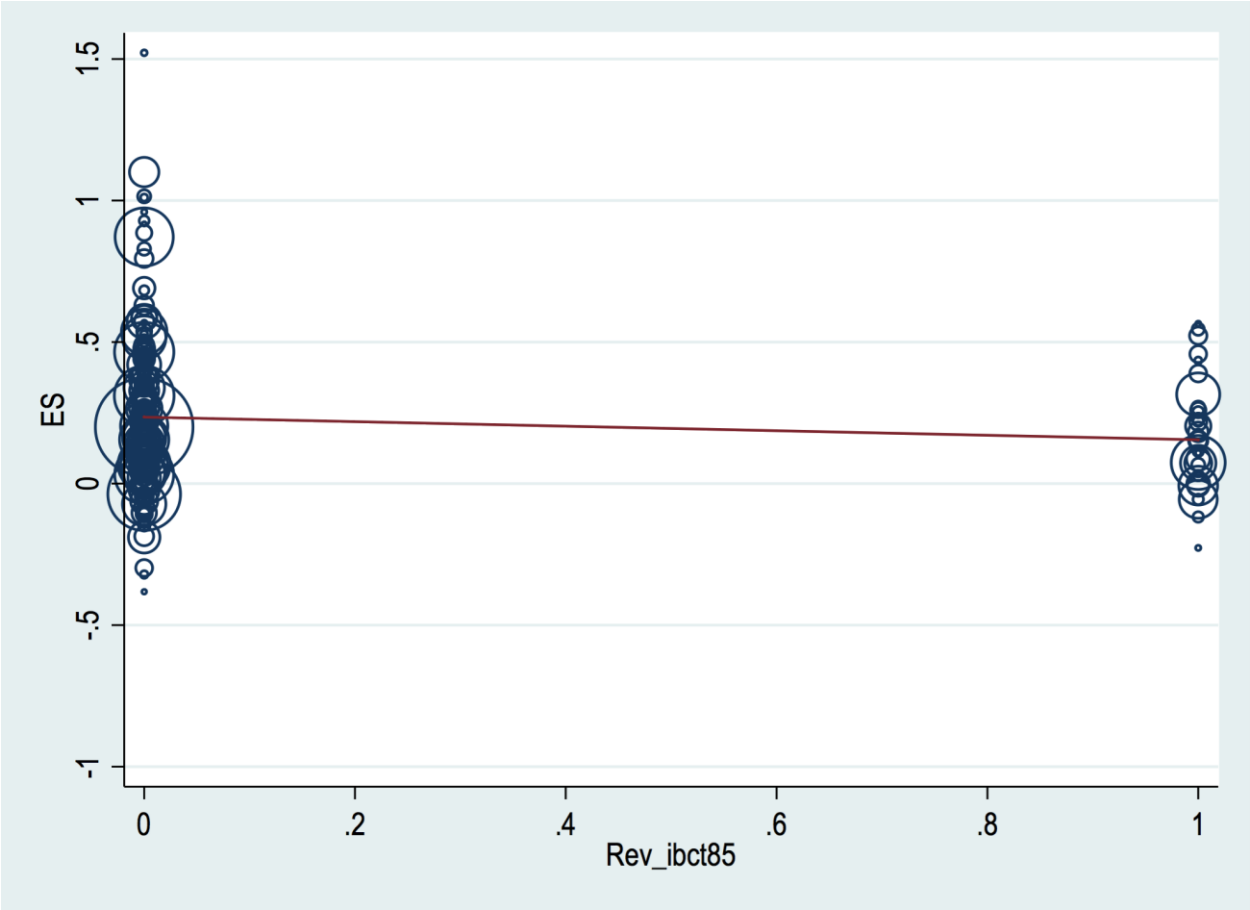

ES
1.5
1
.5
0
-.5
-1
0
.2
.4
.6
.8
1
Rev_ibct34

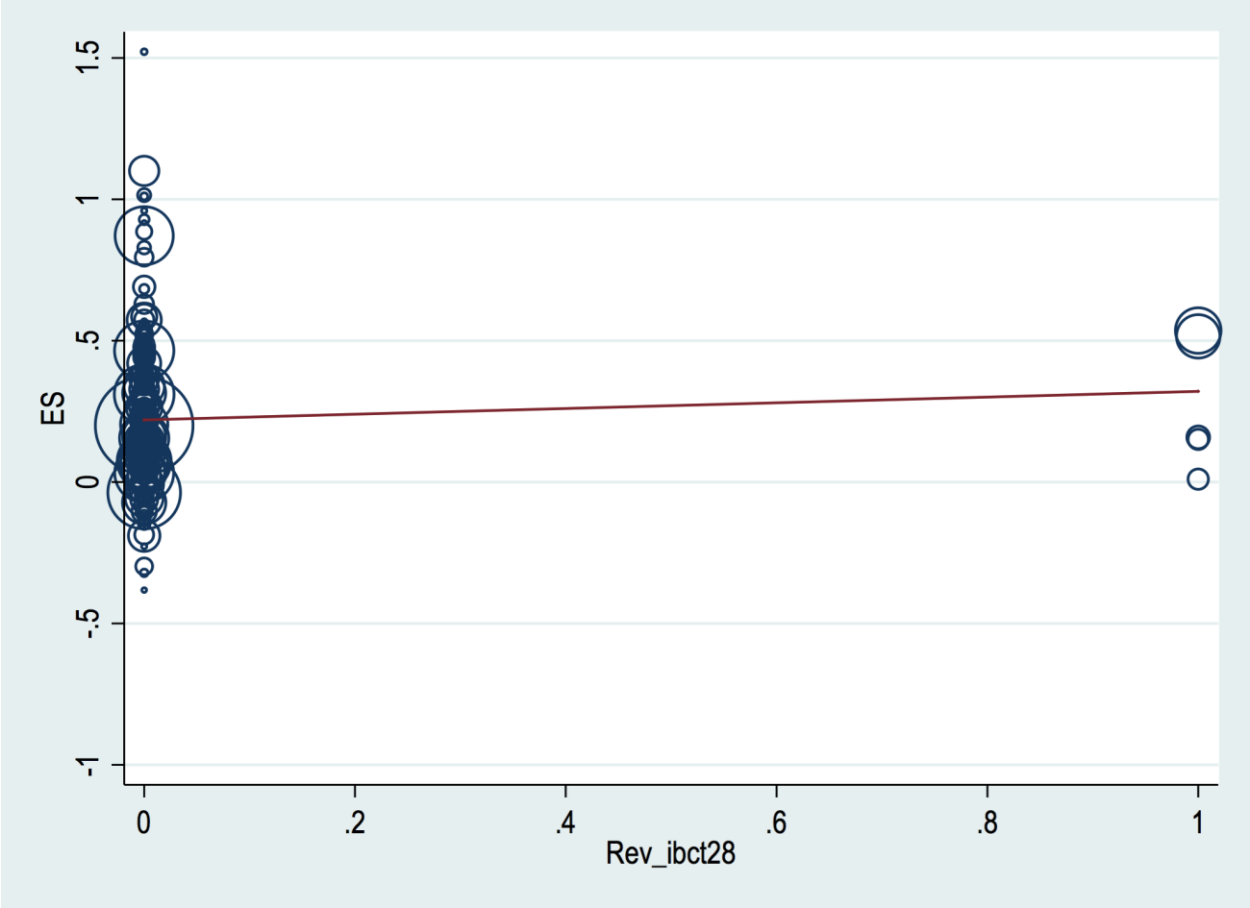

ES
1.5
1
.5
0
-.5
-1
0
.2
.4
.6
.8
1
Rev_ibct65

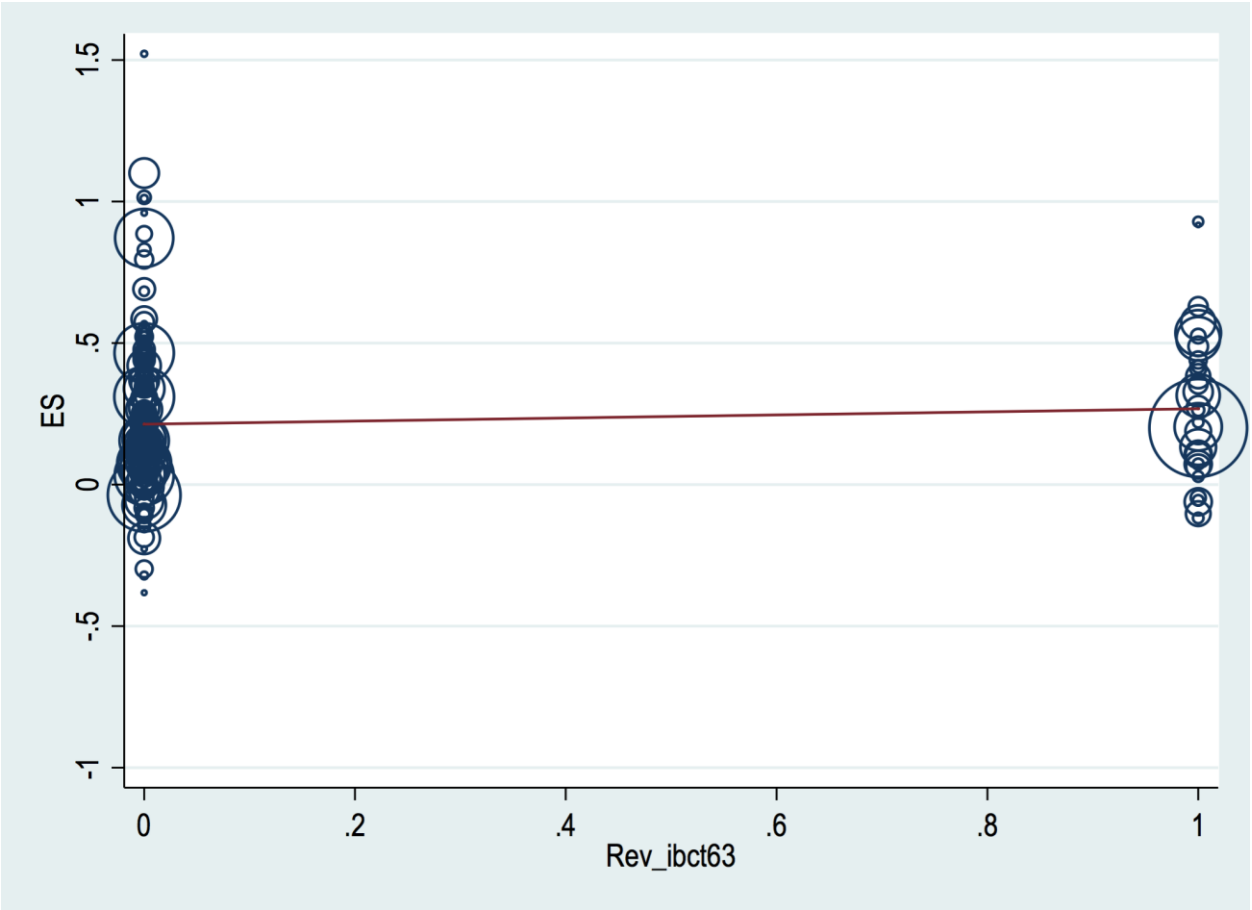

ES
1.5
1
.5
0
-.5
-1
0
.2
.4
.6
.8
1
Rev_ibct80

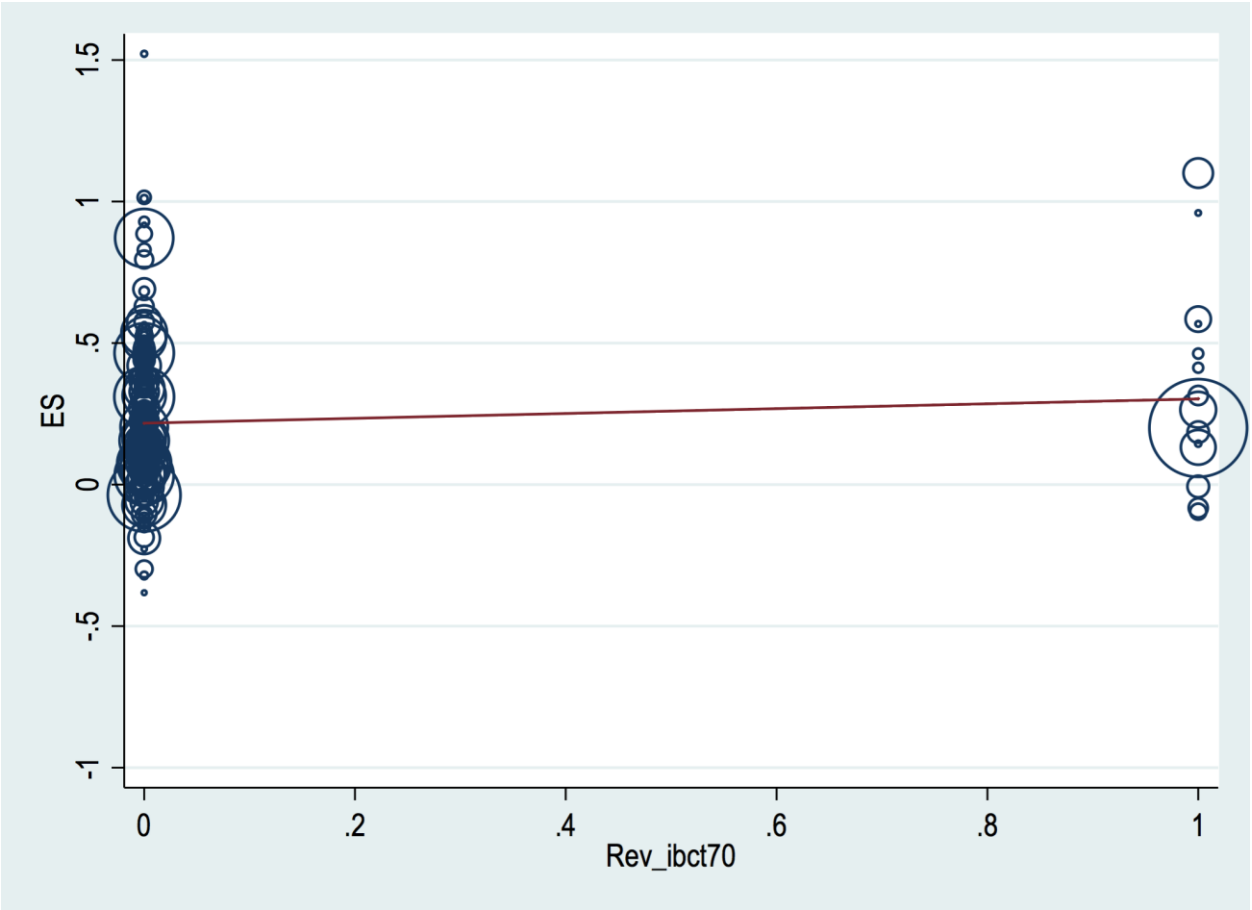

ES
1.5
1
.5
0
-.5
-1
0
.2
.4
.6
.8
1
Rev_ibct1

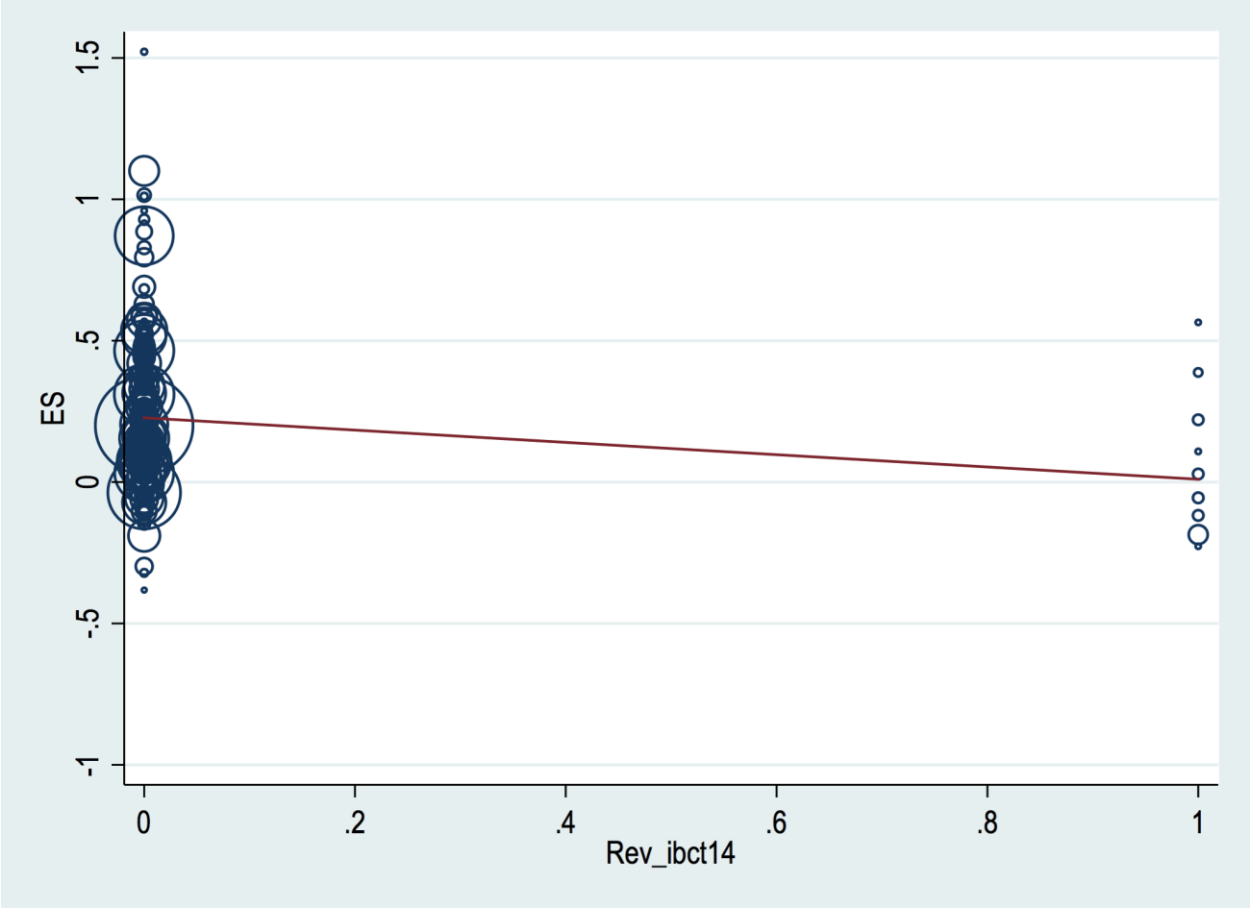

ES
1.5
1
.5
0
-.5
-1
0
.2
.4
.6
.8
1
Rev_ibct31


ES
1.5
1
.5
0
-.5
-1
0
.2
.4
.6
.8
1
Rev_ibct85


ES
1.5
1
.5
0
-.5
-1
0
.2
.4
.6
.8
1
Rev_ibct28


ES
1.5
1
.5
0
-.5
-1
0
.2
.4
.6
.8
1
Rev_ibct63


ES
1.5
1
.5
0
-.5
-1
0
.2
.4
.6
.8
1
Rev_ibct70



Model Overall_M1a

```
Rev_ibct4  (adj R-sq=6.74%)

 Rev_iif7  (adj R-sq=8.13%)

 Rev_ibct4  (adj R-sq=6.74%)

 Rev_ibct29 (adj R-sq=5.87%)

 Rev_ibct34 (adj R-sq=4.97%)

 Rev_ibct65 (adj R-sq=3.77%)

 Rev_ibct80 (adj R-sq=2.66%)

 Rev_ibct1  (adj R-sq=2.39%)

 Rev_ibct31 (adj R-sq=1.97%)

 Rev_ibct85 (adj R-sq=1.46%)

 Rev_ibct28 (adj R-sq=1.39%)

 Rev_ibct63 (adj R-sq=1.29%)

 Rev_ibct70 (adj R-sq=1.11%)

 Rev_ibct14 (adj R-sq=1.04%)
```

Forward stepwise approach: Step 1

Model Overall_M1a

```
. metareg ES if Filter_Overall==1, wsse(_SE) knapphartung reml


Meta-regression                                     Number of obs  =     197

REML estimate of between-study variance             tau2           =  .03104

% residual variation due to heterogeneity            I-squared_res  =  66.02%

With Knapp-Hartung modification

------------------------------------------------------------------------------

          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

-------------+----------------------------------------------------------------

       _cons |   .2234688      .0182    12.28   0.000     .1875758    .2593619

------------------------------------------------------------------------------


.
```

Forward stepwise approach: Step 2

Add Rev_iif7 (adj R-sq=8.13%)

```
. metareg ES Rev_iif7 itb if Filter_Overall==1, wsse(_SE) knapphartung reml


Meta-regression                                     Number of obs  =     197

REML estimate of between-study variance             tau2           =  .02863

% residual variation due to heterogeneity            I-squared_res  =  62.12%

Proportion of between-study variance explained      Adj R-squared  =   7.77%

