Glossary

Blinding (masking): in an experimental study, refers to whether patients, clinicians providing an intervention, people assessing outcomes, and/or data analysts were aware or unaware of the group to which patients were assigned. In the design section of Evidence-Based Nursing abstracts of treatment studies, the study is identified as blinded, with specification of who was blinded; unblinded, if all parties were aware of patients’ group assignments; or unclear if the authors did not report or provide us with an indication of who was aware or unaware of patients’ group assignments.

Concealment of randomisation: concealment of randomisation is specified in the design section of Evidence-Based Nursing abstracts of treatment studies as follows: allocation concealed (deemed to have taken adequate measures to conceal allocation to study group assignments from those responsible for assessing patients for entry in the trial [ie, central randomisation; sequentially numbered, opaque, sealed envelopes; sealed envelopes from a closed bag; numbered or coded bottles or containers; drugs prepared by the pharmacy; or other descriptions that contain elements convincing of concealment]); allocation not concealed (deemed to have not taken adequate measures to conceal allocation to study group assignments from those responsible for assessing patients for entry in the trial [ie, no concealment procedure was undertaken, sealed envelopes that were not opaque or were not sequentially numbered, or other descriptions that contained elements not convincing of concealment]); unclear allocation concealment (the authors did not report or provide a description of an allocation concealment approach that allowed for the classification as concealed or not concealed).

Confidence interval (CI): quantifies the uncertainty in measurement; usually reported as 95% CI, which is the range of values within which we can be 95% sure that the true value for the whole population lies.

Effect size: a measure of effect that is typically used for continuous data when different scales are used to measure an outcome. It is calculated as the difference in the mean of the intervention group minus the mean of the control group divided by the standard deviation of the control group or both groups; it can be used for combining results across studies in a meta-analysis.

Equivalence trial: a trial designed to determine if a new intervention is equally effective as the current standard of care is equally effective.

Hazard ratio: the weighted relative risk over the entire study period; often reported in the context of survival analysis.

Intention-to-treat analysis (ITT): all patients are analysed in the groups to which they were randomised, even if they failed to complete the intervention or received the wrong intervention.

Likelihood ratio (for positive and negative results): a way of summarising the findings of a study of a diagnostic test for use in clinical situations where there may be differences in the prevalence of the disease. The likelihood ratio for a positive test is the likelihood that a positive test result comes from a person who really does have the disorder rather than one who does not have the disorder [sensitivity/(1−specificity)]. The likelihood ratio for a negative test is the likelihood that a negative test result comes from a person with the disorder rather than one without the disorder [(1−sensitivity)/specificity].

Number needed to harm (NNH): number of patients who, if they received the experimental treatment, would lead to 1 additional person being harmed compared with patients who receive the control treatment; this is calculated as 1/absolute risk increase (rounded to the nearest whole number), accompanied by the 95% confidence interval.

Number needed to treat (NNT): number of patients who need to be treated to prevent 1 additional negative event (or to promote 1 additional positive event); this is calculated as 1/absolute risk reduction (rounded to the nearest whole number), accompanied by the 95% confidence interval.

Odds ratio (OR): describes the odds of a patient in the experimental group having an event divided by the odds of a patient in the control group having the event or the odds that a patient was exposed to a given risk factor divided by the odds that a control patient was exposed to the risk factor.

Power: the ability of a study to detect an actual effect or difference between groups; it has to do with the adequacy of sample size. Before a study begins, researchers often calculate the number of participants required to detect a difference between 2 groups. If a study has insufficient power (ie, sample size is too small), actual differences between groups may not be detected.

Random-effects model: gives a summary estimate of the magnitude of effect in meta-analysis. It takes into account both within-study and between-study variance and gives a wider confidence interval to the estimate than a fixed-effects model if there is significant between-study variation.

Relative benefit increase (RBI): the proportional increase in the rates of good events between experimental and control participants; it is reported as a percentage (%).

Relative risk increase (RRI): the proportional increase in bad outcomes between experimental and control participants; it is reported as a percentage (%).

Relative risk reduction (RRR): the proportional reduction in bad outcomes between experimental and control participants; it is reported as a percentage (%).

Sensitivity: a measure of a diagnostic test’s ability to correctly identify the absence of a disorder in a sample of people who do not have the disorder.

Specificity: a measure of a diagnostic test’s ability to correctly detect a disorder when it is present in a sample of people.

1 Higgins JPT, Green S, editors. Cochrane handbook for systematic reviews of interventions. Version 4.2.6 (updated September 2006). In: Cochrane Library. Chichester, UK: John Wiley & Sons Ltd.