

# 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 methods 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 *blinded (unclear)* if the authors did not report or provide us with an indication of who was aware or unaware of patients' group assignments.

**Cluster randomisation<sup>1</sup>:** randomisation of groups of people rather than individuals; this approach is often used to avoid "contamination" when the way in which people in one group are treated or assessed is likely to modify the treatment or assessment of people in other groups.

**Concealment of randomisation:** concealment of randomisation is specified in the methods 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.

**Fixed effects model<sup>2</sup>:** gives a summary estimate of the magnitude of effect in meta-analysis. It takes into account within-study variation but not between-study variation and hence is usually not used if there is significant heterogeneity.

**Hazard ratio<sup>3</sup>:** the weighted relative risk over the entire study period; often reported in the context of survival analysis.

**Heterogeneity<sup>2</sup>:** the degree to which the effect estimates of individual studies in a meta-analysis differ significantly.

**Inception cohort:** a defined, representative sample of patients is assembled for a study at a common (ideally early) point in their disease or condition and followed up over time.

**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.

**Maximum variation sampling<sup>4</sup>:** an approach to sampling used by qualitative researchers that involves the purposeful selection of study participants with a wide range of variation.

**Number needed to harm (NNH)<sup>5</sup>:** 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 next 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 next whole number), accompanied by the 95% confidence interval.

**Random effects model<sup>2</sup>:** 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 benefit reduction (RBR):** the proportional decrease in rates of good events between experimental and control participants; it is reported as a percentage (%).

**Relative risk (RR):** proportion of patients experiencing an outcome in the treated (or exposed) group divided by the proportion experiencing the outcome in the control (or unexposed) group.

**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 analysis:** tests the robustness of the observed results relative to sensible modifications in important variables.

**Standardised mean difference<sup>2</sup>:** in a systematic review, a way of combining the results of studies that may have measured the outcome (eg, pain) in different ways, using different scales; effects are expressed as a standard value, with no units (difference between 2 means / estimate of within-group standard deviation).

**Weighted mean difference<sup>2</sup>:** in a meta-analysis, used to combine outcomes measured on continuous scales (eg, height), assuming that all trials measured the outcome on the same scale; the mean, standard deviation and sample size of each group are known, and weight given to each trial is determined by the precision of its estimate of effect.

1 Jadad AR. *Randomised controlled trials*. London: BMJ Books, 1998.

2 Clarke M, Oxman AD, eds. Glossary. *Cochrane reviewers' handbook* 4.1.2 (updated March 2001). In: *Cochrane Library*. Oxford: Update Software, Updated quarterly.

3 Guyatt G, Rennie D, eds. *Users' guides to the medical literature. A manual for evidence-based clinical practice*. Chicago: American Medical Association, 2002.

4 Polit DF, Beck CT, Hungler BP. *Essentials of nursing research: methods, appraisal, and utilization*, Fifth edition. Philadelphia: Lippincott, 2001.

5 Sackett DL, Haynes RB, Guyatt GH, et al. *Clinical epidemiology: basic science for clinical medicine*, Second edition. Boston: Little, Brown and Company, 1991.