Joint test for all covariates                       Model F(2,194) =    3.50

With Knapp-Hartung modification                     Prob > F       =  0.0322

------------------------------------------------------------------------------

          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

-------------+----------------------------------------------------------------

    Rev_iif7 |   .1304394   .0497706     2.62   0.009     .0322785    .2286003

         itb |  -.0184455   .0396944    -0.46   0.643    -.0967336    .0598426

       _cons |    .208304   .0220695     9.44   0.000      .164777     .251831

------------------------------------------------------------------------------


.
```

Forward stepwise approach: Step 3

Add Rev_ibct4 (adj R-sq=6.74%)

```
. metareg ES Rev_iif7 Rev_ibct4 itb if Filter_Overall==1, wsse(_SE) knapphartung reml


Meta-regression                                         Number of obs  =     197

REML estimate of between-study variance                 tau2           =  .02723

% residual variation due to heterogeneity                I-squared_res  =  57.83%

Proportion of between-study variance explained          Adj R-squared  =  12.29%

Joint test for all covariates                           Model F(3,193) =    3.79

With Knapp-Hartung modification                         Prob > F       =  0.0113

------------------------------------------------------------------------------

          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

-------------+----------------------------------------------------------------

    Rev_iif7 |   .1124512   .0498583     2.26   0.025     .0141141    .2107884

   Rev_ibct4 |   .1014509   .0503877     2.01   0.045     .0020697    .2008321

         itb |  -.0130939   .0392614    -0.33   0.739    -.0905304    .0643426

       _cons |   .1940454   .0227971     8.51   0.000      .149082    .2390088

------------------------------------------------------------------------------


.
```

Forward stepwise approach: Step 4

Add Rev_ibct29 (adj R-sq=5.87%)

```
. metareg ES Rev_iif7 Rev_ibct4 Rev_ibct29 itb if Filter_Overall==1, wsse(_SE) knapphartung reml


Meta-regression                                         Number of obs  =     197

REML estimate of between-study variance                 tau2           =   .0243

