Supplemental Material S2. Calculation of effect sizes.

We computed *d* using

$$d = \frac{\bar{Y}_1 - \bar{Y}_2}{S_{Within}},$$

where $\bar{Y}_1$ and $\bar{Y}_2$ are the sample means of the pre-post scores, and S_{Within} is estimated using

$$S_{Within} = \sqrt{\frac{S_{pre}^2 + S_{post}^2}{2}}.$$

The variance of *d* is given by

$$V_d = \left(\frac{1}{n} + \frac{d^2}{2n}\right) 2(1 - r),$$

where *r* is the correlation between pretest and posttest, *n* is the number of pairs. The standard error of d is the square root of V_d.

Hedge's *g* is given by

$$g = J(df)d,$$

where the correction factor J(df) is given by

$$J(df) = 1 - \frac{3}{4df - 1}.$$

The degrees of freedom for computing *J* is *n* − 1, where *n* is the number of pairs.

For articles that only reported *F* statistics from one-way repeated measures ANOVA,

$$d = \pm\sqrt{\frac{2F(1 - r)}{n}}$$

$$v = \left(\frac{1}{n} + \frac{d^2}{2n}\right) 2(1 - r)$$

where *r* is the correlation between pretest and posttest, *n* is the number of pairs, and the sign of *d* reflect the direction of the mean difference.

Reference

Borenstein, M., & Hedges, L. V. (2019). Effect sizes for meta-analysis. In H. Cooper, L. V. Hedges, & J. C. Valentine (Eds.), *Handbook of research synthesis and meta-analysis* (pp. 208–243). Russell Sage Foundation.