

# 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.

**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 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.

**Diagnostic (gold or criterion or reference) standard:** the current best available measure of an outcome; used for assessing properties of a new diagnostic or screening test. The results from a new test are compared with the results from the diagnostic standard to assess the usefulness of the new test (ie, its sensitivity, specificity, and likelihood ratios).

**Effect size<sup>2</sup>:** a measure of effect that is typically used for continuous data when different scales are used to measure an outcome and is usually defined as the difference in means between the intervention and control groups divided by the standard deviation of the control or both groups; it can be used for combining results across studies in a meta-analysis.

**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.

**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)<sup>4</sup>:** 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 that really does have the disorder rather than one that 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)<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.

**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.

**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 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 (%).

**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, editors. Glossary. *Cochrane reviewers' handbook* 4.1.2 (updated March 2001). In: *Cochrane Library*. Oxford: Update Software. Updated quarterly.
- 3 Guyatt G, Rennie D, editors. *Users' guides to the medical literature. A manual for evidence-based clinical practice*. Chicago: American Medical Association, 2002.
- 4 Streiner D, Geddes J. Some useful concepts and terms used in articles about diagnosis [editorial]. *Evidence-Based Mental Health* 1998;1:6-7.
- 5 Sackett DL, Haynes RB, Guyatt GH, et al. *Clinical epidemiology: basic science for clinical medicine*. Second edition. Boston: Little, Brown and Company, 1991.