% residual variation due to heterogeneity                I-squared_res  =  55.00%

Proportion of between-study variance explained          Adj R-squared  =  21.71%

Joint test for all covariates                           Model F(4,192) =    5.52

With Knapp-Hartung modification                         Prob > F       =  0.0003

------------------------------------------------------------------------------

          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

-------------+----------------------------------------------------------------

    Rev_iif7 |   .1202664   .0481282     2.50   0.013     .0253386    .2151942

   Rev_ibct4 |   .1082394   .0489606     2.21   0.028     .0116697    .2048091
```

```
  Rev_ibct29 |   .2524516   .0819865     3.08   0.002     .0907418    .4141615
         itb |   -.036234   .0387881    -0.93   0.351    -.1127395    .0402715
       _cons |   .1854227   .0221972     8.35   0.000      .141641    .2292043
------------------------------------------------------------------------------
```

.

Forward stepwise approach: Step 5

Add Rev_ibct34 (adj R-sq=4.97%)

```
. metareg ES Rev_iif7 Rev_ibct4 Rev_ibct29 Rev_ibct34 itb if Filter_Overall==1, wsse(_SE)
knapphartung reml


Meta-regression                                         Number of obs  =     197
REML estimate of between-study variance                 tau2           =  .02448
% residual variation due to heterogeneity               I-squared_res  =  55.17%
Proportion of between-study variance explained          Adj R-squared  =  21.14%
Joint test for all covariates                           Model F(5,191) =    4.44
With Knapp-Hartung modification                         Prob > F       =  0.0008
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif7 |   .1502201   .0755374     1.99   0.048     .0012254    .2992148
   Rev_ibct4 |   .1139754   .0503474     2.26   0.025     .0146671    .2132838
  Rev_ibct29 |   .2506504    .082189     3.05   0.003     .0885357    .4127651
  Rev_ibct34 |  -.0361143   .0697863    -0.52   0.605    -.1737652    .1015365
         itb |  -.0362457   .0388624    -0.93   0.352    -.1129004    .0404089
       _cons |    .187328   .0225165     8.32   0.000     .1429151     .231741
------------------------------------------------------------------------------
```

.

