

Meta-analysis in practice

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Meta-analysis made easy

- **easymeta** is a free online application, developed with **shiny**, aimed to simplify the data analysis for meta-analysis
- Available at <https://brui.shinyapps.io/easymeta/>

The screenshot shows the 'Meta-analysis made easy' application. On the left, a sidebar titled 'Load data' contains buttons for 'Example' (red) and 'Upload data' (orange), with a message 'No data uploaded yet...'. Below is a text input field with placeholder 'Upload any data to proceed...'. At the top right, a navigation bar includes links for Home, Data preview, Forest plot, Funnel plot, Subgroup, Meta-regression, and Help. The main content area features the title 'easymeta – Meta-analysis made easy' and a large icon of a hexagon containing a diamond and a vertical scale.

Meta-analysis made easy

Load data

Example

Upload data

Browse...

No data uploaded yet...

Upload any data to proceed...

Home Data preview Forest plot Funnel plot Subgroup Meta-regression Help

easymeta – Meta-analysis made easy

A free on-line software for conducting meta-analysis under the software environment R implemented with Shiny

Dataset formats for meta-analysis

- Row data from 2x2 tables (RD, RR, OR)

trial,	year,	a,	n1,	c,	n2,	xfactor,	xcont
Lorenzo,	2001,	135,	221,	385,	991,	A,	0.52
Constanza,	2002,	59,	88,	581,	1250,	B,	-1.72
Anne-Marie,	2004,	175,	266,	359,	984,	B,	-1.02
Elisabeth,	2008,	152,	250,	383,	1016,	B,	-0.24
Simon,	2011,	35,	63,	229,	521,	A,	1.04
Neil,	2012,	38,	72,	122,	316,	A,	2.03
Milena,	2014,	118,	190,	281,	752,	B,	-0.73
Stefania,	2018,	229,	338,	433,	1204,	B,	-1.81
Manolis,	2021,	105,	180,	291,	762,	A,	0.86
Aurelio,	2022,	228,	369,	569,	1507,	A,	0.30

Data formats for easymeta

- Raw data

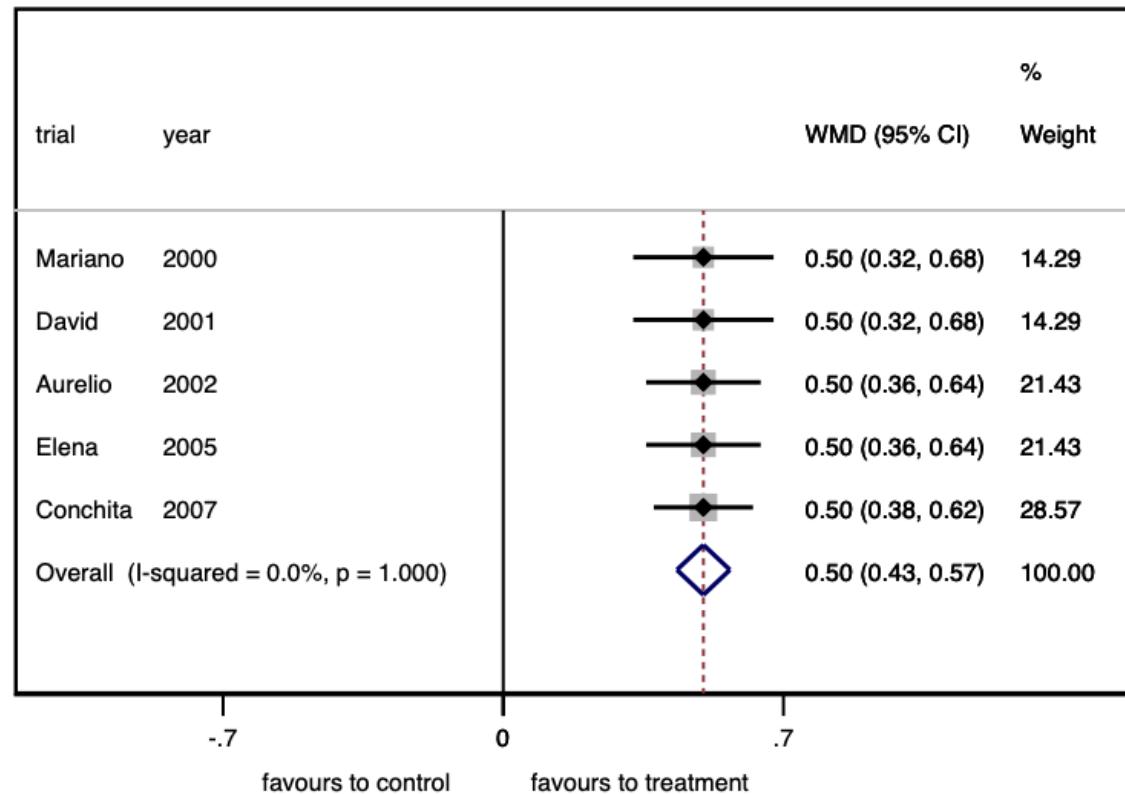
example0_raw.csv							
trial	year	n1	m1	sd1	n2	m2	sd2
Mariano	2000	10	4	0.2	10	3.5	0.2
David	2001	10	4	0.2	10	3.5	0.2
Aurelio	2002	15	4	0.2	15	3.5	0.2
Elena	2005	15	4	0.2	15	3.5	0.2
Conchita	2007	20	4	0.2	20	3.5	0.2

