Statistical Analysis Code [metaanalysis_cont]

1   Software

R、RStudio

2   Code

```
# パッケージの読み込み

library(dmetar)

library(meta)

library(metafor)


# dmetar からデータセットをロード

data(SuicidePrevention)


# metcont を使って結果をプール

m.cont <- metacont(n.e = n.e,

                   mean.e = mean.e,

                   sd.e = sd.e,

                   n.c = n.c,

                   mean.c = mean.c,

                   sd.c = sd.c,

                   studlab = author,

                   data = SuicidePrevention,

                   sm = "SMD",

                   method.smd = "Hedges",

                   fixed = FALSE,

                   random = TRUE,

                   method.tau = "REML",

                   hakn = TRUE,

                   title = "Suicide Prevention")


# 結果の確認

summary(m.cont)
```

```
# フォレストプロットの作成

m1 <- forest(

        m.cont,

        common = FALSE,

        random = TRUE,

        overall = TRUE,

        text.random = "Total (95%CI)",

        smlab = "Std. Mean Difference

        IV, Random, 95%CI",

        weight.study = "random",

        leftcols = c("studlab","mean.e","sd.e","n.e","mean.c","sd.c","n.c","w.random","effect.ci"),

        rightcols = FALSE,

        leftlabs = c("Study","Mean","SD","Total","Mean","SD","Total","Weight","Std. Mean Difference

        IV, Random, 95%CI"),

        label.e = "test food",

        label.c = "placebo",

        label.e.attach = "n.e",

        label.c.attach = "n.c",

        label.right = "Favours control",

        label.left = "Favours experimental",

        print.tau2 = TRUE,

        print.Q = TRUE,

        print.pval.Q = TRUE,

        print.I2 = TRUE,

        test.overall = FALSE,

        test.overall.common = FALSE,

        test.overall.random = FALSE,

        fs.heading = 11,

        fs.common = 11,

        fs.random = 11,

        fs.predict = 11,

        fs.common.labels = 11,

        fs.random.labels = 11,

        fs.predict.labels = 11,

        fs.study = 11,

        fs.study.labels = 11,

        fs.hetstat = 11,
```

```
        fs.test.overall = 11,

        fs.test.subgroup = 11,

        fs.test.effect.subgroup = 11,

        fs.addline = 11,

        fs.axis = 11,

        fs.smlab = 11,

        fs.xlab = 11,

        fs.lr = 11,

        ff.heading = "bold",

        ff.random = "bold",

        ff.random.labels = "bold",

        ff.study = "plain",

        ff.study.labels = "plain",

        ff.hetstat   = "bold",

        ff.test.overall = "bold",

        col.diamond = "black",

        col.square = "#1c98ac",

        col.square.lines = "#1c98ac",

        col.label.right = "red",

        col.label.left = "#1c98ac",

        Just = "left",

        just.studlab = "left",

        just.addcols = "left",

        just.addcols.left = "left",

        just.addcols.right = "left")
```

3   Output example

Study	test food Mean	SD	Total	placebo Mean	SD	Total	Weight	Std. Mean Difference IV, Random, 95%CI
Berry et al.	14.98	3.2900	90	15.54	4.4100	95	15.6%	-0.14 [-0.43; 0.15]
DeVries et al.	16.21	5.3500	77	20.13	7.4300	69	12.3%	-0.61 [-0.94; -0.28]
Fleming et al.	3.01	0.8700	30	3.13	1.2300	30	5.7%	-0.11 [-0.62; 0.40]
Hunt & Burke	19.32	6.4100	64	20.22	7.6200	65	11.5%	-0.13 [-0.47; 0.22]
McCarthy et al.	4.54	2.7500	50	5.61	2.6600	50	9.0%	-0.39 [-0.79; 0.00]
Meijer et al.	15.11	4.6300	109	16.46	5.3900	111	17.9%	-0.27 [-0.53; -0.00]
Rivera et al.	3.44	1.2600	60	3.42	1.8800	60	10.8%	0.01 [-0.35; 0.37]
Watkins et al.	7.10	0.7600	40	7.38	1.4100	40	7.4%	-0.24 [-0.68; 0.20]
Zaytsev et al.	23.74	7.2400	51	24.91	10.6500	56	9.7%	-0.13 [-0.51; 0.25]
Total (95%CI)			**571**			**576**	**100.0%**	**-0.23 [-0.37; -0.09]**

Heterogeneity: $I^2 = 7\%$, $\tau^2 = 0.0044$, $\chi^2_8 = 8.64$ ($p = 0.37$)

-0.5   0   0.5

Favours experimental   Favours control