Forward stepwise approach: Step 6

Remove Rev_ibct34; Rev_ibct65 (adj R-sq=3.77%)

```
. metareg ES Rev_iif7 Rev_ibct4 Rev_ibct29 Rev_ibct65 itb if Filter_Overall==1, wsse(_SE)
knapphartung reml


Meta-regression                                         Number of obs  =     197
REML estimate of between-study variance                 tau2           =  .02315
```

```
% residual variation due to heterogeneity             I-squared_res  =  52.93%

Proportion of between-study variance explained        Adj R-squared  =  25.43%

Joint test for all covariates                         Model F(5,191) =    5.16

With Knapp-Hartung modification                       Prob > F       =  0.0002

------------------------------------------------------------------------------

          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

-------------+----------------------------------------------------------------

    Rev_iif7 |   .1075978   .0480791     2.24   0.026     .0127637     .202432

   Rev_ibct4 |   .1226326   .0490254     2.50   0.013     .0259319    .2193333

  Rev_ibct29 |   .2340187   .0818976     2.86   0.005     .0724788    .3955585

  Rev_ibct65 |   .0939425   .0558933     1.68   0.094     -.016305      .20419

         itb |  -.0436757    .038536    -1.13   0.258    -.1196865    .0323352

       _cons |   .1773982   .0223375     7.94   0.000     .1333384     .221458

------------------------------------------------------------------------------
```

.

Forward stepwise approach: Step 7

Add Rev_ibct80 (adj R-sq=2.66%)

```
. metareg ES Rev_iif7 Rev_ibct4 Rev_ibct29 Rev_ibct65 Rev_ibct80 itb if Filter_Overall==1,
wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =     197

REML estimate of between-study variance               tau2           =   .0224

% residual variation due to heterogeneity             I-squared_res  =  51.44%

Proportion of between-study variance explained        Adj R-squared  =  27.84%

Joint test for all covariates                         Model F(6,190) =    5.00

With Knapp-Hartung modification                       Prob > F       =  0.0001

------------------------------------------------------------------------------

          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

-------------+----------------------------------------------------------------

    Rev_iif7 |   .1076703   .0475967     2.26   0.025     .0137845    .2015561

   Rev_ibct4 |    .115816   .0487939     2.37   0.019     .0195688    .2120633

  Rev_ibct29 |   .2307474   .0813003     2.84   0.005     .0703801    .3911146

  Rev_ibct65 |   .0900876    .055403     1.63   0.106    -.0191963    .1993715

  Rev_ibct80 |  -.0803965   .0427696    -1.88   0.062    -.1647607    .0039677
```

```
         itb |  -.0459469   .0382315    -1.20   0.231    -.1213595    .0294657
       _cons |   .1943445    .024002     8.10   0.000     .1469999    .2416892
------------------------------------------------------------------------------
```

.

Forward stepwise approach: Step 8

Add Rev_ibct1 (adj R-sq=2.39%)

```
. metareg ES Rev_iif7 Rev_ibct4 Rev_ibct29 Rev_ibct34 Rev_ibct65 Rev_ibct80 Rev_ibct1 itb if
Filter_Overall==1, wsse(_SE) knapphartung reml


Meta-regression                                         Number of obs  =     197
REML estimate of between-study variance                 tau2           =  .02293
% residual variation due to heterogeneity               I-squared_res  =  51.27%
Proportion of between-study variance explained          Adj R-squared  =  26.14%
Joint test for all covariates                           Model F(8,188) =    3.81
With Knapp-Hartung modification                         Prob > F       =  0.0004
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif7 |   .1310576   .0763163     1.72   0.088    -.0194887    .2816039
   Rev_ibct4 |   .1226749   .0508644     2.41   0.017     .0223367    .2230132
  Rev_ibct29 |   .2213599   .0822288     2.69   0.008     .0591503    .3835695
  Rev_ibct34 |  -.0378789   .0707569    -0.54   0.593    -.1774585    .1017007
  Rev_ibct65 |   .0912384   .0570888     1.60   0.112    -.0213785    .2038553
  Rev_ibct80 |  -.0738767   .0435571    -1.70   0.092    -.1598002    .0120468
   Rev_ibct1 |   .0566469   .0734978     0.77   0.442    -.0883395    .2016334
         itb |  -.0442735   .0385421    -1.15   0.252     -.120304     .031757
       _cons |   .1927175    .024523     7.86   0.000     .1443419    .2410931
------------------------------------------------------------------------------
```

.

Forward stepwise approach: Step 9

Remove Rev_ibct34; Add Rev_ibct31 (adj R-sq=1.97%)

```
. metareg ES Rev_iif7 Rev_ibct4 Rev_ibct29 Rev_ibct65 Rev_ibct80 Rev_ibct1 Rev_ibct31 itb if
Filter_Overall==1, wsse(_SE) knapphartung reml
```

```
Meta-regression                                     Number of obs  =     197
REML estimate of between-study variance             tau2           =  .02278
% residual variation due to heterogeneity           I-squared_res  =  51.37%
Proportion of between-study variance explained      Adj R-squared  =  26.61%
Joint test for all covariates                       Model F(8,188) =    3.97
With Knapp-Hartung modification                     Prob > F       =  0.0002
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif7 |   .0776892   .0520161     1.49   0.137     -.024921    .1802994
   Rev_ibct4 |   .1096061   .0492572     2.23   0.027     .0124382    .2067739
  Rev_ibct29 |   .2207248   .0820418     2.69   0.008      .058884    .3825657
  Rev_ibct65 |   .0895381   .0560094     1.60   0.112    -.0209496    .2000258
  Rev_ibct80 |  -.0888888   .0445071    -2.00   0.047    -.1766863   -.0010913
   Rev_ibct1 |   .0684879   .0731114     0.94   0.350    -.0757363    .2127121
  Rev_ibct31 |   .1595039   .1318107     1.21   0.228    -.1005141    .4195219
         itb |  -.0394528   .0386321    -1.02   0.308    -.1156609    .0367554
       _cons |   .1929729   .0244209     7.90   0.000     .1447987    .2411471
------------------------------------------------------------------------------
```

.

Forward stepwise approach: Step 10

Remove Rev_ibct1; Add Rev_ibct85 (adj R-sq=1.46%)

```
. metareg ES Rev_iif7 Rev_ibct4 Rev_ibct29 Rev_ibct65 Rev_ibct80 Rev_ibct31 Rev_ibct85 itb if
Filter_Overall==1, wsse(_SE) knapphartung reml
```

```
Meta-regression                                     Number of obs  =     197
REML estimate of between-study variance             tau2           =  .02257
% residual variation due to heterogeneity           I-squared_res  =  51.65%
Proportion of between-study variance explained      Adj R-squared  =  27.29%
Joint test for all covariates                       Model F(8,188) =    3.91
With Knapp-Hartung modification                     Prob > F       =  0.0003
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
```

```
    Rev_iif7 |    .088448   .0507799     1.74   0.083    -.0117235    .1886195
   Rev_ibct4 |   .1076109   .0494365     2.18   0.031     .0100893    .2051325
  Rev_ibct29 |   .2252123   .0818403     2.75   0.007     .0637691    .3866556
  Rev_ibct65 |   .0922879   .0558339     1.65   0.100    -.0178535    .2024294
  Rev_ibct80 |  -.0888046    .045161    -1.97   0.051     -.177892    .0002829
  Rev_ibct31 |   .1439748      .1315     1.09   0.275    -.1154303    .4033799
  Rev_ibct85 |  -.0208551   .0492377    -0.42   0.672    -.1179845    .0762744
         itb |  -.0405124   .0386199    -1.05   0.296    -.1166965    .0356717
       _cons |   .1987584   .0248561     8.00   0.000     .1497257    .2477911
------------------------------------------------------------------------------
```

.