- Summary statistics

example0_sum.csv				
trial	year	md	low	upp
Mariano	2000	0.5	0.32	0.68
David	2001	0.5	0.32	0.68
Aurelio	2002	0.5	0.36	0.64
Elena	2005	0.5	0.36	0.64
Conchita	2007	0.5	0.38	0.62

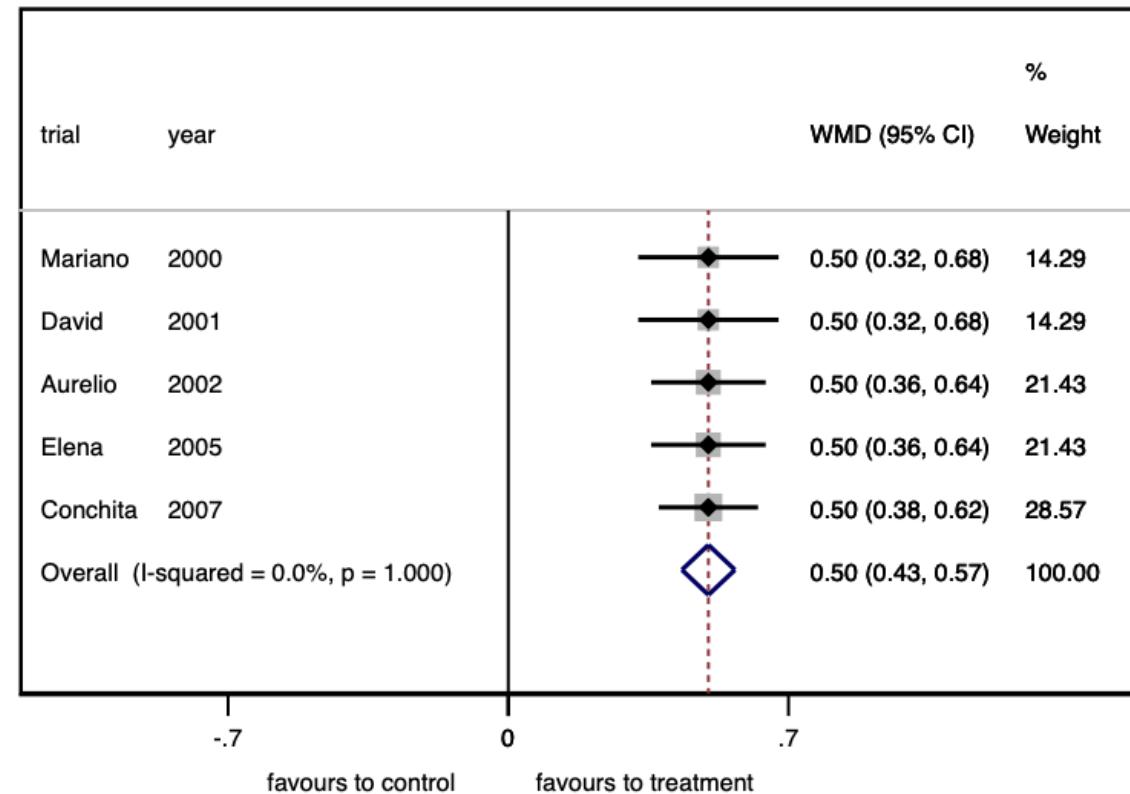
Example with raw data

- Upload data
example0_raw.csv
- Source of data
Raw data
- Type of data
Table of means
- Choose effect size
Mean Difference
- Choose statistical model
Fixed IV



