

Quality Indicator Checklist: Correlational Studies

QUALITY INDICATORS

Analytic Method (must meet 1 and 3; or 2 and 3)

- (1) Hypotheses are not formulated prior to conducting analysis (i.e., *exploratory*)
- (2) Hypotheses are planned and formulated prior to conducting analysis (i.e., *a priori*)
- (3) Significant correlations of (± 0.1) are reflected between predictor and outcome variables

Measurement (suggested)

- (4) Score reliability coefficients are reported for all measured variables based on induction from a prior study or analysis of data within current study
 - If score reliability based on a measure from a previous study, the sample in the current study is comparable to the previous study
- (5) Score validity coefficients are reported for all measured variables based on induction from a prior study or analysis of data within current study
 - If score validity based on a measure from a previous study, the sample in the current study is comparable to the previous study

Practical Significance (must meet)

- (6) Effect sizes are reported or may be calculated for each outcome (relevant to this review), even when the outcome was not statistically significant
 - Examples of effect categories include: (a) standardized differences (e.g., Cohen's *d*, Glass's Δ); (b) "uncorrected" variance-accounted-for (e.g., η^2 , R^2); and (c) "corrected" variance-accounted-for (e.g., adjusted R^2 , ω^2)
 - When comparing multiple related studies with related variables and outcomes, comparison of effects to evaluate consistency of results across studies is recommended.

Macro-analysis (must meet 7, 8, 9, 10, 11; suggested 12)

- (7) General Linear Model (GLM) weights (e.g., beta weights, factor pattern coefficients, discriminate function coefficients) are interpreted as reflecting correlations of predictors with outcome variables only in the exceptional case that the weights are correlation coefficients
- (8) If multiple regression analysis, exploratory factor analysis, confirmatory factor analysis, descriptive discriminate analysis, or canonical correlation analysis are used, the

interpretation of results includes examination of structure coefficients (i.e., correlations of measured variables with latent variables actually being analyzed)

- (9) Univariate methods are not used in the presence of multiple outcome variables
- (10) Univariate methods are not used post hoc to multivariate tests (i.e., multivariate post hoc methods (e.g., descriptive discriminant analysis) are conducted when multivariate methods are employed)
- (11) Interval data (e.g., IQ scores) are not converted to nominal scale (e.g., “low”, “high”) unless such choices are justified and thoughtfully considered
- (12) Evidence is presented that statistical assumptions are sufficiently met for results to be deemed credible (e.g., homogeneity of variance, normal distribution, measures of central tendency)

Confidence Intervals (suggested)

- (13) Confidence intervals are reported or can be calculated for :
 - (a) reliability coefficients derived for study data,
 - (b) sample statistics (e.g., means, correlation coefficients) of primary interest in the study
 - (c) study effect sizes