title: "METAcode"

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output: word\_document

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> install.packages("metafor")

> library(metafor)

> LNmeta<-read.csv("~/Desktop/liunandata.csv")

>> overall<-rma.mv(yi,vi,random=list(~1|effectsizeID,~1|studyID),tdist=TRUE,data=LNmeta)

> summary(overall)

Multivariate Meta-Analysis Model (k = 9; method: REML)

logLik Deviance AIC BIC AICc

-6.3505 12.7010 18.7010 18.9393 24.7010

Variance Components:

estim sqrt nlvls fixed factor

sigma^2.1 0.2726 0.5221 9 no effectsizeID

sigma^2.2 0.0000 0.0000 3 no studyID

Test for Heterogeneity:

Q(df = 8) = 168.2979, p-val < .0001

Model Results:

estimate se tval pval ci.lb ci.ub

-0.5278 0.1782 -2.9611 0.0181 -0.9388 -0.1168 \*

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Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> Type<rma.mv(yi,vi,mods=~factor(type),random=list(~1|effectsizeID,~1|studyID),tdist=TRUE, dat=LNmeta)

> summary(Type)

Multivariate Meta-Analysis Model (k = 9; method: REML)

logLik Deviance AIC BIC AICc

5.7498 -11.4996 -1.4996 -2.5408 58.5004

Variance Components:

estim sqrt nlvls fixed factor

sigma^2.1 0.0000 0.0000 9 no effectsizeID

sigma^2.2 0.0000 0.0000 3 no studyID

Test for Residual Heterogeneity:

QE(df = 6) = 3.4138, p-val = 0.7554

Test of Moderators (coefficients 2:3):

F(df1 = 2, df2 = 6) = 82.4420, p-val < .0001

Model Results:

estimate se tval pval ci.lb ci.ub

intrcpt -0.4587 0.0655 -6.9977 0.0004 -0.6191 -0.2983 \*\*\*

factor(type)2 0.5066 0.0914 5.5406 0.0015 0.2829 0.7303 \*\*

factor(type)3 -0.7007 0.0953 -7.3486 0.0003 -0.9340 -0.4674 \*\*\*

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Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> Type1<-rma.mv(yi,vi,subset=(type=="1"),random=list(~1|effectsizeID,~1|studyID),tdist=TRUE,

dat=LNmeta)

> summary(Type1)

Multivariate Meta-Analysis Model (k = 3; method: REML)

logLik Deviance AIC BIC AICc

2.1192 -4.2383 1.7617 -2.1589 25.7617

Variance Components:

estim sqrt nlvls fixed factor

sigma^2.1 0.0000 0.0000 3 no effectsizeID

sigma^2.2 0.0000 0.0000 3 no studyID

Test for Heterogeneity:

Q(df = 2) = 0.7672, p-val = 0.6814

Model Results:

estimate se tval pval ci.lb ci.ub

-0.4587 0.0655 -6.9977 0.0198 -0.7407 -0.1767 \*

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Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> Type2<-rma.mv(yi,vi,subset=(type=="2"),random=list(~1|effectsizeID,~1|studyID),tdist=TRUE,

dat=LNmeta)

> summary(Type2)

Multivariate Meta-Analysis Model (k = 3; method: REML)

logLik Deviance AIC BIC AICc

2.5067 -5.0134 0.9866 -2.9340 24.9866

Variance Components:

estim sqrt nlvls fixed factor

sigma^2.1 0.0000 0.0000 3 no effectsizeID

sigma^2.2 0.0000 0.0000 3 no studyID

Test for Heterogeneity:

Q(df = 2) = 0.1121, p-val = 0.9455

Model Results:

estimate se tval pval ci.lb ci.ub

0.0479 0.0637 0.7513 0.5308 -0.2264 0.3221

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Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

> Type3<-rma.mv(yi,vi,subset=(type=="3"),random=list(~1|effectsizeID,~1|studyID),tdist=TRUE,

dat=LNmeta)

> summary(Type3)

Multivariate Meta-Analysis Model (k = 3; method: REML)

logLik Deviance AIC BIC AICc

1.1679 -2.3357 3.6643 -0.2563 27.6643

Variance Components:

estim sqrt nlvls fixed factor

sigma^2.1 0.0022 0.0473 3 no effectsizeID

sigma^2.2 0.0022 0.0473 3 no studyID

Test for Heterogeneity:

Q(df = 2) = 2.5346, p-val = 0.2816

Model Results:

estimate se tval pval ci.lb ci.ub

-1.1627 0.0794 -14.6434 0.0046 -1.5043 -0.8211 \*\*

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Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1