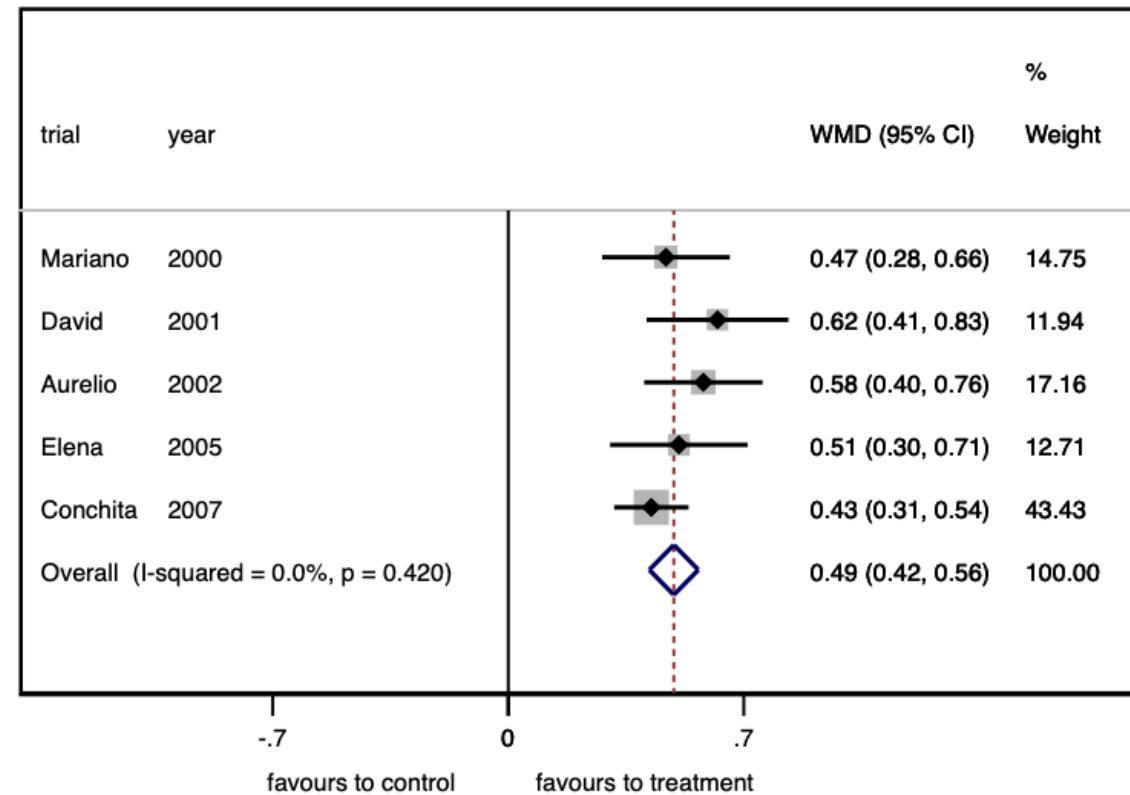
Example with summary stats data

- Upload data
example0_sum.csv
- Source of data
Summary statistics
- Choose effect size
Mean Difference
- Choose statistical model
Fixed IV



