

Glossary

Abstract: a summary of a research or discussion paper.

Action research: a study carried out in a setting in which the results are implemented and evaluated within that setting.

Analysis: the process of studying the relationship between different things – for example, the data collected for a research project or the results of different research projects.

Bias: flaws in the design of a study that can lead to invalid conclusions.

Blinding: an approach to reduce bias by concealing the participants or researchers.

Campbell Collaboration: a worldwide collaboration that commissions and maintains systematic reviews in social care.

Case control study: a study in which people with a specific condition (cases) are compared with people without this condition (controls) to compare the frequency of the occurrence of the exposure that might have caused the disease.

Clinical trial: a study undertaken in a clinical area to compare the effect of an intervention; the term clinical trial often refers to a randomized controlled trial.

Cochrane Collaboration: a worldwide collaboration that commissions and maintains systematic reviews in health care.

Cohort study: a study in which two or more groups, or cohorts, are followed up to examine whether exposures measured at the beginning lead to outcomes, such as disease.

Confidence interval: confidence intervals are usually (but arbitrarily) 95 per cent confidence intervals. A reasonable, though strictly incorrect interpretation, is that the 95 per cent confidence interval gives the range in which the population effect lies.

CONSORT statement (Consolidated Standards of Reporting Trials statement): a statement that describes the information that should be included in the report of a trial.

Critical appraisal: a process by which the quality of evidence is assessed.

Critical appraisal tool: a checklist used to assess the quality of evidence.

Cross-sectional study (survey/questionnaire): data that are gathered from a population at one point in time.

Database: a collection of data; in research, a database normally refers to a collection of journals that are searchable electronically.

Descriptive statistics: statistics such as means, medians and standard deviations, which describe aspects of the data, such as central tendency (mean or median) or its dispersion (standard deviation).

Discussion paper: a paper presenting an argument or discussion – not a research paper.

Dissertation: a document presenting the main findings from a piece of academic work.

Double blind study: a study in which neither the researchers nor the participants are aware of which treatment or intervention the participants are receiving.

Empirical research: research that is based on observation or experiment; the opposite of theoretical research.

Essay: a short piece of academic writing on a selected topic.

Ethnography: qualitative research approach that involves the study of culture/way of life of participants.

Evidence-based practice (EBP): practice that is based on the best available evidence, moderated by patient preferences.

Generalize: to apply the findings of a study to another population.

Grounded theory: qualitative research approach that involves the generation of theory.

Hierarchy of evidence: a grading system for assessing the quality of evidence.

Hypothesis: a proposed explanation for an observable phenomenon.

Inclusion and exclusion criteria: criteria that are used to focus the search strategy for a literature review (e.g. research from the past five years, published in the English language).

Inferential statistics: statistics that are used to infer findings from the sample population to the wider population, usually meaning statistical tests.

Information technology: the use of computers to store, process and retrieve information.

Keywords: words that are central to the topic you are searching for, and used to search a database.

MeSH: Medical Subject Headings – a thesaurus of medical terms used to index medical information in some databases.

Meta-analysis: a process by which quantitative data with similar properties are combined to produce a weighted average of all the results.

Meta-ethnography: a process by which qualitative data are combined.

Meta-study: a process by which qualitative data are combined.

Meta-synthesis: a process of combining the statistical results of several studies that address a specific research question.

Mixed methods research: research that incorporates two or more research methods in order to provide different perspectives on a research question.

Narrative review: a literature review that is not conducted according to a predefined and systematic approach.

Null hypothesis: an investigator proposes a study because he or she has a belief or hypothesis that one treatment is better than another. However, in statistical theory, it is not possible to prove a hypothesis, it is only possible to disprove one. Therefore, the investigator sets up a hypothesis that they believe to be false (that there is no difference between the two treatments). This is called the null hypothesis. They then seek to falsify the null hypothesis: a hypothesis that proposes no relationship between the properties described in the hypothesis. For example, the null hypothesis that stated no relationship between lung cancer and smoking was disproved by research in the 1950s and 1960s.

Odds ratio: the odds of an event occurring in the experimental group, divided by the odds of an event occurring in the control group.

Phenomenology: qualitative research approach in which the participants' 'lived experience' is explored.

PICOT: acronym to assist literature review question formulation: Population, Intervention/Issue, Comparison/Context, Outcome and Time – sometimes shortened to PICO.

Policy literature: literature produced locally, nationally or internationally that publishes guidelines, policies and protocols.

Practice literature: literature that describes what happens in practice.

Predefined question: a question that is set before the start of a research project or a literature review.

Primary research/research study: a study undertaken using a planned and methodological approach.

Purposive sampling: sampling strategy used by qualitative researchers who are looking for a sample that is 'fit for the purposes' of the study in question.

P-values: *P* is for probability; the *P*-value is the probability of observing results or results more extreme than those observed if the null hypothesis was true.

Qualitative data: data collected for a qualitative study.

Qualitative research: research that involves an in-depth understanding of the reasons for and meanings of human behaviour.

Quantitative research: research that involves counting.

Questionnaire: a list of questions to be asked of respondents.

Random sampling: a sampling strategy in which everyone in a given population has an equal chance of being selected and that probability is independent of any other person selected.

Randomization/random allocation: the process of allocating individuals randomly to groups in a trial.

Randomized controlled trial (RCT): a trial that has randomly assigned groups in order to determine the effectiveness of an intervention that is given to one/two of the groups.

Research literature: literature that describes and reports research projects/studies.

Research methodology: the process undertaken to address the research question.

Research question: a question formulated by researchers at the outset of a study, to be addressed in that study.

Research study/primary study: a study undertaken using a planned and methodological approach.

Rigour: evidence that the research has been carried out in a robust manner.

Risk ratio: the ratio of risk of an event occurring in the experimental group divided by the risk in the control group.

Sample: the people recruited to a study.

Search strategy: the predefined plan for searching for information or research on a topic.

Secondary source: a source that is not derived from an eyewitness account of a situation.

Snowball sampling: a sampling strategy in which who/what is involved in the study (sample) is determined according to the needs of the study as the investigation progresses.

SPIDER: acronym to assist literature review question formulation: Sample, Phenomena of Interest, Design, Evaluation, Research.

Statistics: see descriptive and inferential statistics (defined above).

Stratification: stratification is when the sample is divided into groups that have the same value, for example, stratifying by age means putting people of the same age or age group together.

Strict protocol: a predefined method for undertaking a research project or literature review.

Subject-specific electronic databases: databases containing collections of journals relevant to a specific subject area.

Systematic review: a review of the literature that is undertaken according to a defined and systematic approach.

Theoretical framework: a background of theoretical literature that helps to set the findings of a study or literature review in context.

Theoretical literature: literature that describes a theory or a set of ideas.

Theoretical sampling: an approach to sampling in grounded theory where the sampling strategy evolves as the study progresses, according to the needs of the study and the developing theory.

Transferability: when the results of a study may be transferred to another context or population.

Validity: the extent to which a study or an intervention measures what it is intended to measure.