Forward stepwise approach: Step 11

Add Rev_ibct28 (adj R-sq=1.39%)

```
. metareg ES Rev_iif7 Rev_ibct4 Rev_ibct29 Rev_ibct65 Rev_ibct80 Rev_ibct31 Rev_ibct85
Rev_ibct28 itb if Filter_Overall==1, wsse(_SE) knapphartung reml


Meta-regression                                     Number of obs  =     197
REML estimate of between-study variance             tau2           =  .02272
% residual variation due to heterogeneity           I-squared_res  =  51.54%
Proportion of between-study variance explained      Adj R-squared  =  26.81%
Joint test for all covariates                       Model F(9,187) =    3.48
With Knapp-Hartung modification                     Prob > F       =  0.0005
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif7 |   .0834184    .052038     1.60   0.111    -.0192387    .1860754
   Rev_ibct4 |   .1097356   .0497703     2.20   0.029     .0115523     .207919
  Rev_ibct29 |    .227297   .0821158     2.77   0.006     .0653046    .3892893
  Rev_ibct65 |   .0858312   .0576625     1.49   0.138    -.0279214    .1995838
  Rev_ibct80 |  -.0874405   .0453448    -1.93   0.055    -.1768935    .0020125
  Rev_ibct31 |   .1486429   .1321658     1.12   0.262    -.1120846    .4093705
  Rev_ibct85 |   -.019576   .0494015    -0.40   0.692    -.1170319      .07788
  Rev_ibct28 |   .0436819   .0966174     0.45   0.652    -.1469183     .234282
         itb |  -.0374203    .039256    -0.95   0.342    -.1148619    .0400213
```

```
       _cons |    .196922   .0252641     7.79   0.000     .1470828    .2467612
------------------------------------------------------------------------------
.
```

Forward stepwise approach: Step 12

Remove Rev_ibct85; Add Rev_ibct63 (adj R-sq=1.29%)

```
. metareg ES Rev_iif7 Rev_ibct4 Rev_ibct29 Rev_ibct65 Rev_ibct80 Rev_ibct31 Rev_ibct28
Rev_ibct63 itb if Filter_Overall==1, wsse(_SE) knapphartung reml


Meta-regression                                         Number of obs  =     197

REML estimate of between-study variance                 tau2           =  .02209

% residual variation due to heterogeneity                I-squared_res  =  51.10%

Proportion of between-study variance explained          Adj R-squared  =  28.84%

Joint test for all covariates                           Model F(9,187) =    3.73

With Knapp-Hartung modification                         Prob > F       =  0.0002

------------------------------------------------------------------------------

          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

-------------+----------------------------------------------------------------

    Rev_iif7 |   .0738402   .0520303     1.42   0.158    -.0288017     .176482

   Rev_ibct4 |    .124484   .0499561     2.49   0.014     .0259341    .2230339

  Rev_ibct29 |   .2377525   .0813388     2.92   0.004     .0772929     .398212

  Rev_ibct65 |     .08558    .057113     1.50   0.136    -.0270886    .1982485

  Rev_ibct80 |  -.0832862   .0444915    -1.87   0.063    -.1710559    .0044835

  Rev_ibct31 |   .1622233    .130623     1.24   0.216    -.0954606    .4199073

  Rev_ibct28 |   .0332605   .0962039     0.35   0.730    -.1565239    .2230448

  Rev_ibct63 |   .0582784   .0448245     1.30   0.195    -.0301484    .1467052

         itb |  -.0402011   .0388602    -1.03   0.302    -.1168619    .0364596

       _cons |   .1819925   .0259714     7.01   0.000      .130758     .233227

------------------------------------------------------------------------------


.
```

Forward stepwise approach: Step 13

Add Rev_ibct70 (adj R-sq=1.11%)

```
. metareg ES Rev_iif7 Rev_ibct4 Rev_ibct29 Rev_ibct65 Rev_ibct80 Rev_ibct31 Rev_ibct28
Rev_ibct63 Rev_ibct70 itb if Filter_Overall==1, wsse(_SE) knapphartung reml


Meta-regression                                         Number of obs  =     197

REML estimate of between-study variance                 tau2           =  .02238
```

```
% residual variation due to heterogeneity             I-squared_res  =  51.16%

Proportion of between-study variance explained        Adj R-squared  =  27.91%

Joint test for all covariates                         Model F(10,186)=    3.34

With Knapp-Hartung modification                       Prob > F       =  0.0005

------------------------------------------------------------------------------

          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

-------------+----------------------------------------------------------------

    Rev_iif7 |   .0734661   .0522377     1.41   0.161    -.0295884    .1765207

   Rev_ibct4 |   .1216761   .0506496     2.40   0.017     .0217546    .2215975

  Rev_ibct29 |   .2349421   .0819144     2.87   0.005     .0733413    .3965429

  Rev_ibct65 |     .08241   .0579771     1.42   0.157    -.0319673    .1967873

  Rev_ibct80 |  -.0832643   .0446465    -1.86   0.064     -.171343    .0048143

  Rev_ibct31 |   .1597945   .1313546     1.22   0.225    -.0993418    .4189308

  Rev_ibct28 |   .0364184    .097069     0.38   0.708    -.1550794    .2279161

  Rev_ibct63 |   .0579341    .044985     1.29   0.199    -.0308123    .1466804

  Rev_ibct70 |    .022166   .0656899     0.34   0.736    -.1074271    .1517591

         itb |  -.0376992   .0396083    -0.95   0.342    -.1158385      .04044

       _cons |   .1806938   .0264416     6.83   0.000     .1285298    .2328579

------------------------------------------------------------------------------
```

.

Forward stepwise approach: Step 14

Remove Rev_ibct70; Add Rev_ibct14 (adj R-sq=1.04%)

```
. metareg ES Rev_iif7 Rev_ibct4 Rev_ibct29 Rev_ibct65 Rev_ibct80 Rev_ibct31 Rev_ibct28
Rev_ibct63 Rev_ibct14 itb if Filter_Overall==1, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =     197

REML estimate of between-study variance               tau2           =  .02211

% residual variation due to heterogeneity             I-squared_res  =  51.23%

Proportion of between-study variance explained        Adj R-squared  =  28.79%

Joint test for all covariates                         Model F(10,186)=    3.48

With Knapp-Hartung modification                       Prob > F       =  0.0003

------------------------------------------------------------------------------

          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

-------------+----------------------------------------------------------------
```

```
    Rev_iif7 |   .0732284   .0520426     1.41   0.161    -.0294412    .1758979
   Rev_ibct4 |   .1262331   .0499877     2.53   0.012     .0276174    .2248488
  Rev_ibct29 |   .2369467   .0813531     2.91   0.004     .0764532    .3974402
  Rev_ibct65 |   .0826316   .0571817     1.45   0.150    -.0301765    .1954397
  Rev_ibct80 |  -.0691099   .0462286    -1.49   0.137    -.1603096    .0220899
  Rev_ibct31 |   .1521739    .130949     1.16   0.247    -.1061623      .41051
  Rev_ibct28 |   .0322014   .0962252     0.33   0.738    -.1576316    .2220344
  Rev_ibct63 |   .0662024   .0453759     1.46   0.146    -.0233152    .1557201
  Rev_ibct14 |  -.1524114    .134678    -1.13   0.259    -.4181042    .1132813
         itb |  -.0395409   .0388704    -1.02   0.310    -.1162244    .0371426
       _cons |   .1807054   .0260009     6.95   0.000      .129411    .2319999
------------------------------------------------------------------------------
.
```

Forward stepwise approach: Final Step

Remove Rev_ibct28

```
. metareg ES Rev_iif7 Rev_ibct4 Rev_ibct29 Rev_ibct65 Rev_ibct80 Rev_ibct31 Rev_ibct63
Rev_ibct14 itb if Filter_Overall==1, wsse(_SE) knapphartung reml


Meta-regression                                     Number of obs  =     197
REML estimate of between-study variance             tau2           =  .02189
% residual variation due to heterogeneity           I-squared_res  =  51.24%
Proportion of between-study variance explained      Adj R-squared  =  29.48%
Joint test for all covariates                       Model F(9,187) =    3.89
With Knapp-Hartung modification                     Prob > F       =  0.0002
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif7 |   .0766618   .0509342     1.51   0.134    -.0238177    .1771412
   Rev_ibct4 |   .1252424   .0497375     2.52   0.013     .0271237    .2233611
  Rev_ibct29 |   .2358722   .0810782     2.91   0.004     .0759268    .3958177
  Rev_ibct65 |   .0874962   .0553108     1.58   0.115    -.0216172    .1966096
  Rev_ibct80 |  -.0700526   .0460238    -1.52   0.130    -.1608451      .02074
  Rev_ibct31 |   .1491931   .1302664     1.15   0.254    -.1077876    .4061737
  Rev_ibct63 |   .0678563   .0450051     1.51   0.133    -.0209267    .1566393
  Rev_ibct14 |  -.1527893   .1345034    -1.14   0.257    -.4181284    .1125498
```

```
         itb |  -.0419549   .0381624    -1.10   0.273    -.1172391    .0333293
       _cons |   .1815131   .0257756     7.04   0.000     .1306648    .2323614
------------------------------------------------------------------------------.
```

.

