

# Glossary

**Analysis of covariance<sup>1</sup>:** a statistical procedure to test the mean difference between groups on a dependent variable while controlling for  $\geq 1$  extraneous variable (covariate).

**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 *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>2</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.

**Confounder<sup>3</sup>:** a variable that affects the observed relation between 2 other variables (eg, alcohol is related to lung cancer, but does not cause the disease; instead, both alcohol and lung cancer are related to smoking, and it is the smoking that causes lung cancer).

**Crossover trial:** a method of comparing 2 interventions in which patients are switched to the alternative intervention after a specified period of time.

**Fixed effects model<sup>4</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.

**Grounded theory<sup>1</sup>:** an approach to collecting and analysing qualitative data with the aim of developing theories grounded in real world observations.

**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.

**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>4</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 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 (%).

**Symbolic interaction<sup>1</sup>:** a qualitative research method that focuses on the way in which people make sense of social interactions and the meanings they attach to social symbols such as language.

**Weighted mean difference<sup>4</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 Polit DF, Hungler BP. *Essentials of nursing research: methods, appraisal, and utilization*. Fourth edition. Philadelphia: Lippincott, 1997.

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

3 Crombie IK. *The pocket guide to critical appraisal: a handbook for healthcare professionals*. London: BMJ Publishing Group, 1996.

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

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