

CHAPTER 3: RESEARCH METHODS

KEY TERMS

ABA design

A single-case experiment which involves an initial baseline stage of observation and measurement of behaviour without any intervention (A), followed by a treatment or manipulation stage (B). A final return-to-baseline stage is then introduced (A) in which behaviour is once more observed in the absence of the treatment or manipulation.

ABAB design

A single-case experiment, similar to the ABA design, with the addition of a second treatment or manipulation stage, providing extra power in demonstrating that any changes in behaviour are explicitly due to the manipulation or treatment.

Aetiology

A term widely used in psychopathology to describe the causes or origins of psychological symptoms.

Analogue populations

Populations that are usually participants without any mental health problems, which may be human or non-human animals.

Analogue research

Research on healthy, non-clinical populations in order to shed light on the aetiology of psychopathology.

Animal models

The use of laboratory animals in research to simulate processes comparable to those occurring in humans.

Applied scientist

Someone who is competent as both a researcher and a practitioner.

Case study

An in-depth investigation of an individual participant.

Clinical audit

The use of research methods to determine whether existing clinical knowledge, skills and resources are effective and are being properly used. Also known as evaluation research.

Clinical trials

Experimental research studies used to test the effectiveness of treatments for mental health problems.

Confidentiality

The right of participants in psychological research to expect that information they provide will be treated in confidence.

Control

Using our knowledge of the causal relationships between events to manipulate behaviour or cognitions.

Control conditions

Conditions within an experiment that control for any effects other than that produced by the independent variable.

Control group

A group of participants who experience manipulations other than the independent variable being investigated.

Correlational designs

Research designs which enable a researcher to determine if there is a relationship between two or more variables.

Cross-sectional design

A research design that involves the collection of data from a sample at just one point in time.

Deception

The act of deceiving.

Demand characteristics

The features of an experiment which are the result of participants acting according to what they believe is expected of them.

Dependent variable (DV)

The outcome variable that is measured in an experiment.

Description

The defining and categorizing of events and relationships relevant to psychopathology.

Double-blind

An experimental procedure in which neither the experimenter nor the participant is aware of which experimental condition the participant is in.

Effect size

An objective and standardized measure of the magnitude of the effect observed in a research study.

Epidemiological studies

Research which takes the form of a large-scale survey used to study the frequency and distribution of disorders within specific populations over a specified period of time.

Evaluation research

See *clinical audit*.

Evidence-based

Treatments whose efficacy has been proven through research using the scientific method.

Experiment

A design in which the researcher manipulates a particular variable and observes the effect of this manipulation on some outcome, such as the participant's behaviour.

Experimental group

A group of participants who experience the independent variable in an experimental study.

Experimental hypothesis

A prediction about what the outcome of an experimental manipulation might be (also known as experimental prediction).

Experimental prediction

See *experimental hypothesis*.

External validity

The extent to which the results of a study can be extrapolated to other situations.

Grounded theory

An approach to qualitative analysis which involves identifying consistent categories or themes within the data, then building on these to provide more abstract theoretical insights into the phenomenon being studied.

Independent variable (IV)

The variable that is manipulated in an experiment.

Informed consent

Detailed information about an experiment given to participants in order to enable them to make an informed decision about participation.

Informed-consent form

See *Informed consent*

Lifetime prevalence

The frequency of a disorder within a lifetime.

Line of best fit

A straight line used as a best approximation of a summary of all the points in a scattergram.

Longitudinal studies

Research which takes measures from the same participants at two or more different times in order to specify the time relationships between variables. This may extend over many years or over a participant's whole lifetime.

Meta-analyses

Statistically accepted ways of assessing the strength of a particular finding across a number of different studies.

Mixed designs

Research which uses the non-random assignment of participants to groups in an experiment.

Model

A hypothetical description of a process or mechanism (such as a process or psychological mechanism involved in psychopathology).

Multiple-baseline design

An experimental design in which the researcher studies several behaviours at a time.

Natural experiments

Research which allows researchers to observe the effects on behaviour of a naturally occurring 'manipulation' (such as an earthquake).

Negative correlation

A relationship between two variables in which a high score on one measure is accompanied by a low score on the other.

National Institute for Health & Clinical Excellence (NICE)

An independent UK organisation responsible for providing national guidance on promoting good health and preventing and treating ill health.

No treatment control condition

The allocation of participants to a control condition, in which they do not receive the treatment under investigation.

Null hypothesis significance testing

The use of inferential statistics to establish whether differences between experimental groups are statistically significant (and are therefore unlikely to have occurred by chance).

Null hypothesis

A pattern of findings which are a result of chance rather than experimental manipulation.

One-month prevalence

The frequency of a disorder within the last month.

Placebo control condition

A control group that is included in a clinical trial to assess the effects of participant expectations.

Placebo effect

The effect when participants in a clinical trial show improvement even though they are not being given a theoretically structured treatment.

Point prevalence

The frequency of a disorder in the population at any one point in time.

Positive correlation

A relationship between two variables in which a high score on one measure is accompanied by a high score on the other.

Prediction

A statement (usually quantitative) about what will happen under specific conditions, as a logical consequence of scientific theories.

Prevalence

The number of instances of a given disease or psychopathology in a given population at a designated time.

Prevalence rates

The representation of incidence by duration of a particular disorder.

PRISMA

A group which provides guidelines for collecting and reporting clinically-relevant systematic reviews.

Privacy

The right of participants to decide not to provide some forms of information to the researcher if they so wish (e.g. their age or sexual orientation).

Prospective designs

Research which takes measures from the same participants at two or more different times in order to specify the time relationships between variables.

Qualitative methods

Research methods that rely on the analysis of verbal reports rather than on statistical analyses of quantifiable data.

Quantitative methods

Research methods that place an important emphasis on accurate and valid measurement of behaviour and attempt to draw conclusions from their studies on the basis of statistical inference.

Random assignment

Assignment of participants to different treatments, interventions or conditions according to chance.

Risk factors

Factors which may increase the risk of developing psychopathology later in life.

Scattergram

A graphical representation showing the relationship between two variables.

Scientific method

A research method which espouses the pursuit of knowledge through systematic observation and requires that research findings are replicable and testable.

Scientist-practitioner

Someone who is competent as both a researcher and a practitioner.

Single-case experiment

A single case study in which a participant's behaviour is observed and measured both before and after an experimental manipulation.

Social constructionism

An approach to research in clinical psychology emphasizing that reality is a social construction, and so there are no basic 'truths' of the kind that we seek to discover using the scientific method.

Statistical Package for the Social Sciences (SPSS)

A computer program specifically developed for statistical analysis for the social sciences.

Statistical significance

The degree to which the outcome of a study is greater or smaller than would be expected by chance.

Systematic review

A review of a clearly formulated question that uses systematic and explicit methods to identify, select, and critically appraise relevant research, and to collect and analyse data from the studies that are included in the review.

Theory

A set of propositions that usually attempt to explain a phenomenon by describing the cause-effect relationships that contribute to that phenomenon.

Understanding

A full description of how the causal factors affecting psychopathology interact.

Voluntary

Of one's own free will or design; not forced or compelled.