Model Overall_M1a_s (Sensitivity analysis: Long-term data only)

```
. tabulate FU_Cat if Filter_Overall==1

FU Category |      Freq.     Percent        Cum.
------------+-----------------------------------
      Short |        126       63.96       63.96
       Long |         71       36.04      100.00
------------+-----------------------------------
      Total |        197      100.00
```

.

Forward stepwise approach: Step 1

Empty model

```
. metareg ES if Filter_Overall==1 & FU_Cat==1, wsse(_SE) knapphartung reml

Meta-regression                                         Number of obs  =      71
REML estimate of between-study variance                 tau2           =   .0325
% residual variation due to heterogeneity               I-squared_res  =  76.43%
With Knapp-Hartung modification
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       _cons |   .1780105   .0292655     6.08   0.000     .1196423    .2363788
------------------------------------------------------------------------------
```

.

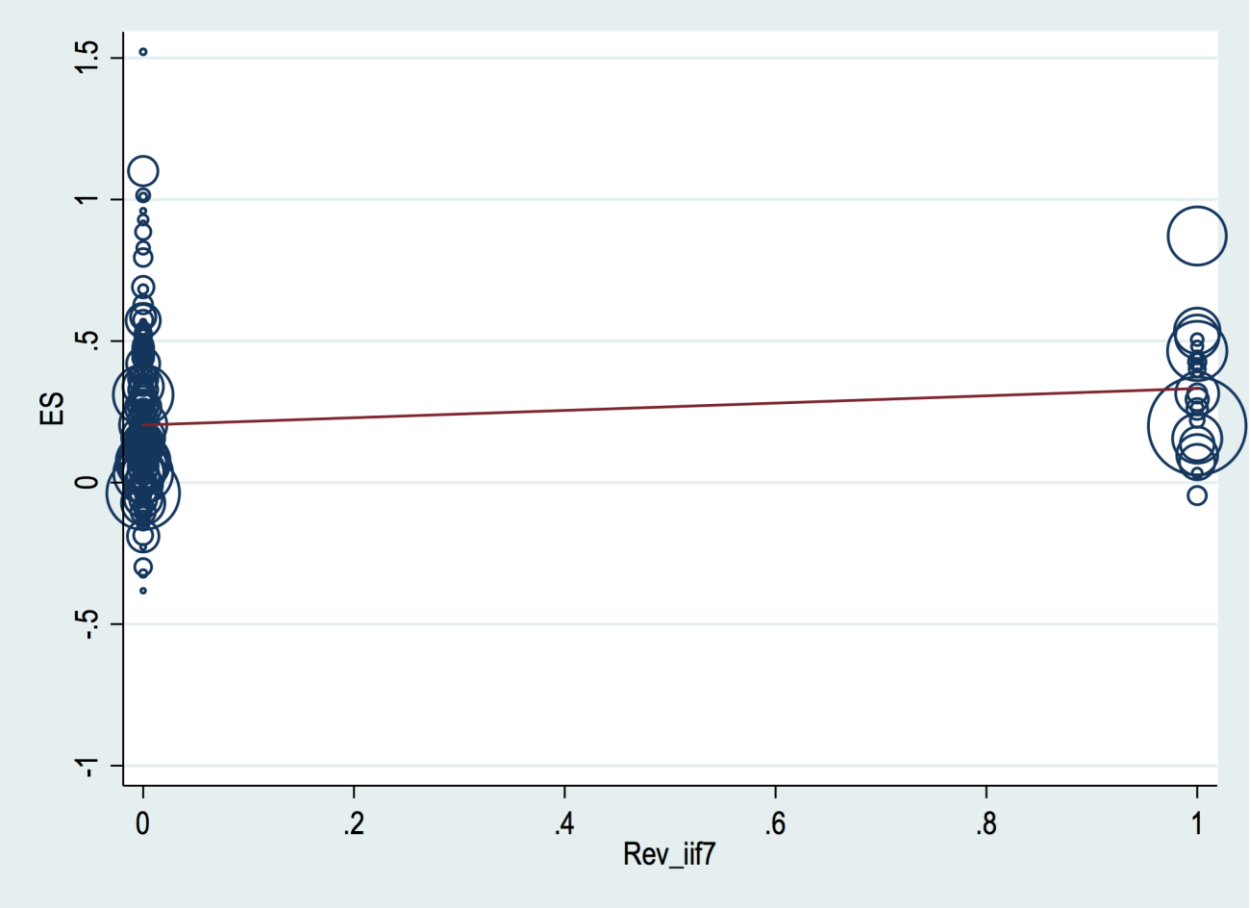
Forward stepwise approach: Final Step

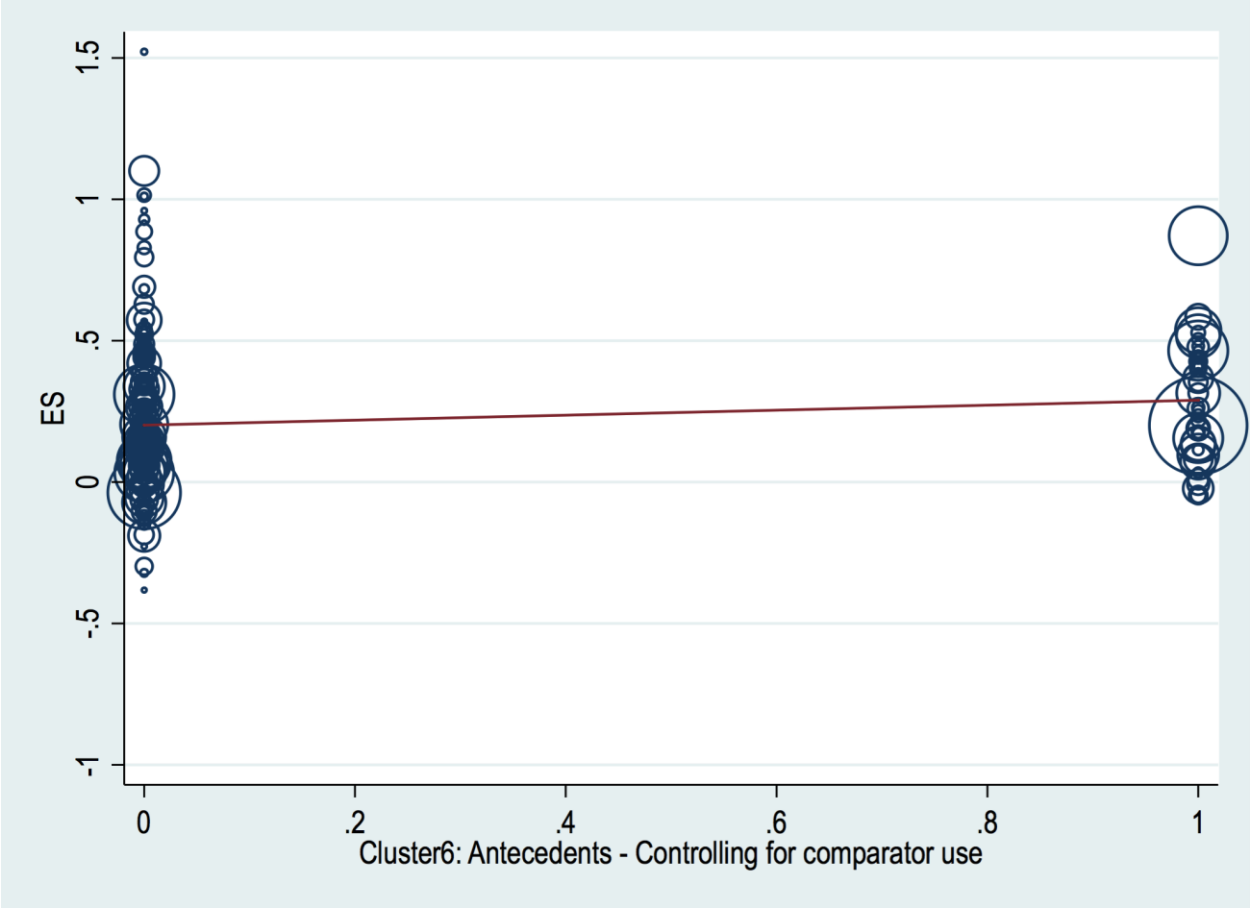
```
. metareg ES Rev_iif7 Rev_ibct4 Rev_ibct29 Rev_ibct65 Rev_ibct80 Rev_ibct31 Rev_ibct63
Rev_ibct14 itb if Filter_

> Overall==1 & FU_Cat==1, wsse(_SE) knapphartung reml
```