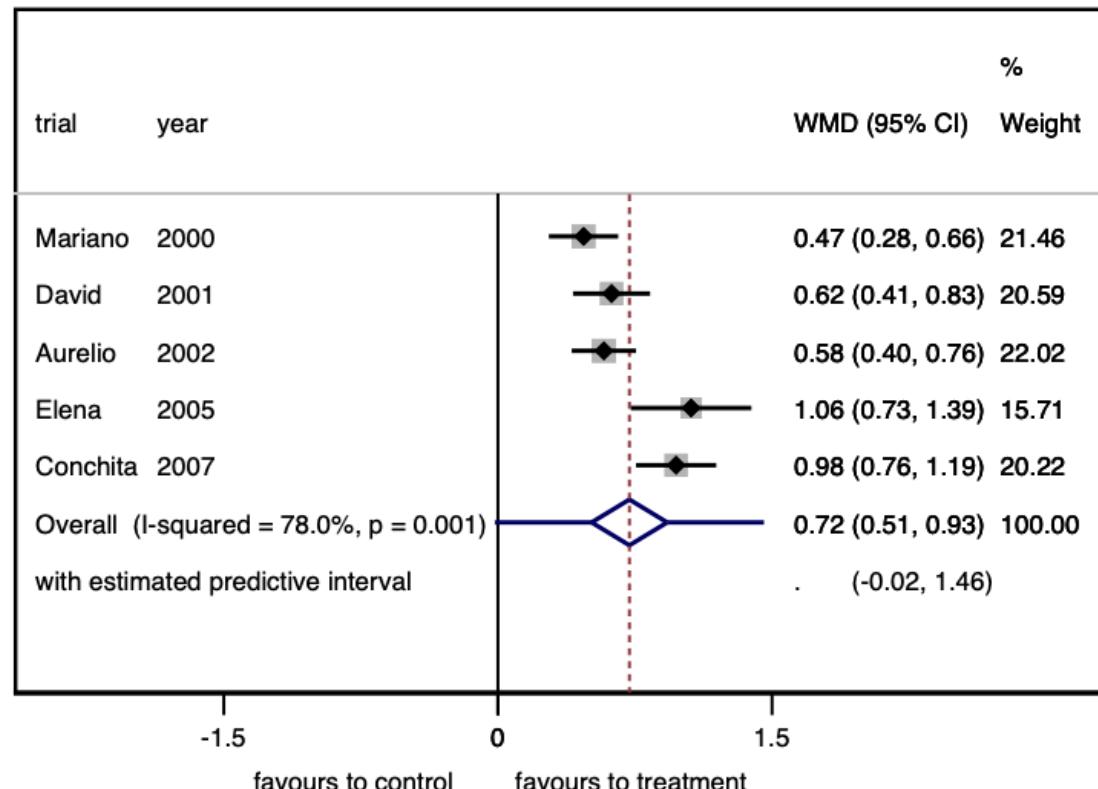
Example – Fixed effects

- Upload data
example1.csv
- Source of data
Raw data
- Type of data
Table of means
- Choose effect size
Mean Difference
- Choose statistical model
Fixed IV



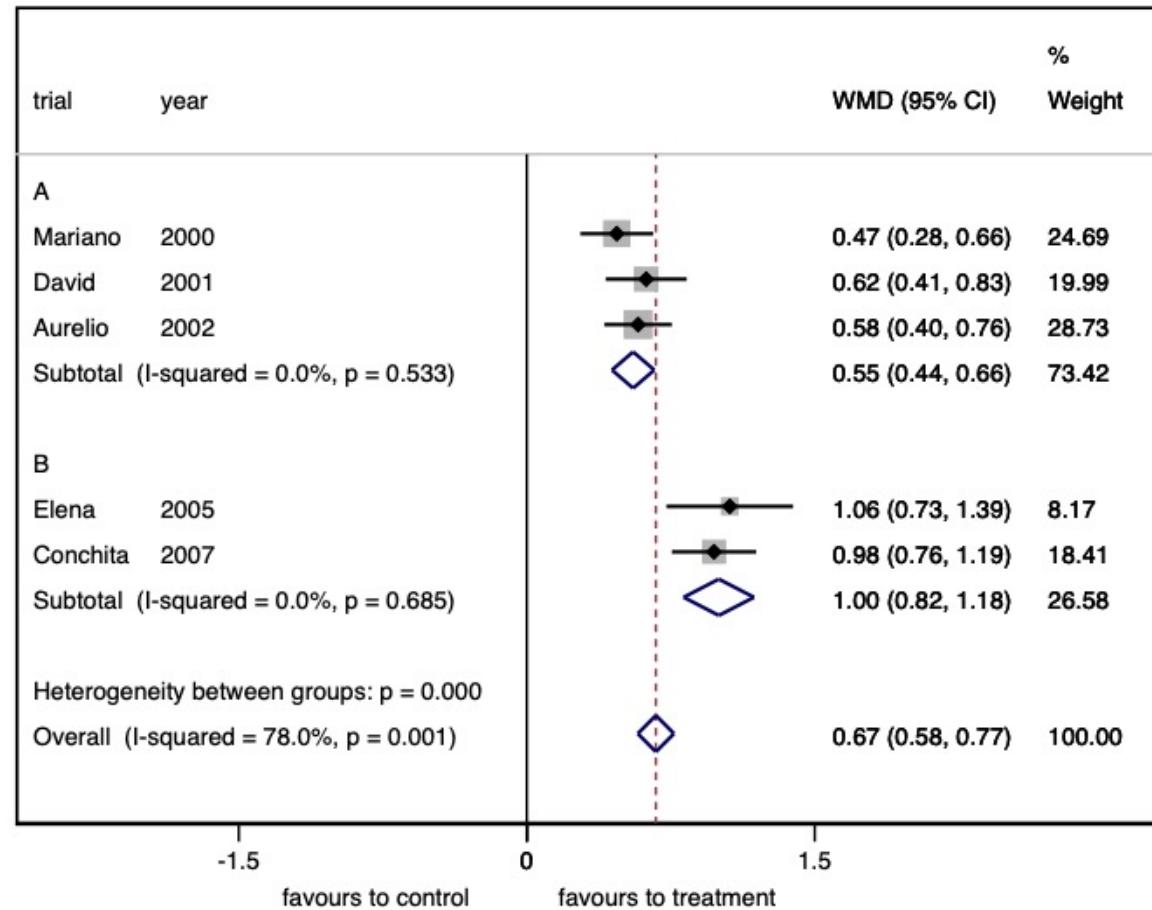
Example – Random effects

- Upload data
example2.csv
- Source of data
Raw data
- Type of data
Table of means
- Choose effect size
Mean Difference
- Choose statistical model
Random DL



Example – Subgroup meta-analysis

- Upload data
example2.csv
- Source of data
Raw data
- Type of data
Table of means
- Choose effect size
Mean Difference
- Choose statistical model
Fixed IV
- Choose variable to explain heterogeneity
group





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