Glossary of useful terms

Abstract
Clear, concise summary of a study, usually limited to 100-250 words.

Applied research
Scientific investigations conducted to generate knowledge that will directly influence or improve practice.

Attrition
The lost of participants during the course of a study: can introduce an unknown amount of bias by changing the composition of the sample initially drawn – particularly if more subjects are lost from one group than another; can thereby be a threat to the internal validity of a study.

Bias
Any influence or action in a study that distorts the findings or slants them away from the true or expected.

Case study design
Intensive exploration of a single unit of study, such as a person, family, group, community or institution.

Causal relationship
Relationships between two variables where one variable (independent variable) is thought to cause or determine the presence of the other variable (dependent variable).

Coding
Process of transforming qualitative date into numerical symbols that can be computerized.

Cohorts
Sample in time-dimensional studies within the field of epidemiology.

Comparison group
The group not receiving a treatment or receiving the usual treatment (standard care) when non-random sampling methods are used.

Concept
A term that abstractly describes and names an object or phenomenon, thus providing it with a separate identity or meaning.

Conceptual framework
A set of highly abstract, related constructs that broadly explains phenomena of interest, expresses assumptions, and reflects a philosophical stance.

Confidentiality
Management of data in research so subjects' identities are not linked with their responses.

Confounding variables
Variables recognized before the study is initiated but cannot be controlled, or variables not recognized until the study is in process, which may have an effect on the dependent variable.

Convenience or accidental sampling
Subjects are included in the study because they happen to be in the right place at the right time; available subjects are simply entered into the study until the desired sample size is reached.

Data analysis
Conducted to reduce, organize, and give meaning to data.

Data collection
Precise, systematic, gathering of information relevant to the research purposes or the specific objectives, questions or hypotheses of a study.

Data transformation
A step often undertaken prior to the analysis of research data, to put the data in a form that can be meaningfully analysed (e.g., recording of values).

Data triangulation
Collection of data from multiple sources in the same study.

Declaration of Helsinki
Ethical code based on the Nuremberg code that differentiated therapeutic from non-therapeutic research.

Delphi technique
A method of measuring the judgements of a group of experts for assessing priorities or making forecasts.

Dependent variable
The response, behaviour, or outcome that is predicted or explained in research; changes in the dependent variable are presumed to be caused by the independent variable.

Ethical principles
Principles of respect for persons, beneficence, and justice relevant to the conduct of research.

Experimental design
Designs that provide the greatest amount of control possible in order to more closely examine causality.

Focus group interview
An interview in which the respondents are a group of individuals assembled to answer questions on a given topic.

Generalization
Extends the implications of the findings from the sample that was studied to the larger population or from the situation studies to a larger situation.

Grounded theory research
An inductive research technique based on symbolic interaction theory, which is conducted to discover what problems exist in a social scene and the process persons use to handle them. The research process involves formulation, testing and redevelopment of propositions until a theory is developed.

Hawthorne effect
A psychological response in which subjects change their behaviour simply because they are subjects in a study, not because of the research treatment.

Inclusion criteria
Sampling requirements identified by the researcher that must be present for the element or subject to be included in the sample.

Informed consent
The prospective subject's agreement to voluntarily participate in a study, which is reached after assimilation of essential information about the study.

Interviews
Structured or unstructured verbal communication between the researcher and subject, during which information is obtained for a study.

Limitations
Theoretical and methodological restrictions in a study that may decrease the generalizability of the findings.

Longitudinal study
A study designed to collect data at more than one point in time, in contrast to a cross-sectional study.

Natural settings
Field settings or uncontrolled, real-life situations examined in research.

Pilot study
A smaller version of a proposed study conducted to develop and/or refine the methodology, such as the treatment, instrument, or data collection process.

Population
All elements (individuals, objects or events) that meet sample criteria for inclusion in a study. Sometimes referred to as a target population.

Principal investigator (PI)
In a research grant, the individual who will have primary responsibility for administering the grant and interacting with the funding agency.

Proposal, research
Written plan identifying the major elements of a study, such as the problem, purpose, and framework, and outlining the methods to conduct the study. A formal way to communicate ideas about a proposed study to receive approval t conduct the study and seek funding.

Purposive sampling
Judgemental sampling that involves the conscious selection by the researcher of certain subjects or element to include in a study.

Qualitative research
A systematic, interactive, subjective approach used to describe life experiences and give them meaning.

Quantitative research
A formal, objective, systematic process to describe, test relationships, and examine cause and effect interactions among variable.

Questionnaire
A printed self-report form designed to elicit information that can be obtained through written responses of the subject.

Reliability
Represents the consistency of the measure obtained.

Research hypothesis
The alternative hypothesis to the null hypothesis that states there is a relationship between two or more variables.

Research objectives
Clear, concise, declarative statements that are expressed to direct a study and are focused on identification and description of variables and/or determination of the relationships amongst variables.

Research questions
Concise, interrogative statements developed to direct studies that are focused on description of variables, examination of relationships among variables, and determination of differences between two or more groups.

Rigour
The striving for excellence in research through the use of discipline, scrupulous adherence to detail, and strict accuracy.

Sample
A subset of the population that is selected for a study.

Sampling
Includes selecting group of people, events, behaviours, or other elements with which to conduct a study.

Sampling method
The process of selecting a group of people, events, behaviours, or other elements that are representative of the population being studies.

Scientific method
Incorporates all procedures that scientists have used, currently use, or may use in the future to pursue knowledge, such as quantitative research, qualitative research, and outcomes research.

Setting
Location for conducting research, such as a natural, partially controlled, or highly controlled setting.

Simple hypothesis
States the relationship (associative or causal) between two variables.

Survey
Technique of data collection using questionnaires or personal interviews to gather data about an identified population.

Survey design
A design to describe a phenomenon by collecting data from a large sample using questionnaires or personal interviews.

Unstructured interviews
Initiated with a broad question and subjects are usually encouraged to further elaborate on particular dimensions of a topic.

Unstructured observations
Involve spontaneously observing and recording what is seem with a minimum of prior planning.

Validity, design
The strength of a design to produce accurate results or findings may be determined by examining statistical conclusion validity, internal validity, construct validity, and external validity.

Variables
Qualities, properties, or characteristics of persons, things, or situations that change or vary and are manipulated or measured in research.