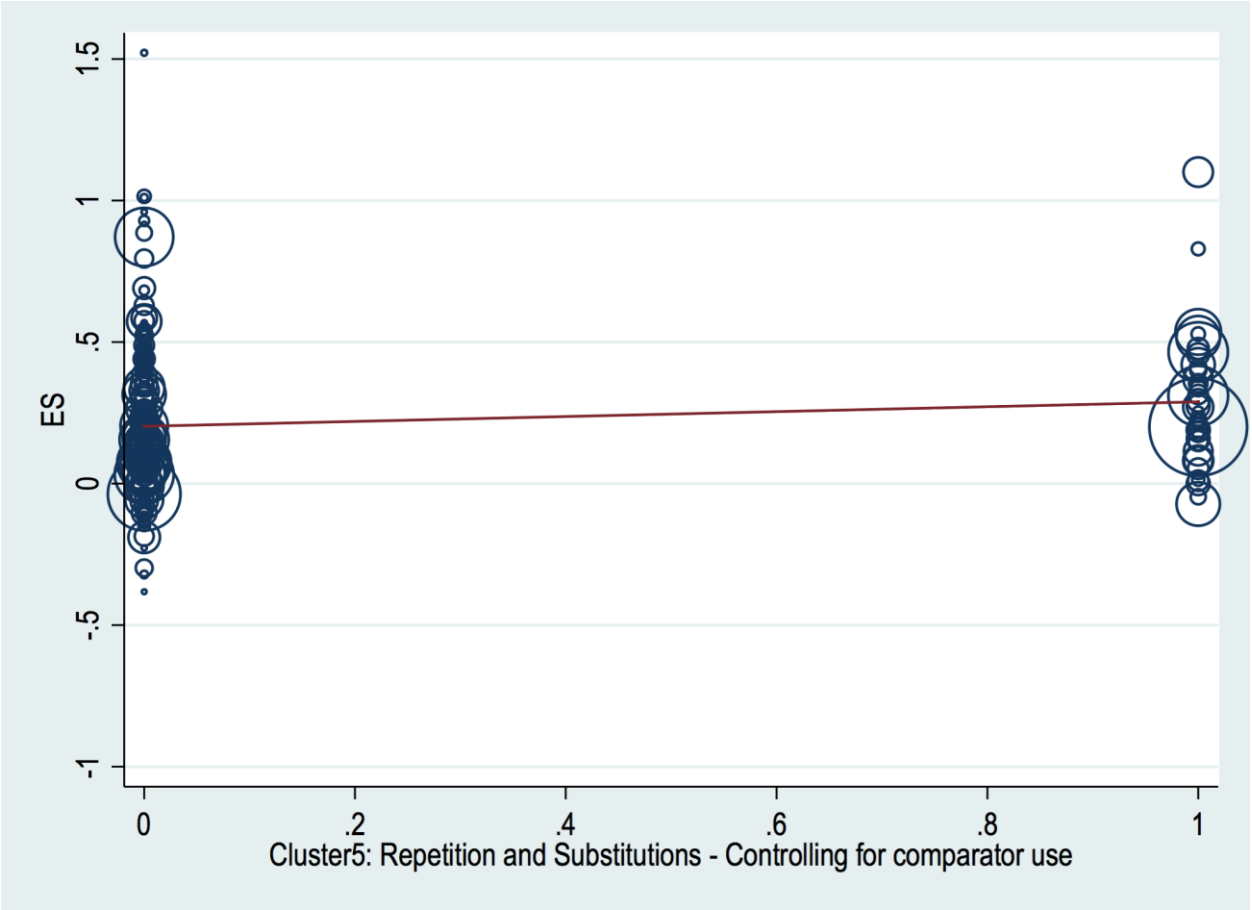
```
Meta-regression                                       Number of obs  =      71
REML estimate of between-study variance               tau2           =  .01733
% residual variation due to heterogeneity             I-squared_res  =  49.99%
Proportion of between-study variance explained        Adj R-squared  =  46.69%
Joint test for all covariates                         Model F(9,61)  =    3.63
With Knapp-Hartung modification                       Prob > F       =  0.0011
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif7 |   .1582346   .0748966     2.11   0.039     .0084695    .3079996
   Rev_ibct4 |   .2042239   .0772326     2.64   0.010     .0497877      .35866
  Rev_ibct29 |   .2198841   .1520152     1.45   0.153    -.0840891    .5238573
  Rev_ibct65 |   .0641198   .1014819     0.63   0.530    -.1388058    .2670454
  Rev_ibct80 |  -.0093258   .0589348    -0.16   0.875    -.1271733    .1085216
  Rev_ibct31 |   .1796168   .2483319     0.72   0.472    -.3169535    .6761871
  Rev_ibct63 |   .1672553   .0785951     2.13   0.037     .0100947    .3244158
  Rev_ibct14 |  -.2049034   .1799359    -1.14   0.259    -.5647076    .1549007
         itb |  -.0615147   .0759866    -0.81   0.421    -.2134594    .0904299
       _cons |   .0888813   .0390353     2.28   0.026     .0108254    .1669373
------------------------------------------------------------------------------
```

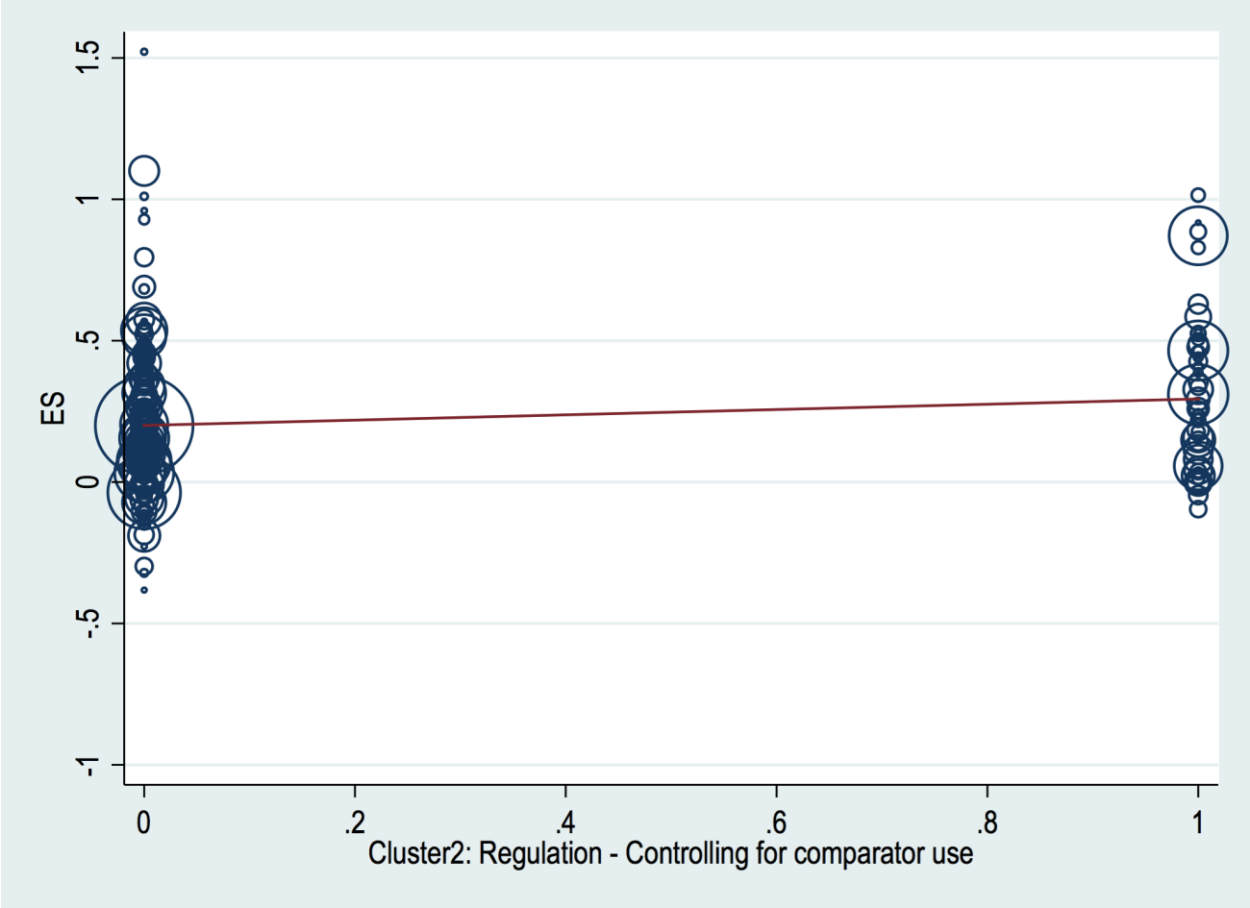
MULTIVARIATE META-ANALYSIS - CONTROLLING FOR BCT IN CONTROL GROUP USING REVISED METHOD: CLUSTERS AND IFS

