

X-META Dynamic Report

1 Introduction

1.1 What is X-meta?

X-meta is an open-sourced, well-documented and interactive toolbox for meta-analysis. There are three main components to this toolbox: the “xmeta” platform, video tutorials and documentation, and an semi-automated online analysis platform.

Xmeta package offers several functions for performing meta-analysis and visualizing outcomes, allowing users to conduct robust multivariate meta-analysis (mmeta), publication bias test (PB), outcome reporting bias test (ORB) and novel visualization tool (galaxy). Through the tutorials and documentation (e.g., sample code and references), users can have a comprehensive exploration of the features found in xmeta package and how the functions are applied to analytical work. With different available meta-analysis methods and types of datasets, the platform enables users to quickly obtain the meta-analysis results without writing any code.

Please check <https://www.xmeta.org/> to explore more features.

1.2 About the MA method and dataset

According to the uploaded dataset, this is a report for *Univariate Meta-analysis(UMA)* with *Continuous Outcomes*.

1.3 In this meta-analysis report, you can get:

1. Your uploaded data
2. Summary
3. Forest Plot with Fixed & Random Effect Model
4. Heterogeneity Detection
5. Cumulative Meta-analysis (Fixed & Random Effect Model)
6. Publication Bias Test and Adjustment

2 Dataset & Analysis

2.1 Here is the dataset you uploaded:

There are overall 17 studies in the dataset.

##	author	year	Ne	Me	Se	Nc	Mc	Sc	duration
## 1	Boner	1988	13	13.54	13.85	13	20.77	21.46	<= 3 months
## 2	Boner	1989	20	15.70	13.10	20	22.70	16.47	<= 3 months
## 3	Chudry	1987	12	21.30	13.10	12	39.70	12.90	<= 3 months
## 4	Comis	1993	12	14.50	12.20	12	31.30	15.10	<= 3 months
## 5	DeBenedictis	1994a	17	14.40	11.10	17	27.40	17.30	<= 3 months
## 6	DeBenedictis	1994b	8	14.80	18.60	8	31.40	20.60	> 3 months
## 7	DeBenedictis	1995	13	15.70	16.80	13	29.60	18.90	> 3 months
## 8	Debelic	1986	12	29.83	15.95	12	48.08	15.08	> 3 months
## 9	Henriksen	1988	12	17.50	13.10	12	47.20	16.47	> 3 months
## 10	Konig	1987	12	12.00	14.60	12	26.20	12.30	> 3 months
## 11	Morton	1992	16	15.83	13.43	16	38.36	18.01	> 3 months
## 12	Novembre	1994f	24	15.42	8.35	24	28.46	13.84	> 3 months
## 13	Novembre	1994s	19	11.00	12.40	19	26.10	14.90	> 3 months
## 14	Oseid	1995	20	14.10	9.50	20	28.90	18.00	> 3 months
## 15	Roberts	1985	9	18.90	17.70	9	38.90	18.90	> 3 months
## 16	Shaw	1985	8	10.27	7.02	8	34.43	10.96	> 3 months
## 17	Todaro	1993	13	10.10	8.90	13	23.50	4.00	> 3 months

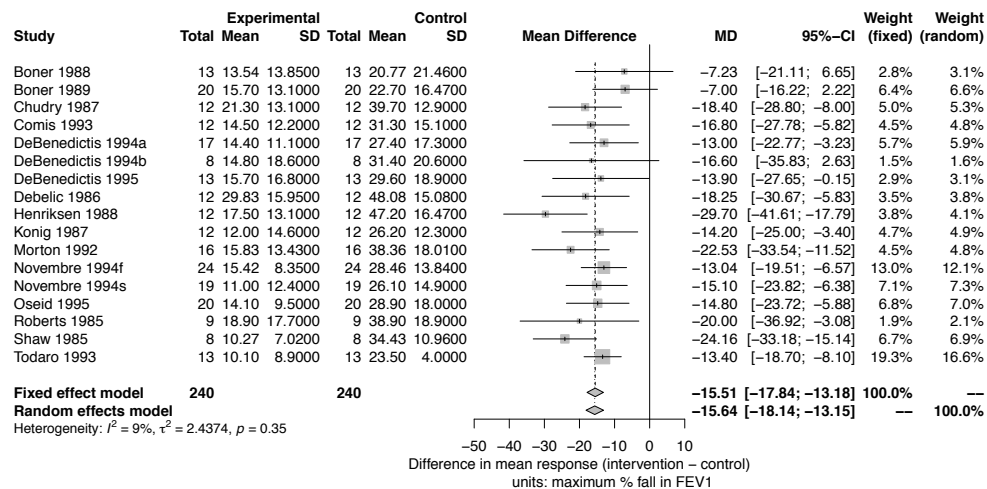
2.2 Summary:

