

# Glossary

**Adjusted analysis**<sup>1</sup>: when groups differ on baseline characteristics (eg, age), analyses of outcome data are statistically modified to account for these differences.

**Blinding (masking)**: in an experimental study, refers to whether patients, clinicians providing an intervention, people assessing outcomes, and/or statisticians 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 will be 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.

**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; 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 other descriptions that contain 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.

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

**Dose response**<sup>2</sup>: indicates that a relation exists, such that increasing doses or duration of treatment results in increased frequency or intensity of outcomes (eg, as the dosage of a medication increases, so does the magnitude of pain reduction).

**Fixed effects model**<sup>3</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>4</sup>: an approach to collecting and analysing qualitative data with the aim of developing theories grounded in real world observations.

**Hermeneutic phenomenology**<sup>5</sup>: the study of the methodological principles of interpretation by using narrative texts to explain a phenomenon.

**Heterogeneity**<sup>3</sup>: the degree to which the effect estimates of individual studies in a meta-analysis differ significantly.

**Inductive analysis**: often used in qualitative research, this type of analysis begins with specific observations from which generalisa-

tions are developed; opposite to deductive analysis, often used in quantitative research, which begins with the abstract (eg, general laws or hypotheses) from which logical deductions about specific things are made.

**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.

**Logistic regression**<sup>1</sup>: a statistical technique that predicts the probability of a dichotomous dependent variable (eg, dead or alive) using, typically, a combination of continuous and categorical independent variables.

**Median**: the value of the middle observation in a sample. That is, if the data from 99 people were ordered from high to low, the median would be the value of the 50th observation.

**Meta-analysis**<sup>1</sup>: a method for combining the results of several independent studies so that an overall summary statistic can be calculated.

**Multiple case study approach**<sup>2</sup>: a non-experimental study design involving a series of cases; the cases may be individuals, groups, or organisations; data are collected and analysed from these multiple sources (cases).

**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.

**Phenomenology**<sup>4</sup>: an approach to inquiry that emphasises the complexity of human experience and the need to understand that experience holistically as it is actually lived.

**Power**<sup>1</sup>: the ability of a study to detect an actual effect or difference of a given size (eg, a 10% 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 postulated difference between 2 groups. If a study has insufficient power (ie, sample size is too small), actual differences between groups may not be detected.

**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 reduction (RRR)**: the proportional reduction in outcome rates of bad events between experimental and control participants; it is reported as a percentage (%).

**Weighted**: statistical analysis accounts for differences in certain important variables.

- 1 Dawson-Saunders B, Trapp RG. *Basic and clinical biostatistics*. Norwalk: Appleton and Lange, 1994.
- 2 Adler AS, Clark R. *How it's done: an invitation to social research*. Scarborough: Wadsworth, 1999.
- 3 Mulrow CD, Oxman AD, editors. *Cochrane Collaboration handbook* (updated September 1997). In: *Cochrane Library*, 4, 1997. Oxford: Update Software.
- 4 Polit DE, Hungler BP. *Nursing research: principles and methods*. Philadelphia: Lippincott, 1995.
- 5 Talbot LA. *Principles and practice of nursing research*. St Louis: Mosby, 1995.