Bubble plots for covariates entered into meta-regression




ES
1.5
1
.5
0
-.5
-1
0
.2
.4
.6
.8
1
Cluster6: Antecedents - Controlling for comparator use


ES
1.5
1
.5
0
-.5
-1
0
.2
.4
.6
.8
1
Cluster5: Repetition and Substitutions - Controlling for comparator use



Model Overall_M1b (overall clusters and IFs)

.

```
Rev_iif7 (adj R-sq=8.13%)

Rev_Cluster6_Ant (adj R-sq=5.71%)

Rev_Cluster5_RS (adj R-sq=5.58%)

Rev_Cluster2_Reg  (adj R-sq=4.01%)
```

Forward stepwise approach: Step 1

Empty model

```
. metareg ES if Filter_Overall==1, wsse(_SE) knapphartung reml


Meta-regression                                    Number of obs  =     197

REML estimate of between-study variance            tau2           =  .03104

% residual variation due to heterogeneity           I-squared_res  =  66.02%

With Knapp-Hartung modification

------------------------------------------------------------------------------

          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

-------------+----------------------------------------------------------------
```

```
       _cons |   .2234688      .0182    12.28   0.000     .1875758    .2593619
------------------------------------------------------------------------------


.
```

Forward stepwise approach: Step 2

Add Rev_iif7 (adj R-sq=8.13%)

```
. metareg ES Rev_iif7 itb if Filter_Overall==1, wsse(_SE) knapphartung reml


Meta-regression                                         Number of obs  =     197
REML estimate of between-study variance                 tau2           =  .02863
% residual variation due to heterogeneity               I-squared_res  =  62.12%
Proportion of between-study variance explained          Adj R-squared  =   7.77%
Joint test for all covariates                           Model F(2,194) =    3.50
With Knapp-Hartung modification                         Prob > F       =  0.0322
------------------------------------------------------------------------------
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
    Rev_iif7 |   .1304394   .0497706     2.62   0.009     .0322785    .2286003
         itb |  -.0184455   .0396944    -0.46   0.643    -.0967336    .0598426
       _cons |    .208304   .0220695     9.44   0.000      .164777     .251831
------------------------------------------------------------------------------


.
```

Forward stepwise approach: Step 3

Add Rev_Cluster6_Ant (adj R-sq=5.71%)

```
. metareg ES Rev_iif7 Rev_Cluster6_Ant itb if Filter_Overall==1, wsse(_SE) knapphartung reml


Meta-regression                                         Number of obs  =     197
REML estimate of between-study variance                 tau2           =  .02875
% residual variation due to heterogeneity               I-squared_res  =  62.15%
Proportion of between-study variance explained          Adj R-squared  =   7.40%
Joint test for all covariates                           Model F(3,193) =    2.41
With Knapp-Hartung modification                         Prob > F       =  0.0684
------------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
```

```
-----------------+----------------------------------------------------------------
        Rev_iif7 |   .1057242   .0695784     1.52   0.130    -.0315074    .2429558
Rev_Cluster6_Ant |   .0294438   .0580024     0.51   0.612    -.0849561    .1438437
             itb |  -.0202597    .039904    -0.51   0.612    -.0989636    .0584442
           _cons |   .2053409    .022874     8.98   0.000     .1602258    .2504559
-------------------------------------------------------------------------------


.
```

Forward stepwise approach: Step 4

Remove Rev_Cluster6_Ant; add Rev_Cluster5_RS (adj R-sq=5.58%)

```
. metareg ES Rev_iif7 Rev_Cluster5_RS itb if Filter_Overall==1, wsse(_SE) knapphartung reml


Meta-regression                                         Number of obs  =     197
REML estimate of between-study variance                 tau2           =  .02737
% residual variation due to heterogeneity               I-squared_res  =  61.66%
Proportion of between-study variance explained          Adj R-squared  =  11.84%
Joint test for all covariates                           Model F(3,193) =    3.55
With Knapp-Hartung modification                         Prob > F       =  0.0154
------------------------------------------------------------------------------
             ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
----------------+-------------------------------------------------------------
       Rev_iif7 |   .1181992   .0495617     2.38   0.018     .0204472    .2159512
Rev_Cluster5_RS |    .076939    .041889     1.84   0.068    -.0056799    .1595579
            itb |  -.0267893   .0394507    -0.68   0.498    -.1045991    .0510205
          _cons |   .1936756   .0231082     8.38   0.000     .1480986    .2392526
------------------------------------------------------------------------------


.
```

Forward stepwise approach: Final Step

Add Rev_Cluster2_Reg (adj R-sq=4.01%)

```
. metareg ES Rev_iif7 Rev_Cluster5_RS Rev_Cluster2_Reg itb if Filter_Overall==1, wsse(_SE)
knapphartung reml


Meta-regression                                         Number of obs  =     197
REML estimate of between-study variance                 tau2           =  .02667
```

```
% residual variation due to heterogeneity             I-squared_res  =  58.94%

Proportion of between-study variance explained        Adj R-squared  =  14.08%

Joint test for all covariates                         Model F(4,192) =    3.55

With Knapp-Hartung modification                       Prob > F       =  0.0080

------------------------------------------------------------------------------

              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]

-----------------+------------------------------------------------------------

        Rev_iif7 |    .107743   .0495184     2.18   0.031      .010073    .2054129

 Rev_Cluster5_RS |   .0710411   .0417213     1.70   0.090    -.0112498     .153332

Rev_Cluster2_Reg |   .0748697    .041253     1.81   0.071    -.0064976     .156237

             itb |  -.0220594   .0392758    -0.56   0.575    -.0995269     .055408

           _cons |    .176984   .0246454     7.18   0.000     .1283734    .2255946

------------------------------------------------------------------------------
```

.

Model Overall_M1b_s (Sensitivity analysis: Long-term data only)

```
. tabulate FU_Cat if Filter_Overall==1


FU Category |      Freq.     Percent        Cum.

------------+-----------------------------------

      Short |        126       63.96       63.96

       Long |         71       36.04      100.00

------------+-----------------------------------

      Total |        197      100.00
```

.

Forward stepwise approach: Step 1

Empty model

```
. metareg ES if Filter_Overall==1 & FU_Cat==1, wsse(_SE) knapphartung reml


Meta-regression                                       Number of obs  =      71

REML estimate of between-study variance               tau2           =   .0325

% residual variation due to heterogeneity             I-squared_res  =  76.43%

With Knapp-Hartung modification

------------------------------------------------------------------------------
```

```
          ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       _cons |   .1780105   .0292655     6.08   0.000     .1196423    .2363788
------------------------------------------------------------------------------

.
```

Forward stepwise approach: Final Step

```
. metareg ES Rev_iif7 Rev_Cluster5_RS Rev_Cluster2_Reg itb if Filter_Overall==1 & FU_Cat==1,
wsse(_SE) knapphartung reml


Meta-regression                                         Number of obs  =      71
REML estimate of between-study variance                 tau2           =    .021
% residual variation due to heterogeneity               I-squared_res  =  58.50%
Proportion of between-study variance explained          Adj R-squared  =  35.39%
Joint test for all covariates                           Model F(4,66)  =    5.02
With Knapp-Hartung modification                         Prob > F       =  0.0014
------------------------------------------------------------------------------------
              ES |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------------+------------------------------------------------------------------
        Rev_iif7 |   .2236121   .0685047     3.26   0.002      .086838    .3603861
 Rev_Cluster5_RS |   .0704008   .0637872     1.10   0.274    -.0569546    .1977561
Rev_Cluster2_Reg |    .111536   .0560368     1.99   0.051    -.0003452    .2234171
             itb |  -.0439837   .0680449    -0.65   0.520    -.1798398    .0918723
           _cons |   .0939331    .036772     2.55   0.013     .0205155    .1673506
------------------------------------------------------------------------------------

.

..
```