##	MD	95%-CI	%W(fixed)	%W(random)
## Boner 1988	-7.2300	[-21.1141; 6.6541]	2.8	3.1
## Boner 1989	-7.0000	[-16.2230; 2.2230]	6.4	6.6
## Chudry 1987	-18.4000	[-28.8023; -7.9977]	5.0	5.3
## Comis 1993	-16.8000	[-27.7835; -5.8165]	4.5	4.8
## DeBenedictis 1994a	-13.0000	[-22.7710; -3.2290]	5.7	5.9
## DeBenedictis 1994b	-16.6000	[-35.8326; 2.6326]	1.5	1.6
## DeBenedictis 1995	-13.9000	[-27.6461; -0.1539]	2.9	3.1
## Debelic 1986	-18.2500	[-30.6692; -5.8308]	3.5	3.8
## Henriksen 1988	-29.7000	[-41.6068; -17.7932]	3.8	4.1
## Konig 1987	-14.2000	[-25.0013; -3.3987]	4.7	4.9
## Morton 1992	-22.5300	[-33.5382; -11.5218]	4.5	4.8
## Novembre 1994f	-13.0400	[-19.5067; -6.5733]	13.0	12.1
## Novembre 1994s	-15.1000	[-23.8163; -6.3837]	7.1	7.3
## Oseid 1995	-14.8000	[-23.7200; -5.8800]	6.8	7.0
## Roberts 1985	-20.0000	[-36.9171; -3.0829]	1.9	2.1
## Shaw 1985	-24.1600	[-33.1791; -15.1409]	6.7	6.9
## Todaro 1993	-13.4000	[-18.7042; -8.0958]	19.3	16.6
##				
##	Number of studies combined: k = 17			

2.3 Forest plot:

```
##
##                               MD                95%-CI      z  p-value
## Fixed effect model   -15.5140 [-17.8435; -13.1845] -13.05 < 0.0001
## Random effects model -15.6436 [-18.1369; -13.1502] -12.30 < 0.0001
##
## Quantifying heterogeneity:
## tau^2 = 2.4374; H = 1.05 [1.00; 1.35]; I^2 = 8.9% [0.0%; 45.3%]
##
## Test of heterogeneity:
##      Q d.f. p-value
## 17.57  16  0.3496
##
## Details on meta-analytical method:
## - Inverse variance method
## - DerSimonian-Laird estimator for tau^2
```

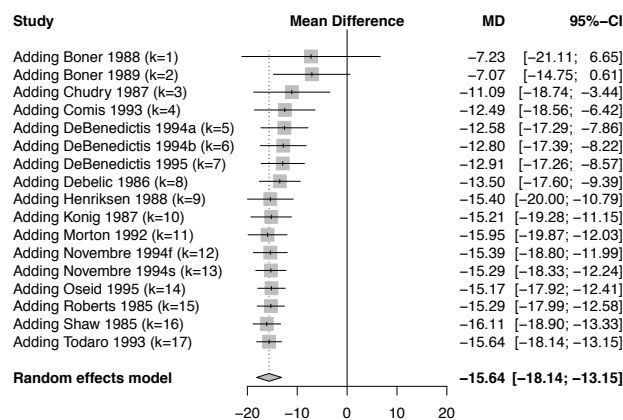
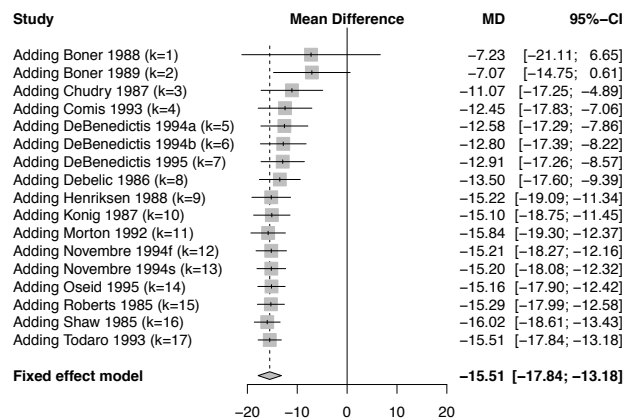
2.3 Forest plot:



2.4 Heterogeneity test statistics (you can also get these results from Summary):

The value of τ^2 is 2.4373623; the value of I^2 is 8.94%.

2.5 Sensitivity test:



2.6 Publication bias test:

