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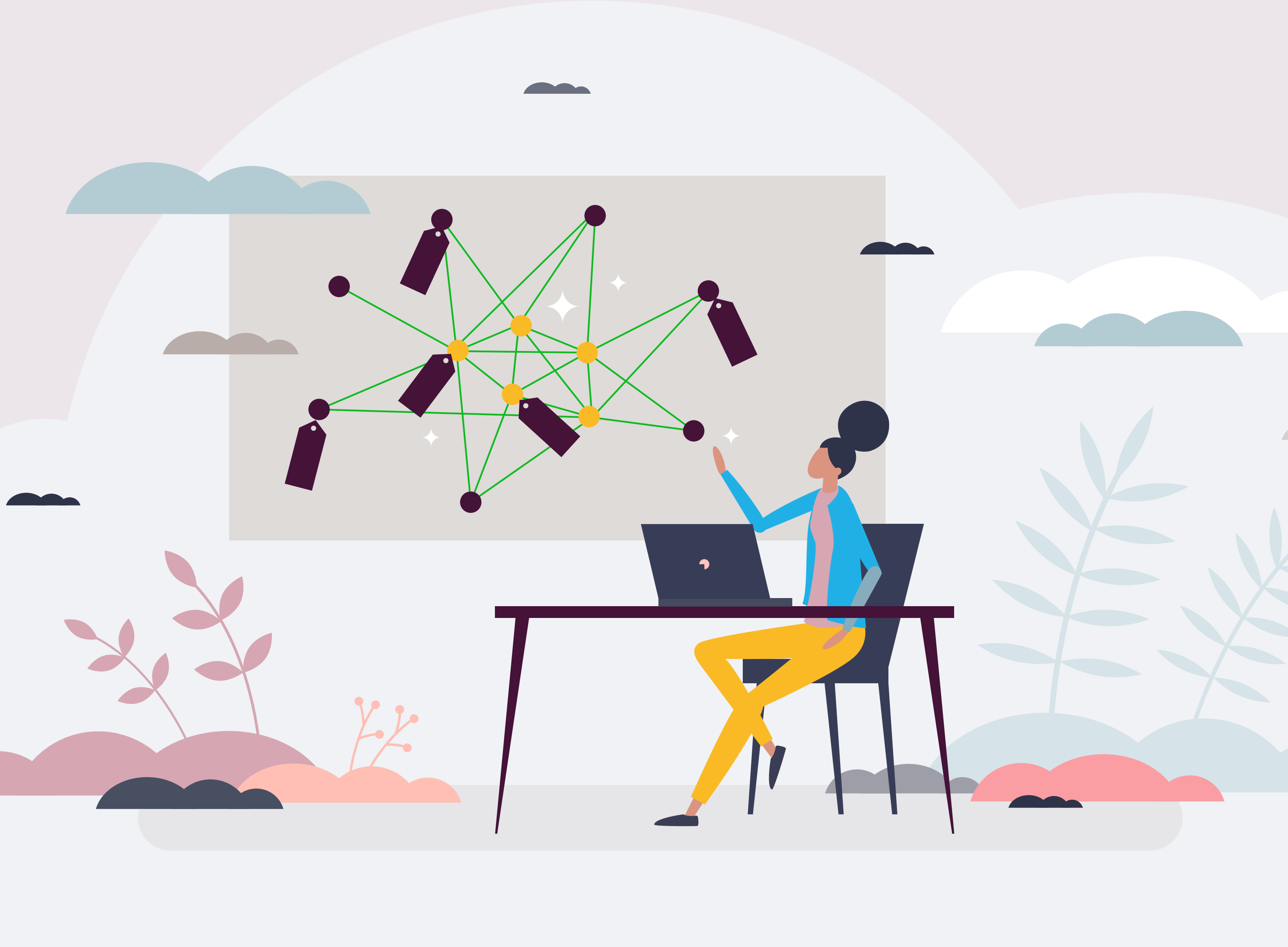

Research Jargon Buster

This Research Jargon Buster provides understandable non-technical descriptions of frequently used research terms. It aims to help non-researchers and those starting to learn about research understand key research concepts and terms. It is not intended to be an exhaustive list, and we welcome suggestions for additions. The descriptions have been developed by the Centre team, drawing on their expertise, and some of the resources provided in the further reading section at the end of this resource. For any queries or suggestions, please get in touch with us at team@centreforevidence.org.

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Broad terms

Audit – An approach that examines processes to find out if the design, delivery or quality of an existing service has met a target standard. Findings from audits may inform improvement initiatives or policy changes.

Chief Investigator (CI) / Principal Investigator (PI) – The researcher with overall responsibility for the study who is the grant / funding holder. In **randomised controlled trials** / multi-site (location) studies, it is often the case that the CI has overall project responsibility whilst the PI has responsibility by each site (location) where the **research** is taking place.

Data analysis – Systematically examining, processing, describing, and interpreting **research data** to extract useful information and derive insights to address research questions.

Deductive reasoning – Forming conclusions based on widely accepted facts, information, or premise; being led by existing theories when creating research questions and / or examining data. **Hypotheses** are formed through deductive reasoning.

Evaluation – Assessing whether an intervention is achieving its intended aims and outcomes and does not cause unanticipated harm.

General Data Protection Regulation (GDPR) – A regulation relating to the governing, processing, handling and protection of personal research data in a responsible and ethical manner.

Generalisability – The ability to apply the results of a study to the wider **population** of interest. For research to be generalisable, the **participant sample** must have been representative of the overall population of interest. This is more relevant to **quantitative research** and less so to **qualitative research** which by its nature does not aim to be generalisable.

Hypothesis – A statement that provides a possible explanation for why or how something works or happens, based on known facts or reasonable assumptions (e.g., deductive reasoning) but has not yet been tested or proven. In quantitative research, hypotheses are often set as part of the research question, with the purpose of the research being to test the hypothesis. There are usually two types of hypotheses tested in research: **the null** and **experimental** hypothesis.

Inductive reasoning – Forming conclusions based on evidence formed from a set of specific observations, such as those made from interview data and asking open questions. Often referred to as 'bottom-up reasoning', as the conclusions are based on new information rather than existing theory, i.e. not theory driven. This is often more applicable to qualitative research.

Informed consent – A legal and ethical requirement for participation in research where knowledge about the study such as its aims, methods, and requirements should be clearly stated and understood by the participant for them to make a fully informed decision about taking part.

Methodology – Refers to the overarching strategy to conducting research. The choice of methodology should be guided by the research question being asked. There are generally thought to be three broad overarching methodologies; **qualitative**, **quantitative** and **mixed methods**. Each broad methodology provides researchers with a contextual framework for how to conduct research. Within these broad methodologies are additional specific methodologies which can be applied across qualitative and quantitative research.

Participant Information Sheet (PIS) – A document explaining all relevant study information to assist potential participants in understanding the expectations and requirements of participation in the study. It provides transparency about the nature of the research enabling them to make an informed decision about their participation and therefore give informed consent to participate.

Participatory research – An umbrella term encompassing research orientations, designs, and methods which actively involve people who are directly affected by the issue being studied with the aim of producing change, i.e. when people with experience of the topic of interest become co-researchers who collaborate on key components, such as research design. There are several types of participatory research approaches, for example:

- **Action research** - A collaborative practice-based participatory method where researchers and participants collectively identify a problem, implement solutions, and evaluate outcomes in a real-world setting or context.
- **Co-production** – A form of participatory research which involves a collaborative approach to design, conduct, analyse, and dissemination. Knowledge is shared and power dynamics are considered equal across collaborators to reach an outcome.

Patient and Public Involvement and Engagement (PPIE) – Patients and / or members of the public with experience of the topic of focus are active partners in the research process. Their role can span across the life cycle of a research project, including, advising, assisting in the design, executing the research, supporting data analysis, and / or dissemination of the findings. Public involvement in research means research that is done ‘with’ or ‘by’ the public, not ‘to’, ‘for’ or ‘about’ them.

Primary data – The data collected from participants by the researcher for the intended purpose of answering the research question.

Reliability – In research, reliability is the degree to which a study’s results can be repeated under the same conditions. It is a measure of the accuracy of the study’s methods. There are different kinds of reliability (which heavily apply to quantitative research):

- **Internal consistency** – measures the consistency of the items of a test or measure, such that it measures what it is intended to measure.
- **Inter-rater reliability** – measures the consistency of the same test or observation conducted by different people.
- **Test-retest reliability** – measures the consistency of the same test repeated over time.

Research – A systematic approach to addressing clearly defined questions in order to build knowledge.

Research bias – Research bias occurs when you affect the results of your research by influencing how you arrive at them. For example, you are evaluating if your service is effective at helping Ex-Service personnel in the way you intend, but since you are invested in the outcome being positive, this may influence the way the evaluation is conducted and reported, i.e. one would be marking their own homework. There are various types of research bias that could result in inaccurate conclusions being reached about the population such as.

- **Confirmation bias** – reflects information that is recalled or presented in a way which confirms one's pre-existing beliefs or assumptions about a phenomenon while failing to consider alternative possibilities.
- **Design bias** – can occur when the research methods or design affect the outcomes of a study in a way that is not intended.
- **Recall bias** – can occur when participants cannot accurately remember events, experiences, or details which are relevant to the study which can lead to inaccurate data being provided. This is a risk in studies that use self-report data collection methods.
- **Reporting bias** – can occur when only specific or selective information is reported and other information is omitted, which can alter the outcomes of a study (such that they may favour the intended research questions or hypotheses).
- **Sample bias** – reflects the sample of participants selected for a study that is not representative of the population under investigation.
- **Selection bias** – can occur when the method of selecting study participants is biased towards a specific subgroup of the target population (for example, participants are not selected at random).

Research data – Information collected in a study.

Research ethics – Set of principles designed to protect the safety, dignity, rights and well-being of participants, as well as to help ensure the quality and robustness research.

Research ethics committee – A group of members such as researchers and other professionals (i.e. lawyers, healthcare professionals) or lay persons situated within a research or government institution with the goal of ensuring the ethical conduct of research is upheld. They review ethics applications submitted by researchers before the commencement of a research project and if deemed ethical, provide ethical approval for the conduct of a research study. This ensures research respects the dignity, rights, safety and well-being of participants, as well as the quality, appropriateness, and robustness of research methods. Research ethics must be obtained from a research ethics committee before any research with human participants is conducted.

Research methods – How researchers collect and analyse data, such as using interviews, questionnaires, diaries, clinical trials, experiments, and watching people's behaviour. Three main types of methods exist:

- **Qualitative research** – The process of collecting and analysing information about people's beliefs, experiences, narratives, attitudes, and / or behaviours. It addresses research questions which aim to understand 'how' and 'why' from an experiential perspective, using data collection methods like focus groups and interviews; it does not usually include the analysis of numerical data or the testing of hypotheses.

Quantitative research – The process of collecting and analysing numerical data. It can be used to identify patterns and averages, make predictions, test casual relationships between **variables**, test hypotheses, and generalise results to wider populations.

- **Mixed-methods research** – Research that incorporates both quantitative and qualitative approaches to address a research question. Quantitative and qualitative components can be conducted in sequence with one informing the other, or concurrently with synthesis from each component happening once both components are completed.
- **Multi-methods research** – Research that incorporates at least two different methods to collect data (e.g., interviews, focus groups) from within the research paradigm (quantitative or qualitative approach), or sometimes from various research paradigms.

Research question – The question which the researchers are trying to answer about a particular phenomenon.

Secondary data – Data previously collected for a different purpose (e.g. previous research) which is re-used for further analysis in a new research study.

Triangulation – Using different methods or data to double check conclusions from a research study. By drawing on a variety of data sources, which are cross-checked with one another, the aim is to limit the chances of bias in the methods or sources employed.

Validity – Validity in research is the extent to which the results of a study accurately reflect the reality of the phenomenon being studied; does the study measure / understand what it intended to. Assessing validity differs depending on the research methodology (i.e. quantitative or qualitative).

In quantitative terms, there are different forms of validity and methods for assessing validity:

- **External validity** examines whether the study findings can be generalised to other contexts.
- **Ecological validity** examines whether the study findings can be generalised to real-life settings and is thus a sub-type of external validity.
- **Internal validity** examines whether the study answers the research question without bias.

In qualitative terms, validity can be assessed by exploring the researcher's sensitivity to context, commitment and rigor, transparency and coherence as well as the impact and importance of the research. Reflexivity also enhances validity where the researcher reflects on their own biases,

Qualitative methodologies, analysis and related terms

assumptions and experiences that might impact the research outcomes.

Bracketing – In qualitative research, bracketing involves researchers putting aside (bracketing) their own experiences or expectations that may cause them to have preconceived notions about or affect the results and outcomes of the study. This is achieved through a reflective process often involving time thinking about and noting down any thoughts and expectations about the results and outcomes. This is a qualitative approach to managing researcher "bias", reliability and trustworthiness.

Case study – A study reporting observations on a single individual or particular group / phenomenon. This can also be a quantitative data collection method.

Content analysis – A methodology used to capture the presence of certain words, themes, or concepts within a given text based (qualitative) data. It quantifies by counting the frequency distribution of certain words, themes or concepts and analyses the presence, meanings, and relationships to draw closes.

Discourse analysis (DA) – A methodology focusing on language and how it is used in social contexts to create meaning. There are different kinds of DA, each with a slightly different focus, but all are concerned with language as the focus of analysis.

Grounded Theory (GT) – The focus of GT studies is to understand and explain social processes, relationships, and behaviours. GT studies aim to develop new theory "grounded" in the data through the process of analysis.

Information Power – A method to assess the value and relevance of qualitative data collected based on how rich or meaningful it is to address the research question. This can help determine a sample size for a study, whereby if the data is high quality and rich a smaller sample size may be viable. The term is divisive and not used across all methodologies, with some preference for the saturation approach.

Interpretative Phenomenological Analysis (IPA) – IPA draws on the philosophical concepts of phenomenology and hermeneutics. Phenomenology is interested in the nature of conscious experience and how people perceive and communicate their experiences. Hermeneutics is the study of interpretation and acknowledges that all we know is via our interpretation. Therefore, IPA aims to gain experiential insights into how individuals make sense of, perceive, and communicate

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[1] In qualitative research, methodologies refer to the broader framework, theoretical and philosophical assumptions that guide the choice of methods. Qualitative methods are the specific tools and techniques used to collect and analyse the data.

their experiences, while considering the important role of the researcher who is interpreting what the participant shares.

Naturalistic observation – An observational method that involves observing people's behaviour in the environment in which it typically occurs. Quantitative data can also be collected using this method.

Qualitative coding – An aspect of qualitative data analysis, often in the early stage, when researchers systematically look through the data and cluster / group together similar ideas, phenomena, people, or events, and label it to make better sense of it. This can be done manually on paper or via the help of software, such as 'NVivo'.

Reflexive thematic analysis (RTA) – RTA aims to identify common themes of shared experiences within qualitative data. RTA considers the active role of the researcher in the analysis process, and that analysis is affected by the researcher's subjectivity and **reflexivity**.

Saturation – Data saturation occurs when no new categories or themes arise from the analysis. Once saturation is reached the researcher ends data collection. The term can be divisive and is not used across all methodologies, with some preference for the **information power** approach.

Quantitative methodologies, approaches, and related terms

Between-subjects design / Between-groups design – An experiment in which each participant undergoes only one experimental condition and the researchers examine the differences between the conditions and therefore the participants. For example, in a study to examine whether a high-fibre diet helps decrease anxiety levels amongst ex-Service personnel, one group of participants starts the high-fibre diet and **a control group** of participants starts a non-high-fibre diet. The anxiety levels of the two groups are compared to measure the experimental effect.

Blinding – A term relevant to assessing the effectiveness of interventions. For example, in randomised controlled **trials**, blinding is the method used to prevent those involved in conducting the trial from knowing which group a participant belongs, e.g., the active or control **group**. This is known as '*single blinding*'. Double blinding is when both the researcher and participants are unaware. Triple blinding is where relevant clinicians, as well as the participants and researchers (usually data analysts) are prevented from knowing what group participants have been assigned, e.g., active or control group. In this case, 'active' would mean receiving the intervention under investigation while 'control' would mean not receiving the intervention under investigation.

Case-control study – an observational design which compares two groups, where one has the condition of interest (case) and the other has not (control) to determine certain exposures can be attributed to the condition.

Clinical trial – Research studies that test the effectiveness, efficacy and safety of a new medicinal, surgical, or behavioural intervention.

Cohort study – A type of a longitudinal and observational study in which a defined group of people (cohort) is followed over time. A prospective cohort study assembles participants and follows them into the future. A retrospective (historical) cohort study identifies subjects from past records and follows them from the time of those records to the present.

Control group – A participant group that does not receive the experimental treatment / condition in a research study, providing a comparison to those who are exposed to the experimental condition or treatment. This is often in the context of a randomised controlled **trial**, other kind of clinical trial or evaluation studies, as well as in experimental research.

Ecological study – a population-based approach which examines the outcomes in response to certain exposures on a larger group level as opposed to an individual level. Groups are compared by certain characteristics (i.e. location, time, disease classification). For example, studying ex-Service personnel who were stationed at Camp Bastion during 2010 – 2012.

Experimental design – A study in which the investigators intervene to test a hypothesis and explore cause and effect, e.g., a randomised controlled trial. In experimental studies, the researchers deliberately manipulate the conditions the participant is exposed to which could include exposure to a certain task, treatment, or condition that can have an effect on the outcome.

Experimental hypothesis – Predicts that there is a relationship between the variables tested in the study and that the relationship is not by chance, i.e. that the **relationship is significant** and will be attributed to the experimental condition. The relationship can be defined by the study such as making a direct prediction, e.g., the Ex-Service personnel consuming the high-fibre diet will experience lower anxiety levels than the Ex-Service personnel consuming the non-high-fibre diet. This is also known as '*alternative hypothesis*'.

Frequency matching – A method used in studies to ensure balance in the distribution of specific participant characteristics between groups (for example, case and control) by matching various factors (such as age, sex, race).

Longitudinal study – A study that collects the same data from the same participants over time. This enables the ability to track changes over time and explore how past experiences may influence present experiences. Longitudinal studies can be used to investigate risk factors for reporting certain outcomes or experiences, to track the effectiveness of a treatment over time, or to explore changes in behaviour, thoughts, and actions over time.

Matched-groups design – An experimental design which involves participants from two separate groups being matched based on particular characteristics (i.e. gender). The goal is to ensure that the groups are equivalent in characteristics and to produce more comparable results.

Null hypothesis – The null hypothesis predicts that there is no significant relationship between the variables tested in an experiment, or that the effect studied in the experiment does not exist. Its purpose is to be disproved and for the alternative hypothesis to be accepted.

Observational study – A study in which the researchers observe the course of events without intervening / conducting an experiment.

Pilot study – A small scale study conducted to ensure the method is feasible and will work before a large-scale study is conducted.

Placebo – A fake or dummy treatment (intervention) that is designed to be harmless and to have no effect. This is often used as the 'control' condition in clinical and randomised controlled **trials** testing the effectiveness of a new treatment so that the treatment can be tested against receiving no treatment.

Placebo effect – A psychological response where people experience improvement in their symptoms / behaviours despite receiving a placebo treatment. This is often attributed to the participants' personal belief in the efficacy of the treatment.

Protective factor – A variable that decreases the likelihood and protects against negative outcomes and minimises the impact of **risk factors**.

Quasi-experimental design – Studies where the researcher cannot or does not deliberately manipulate the conditions or exposures of the participants, e.g., a cohort study.

Randomisation – *Relevant to randomised controlled trials* – This is the practice of using chance methods to allocate participants to the conditions of an intervention, e.g., randomly assigning participants to either the active or control group. This random assignment prevents researchers from deciding which participants receive which experimental condition and therefore eliminates **selection bias**.

Randomised controlled trial (RCT) – A randomised controlled trial comparing two or more groups of people to test the effectiveness of an exposure, intervention, or treatment: an experimental group who receive the new treatment and a control group, who receive the usual treatment or a placebo. The control group allows the researchers to see whether the treatment they are testing is more or less effective than the usual treatment. In a randomised controlled trial, the decision about which group a person joins is random (i.e. based on chance), and so randomisation is used. For example, a RCT may select participants from a UK population of ex-Service personnel who experience a mental health condition, randomly allocating them to either receive a new psychedelic drug treatment (experimental group) or placebo (control group). This can help researchers to test the effect of the exposure to the experimental condition (the psychedelic drug).

Risk factor – A variable which increases the chance or likelihood of a negative outcome.

Within-subjects experiment / Repeated measures design – An experiment in which each participant is tested under all experimental conditions within the study, meaning that they act as their own comparison rather than comparing them with another group. For example, one participant examined during different time periods or repeatedly exposed to the same measure, and comparing the data from the different time periods.

Quantitative data, analysis, and results

Association – A relationship between two characteristics / variables, such that when one happens, the other is likely to occur as well. Also known as ‘*correlation*’.

Baseline – An initial set of observations or data used for comparison during and after an activity is completed, to measure change.

Categorical variable – A variable that can take on one of a limited, and usually fixed, number of possible values, assigning each individual or other unit of observation to a particular group or nominal category on the basis of some qualitative property / descriptor, e.g., gender or ethnicity.

Causal effect / causation – An association between two characteristics / variables that can be demonstrated to be due to cause and effect, i.e. a change in one causes the change in the other. Causation can only be demonstrated by specific types of controlled experiments.

Confidence interval – We often want to know how likely it is that the results that we find based on the sample of participants who took part reflects what would be seen in the population of interest (e.g. Ex-Service personnel) as a whole. We can do this is in part by calculating a confidence interval which provides the range (interval) of scores within which the true effect or score falls with a certain level of assurance. The smaller the interval the more confidence we have in the data. Often a confidence level of 95% is used to calculate the interval, i.e. if the same study was repeated 100 times, in 95 out of those 100 times the interval would capture the unknown population average score or result, making us 95% confident that the real score / result of the whole.

Confounding factor – An external factor which is associated with the variables of interest. If this factor isn’t taken into account, it may lead to incorrect conclusions about the relationship between the variables of interest. For example, a **statistically significant** relationship is found between rank on leaving military Service and increased physical health problems, however, age was not included in the statistical analysis. Age, as it is associated with both rank and physical health, may actually be the important factor, not rank.

Correlation – Any directional association between variables. Correlation does not always mean nor imply causation. A positive correlation means the relationship between the variables is in the same direction, for example, as one variable increases, so does the other; a negative correlation is when the relationship between the variables is in opposite direction, or as one variable increases, the other decreases.

Dependent (outcome) variable – The variable that is being measured to tell you the outcome (e.g., level of depression) and which is affected by the intervention / treatment, or factors being studied (the independent variables).

Descriptive statistics – Statistical analysis of data used to describe, show or summarise data in a meaningful way. For example, mean, median, mode, range, standard deviation.

Effect size – a statistical measure of the strength of a relationship or association between two variables. In research, effect sizes are a reliable indicator of the significance of a finding.

Independent (exposure) variable – The variable that is being manipulated or observed / tested in the research, this may be the treatment / intervention received, or factors exposed to, or other characteristics.

Inferential statistics – Inferential statistics are produced after analysing quantitative data using statistical tests to conclude whether a hypothesis was supported by the results or to infer if the relationships between variables are happening due to a true association, or by chance alone. Often statistical or coding software such as 'SPSS', 'STATA' or 'R' are used to conduct statistical tests**.**

Interval data – Data measured in fixed units with equal distance between points on the scale, such as age, height, Celsius. Also known as *'linear data'*.

Mean – The average score within a distribution of scores, e.g., the average age of the participants. It is calculated by taking the total number and dividing by the number of participants / data points.

Median – The mid-point in a distribution of values.

Mode – The most frequently occurring score in a set of data.

Nominal data – Type of categorical data which includes labelled variables of no set rank or order, e.g., gender.

Normal distribution – A term that represents how data is normally distributed in real world phenomena (e.g., height), with the average being the most common value and most of the other values being spread out evenly close to it. When data is normally distributed, it is represented in a graph by a symmetrical arrangement forming a bell-shaped pattern with the mean (average) falling in the centre at the highest peak. This shows that the data near the mean are more frequent in occurrence than data that is far from it. When the data does not display a normal distribution pattern, and it is skewed in either direction this means the distribution of values is not evenly distributed from the average and could mean there are extreme values (outliers) that are different from the expected norm that are skewing the curve. Statistical tests assume normal distribution for valid results and to make assumptions about the population.

Odds ratio – a quantifiable measure of how strongly an event is associated to an exposure, e.g., representing the 'odds' or likelihood of an event or outcome occurring.

Ordinal data – Type of categorical data that can be ranked or ordered, e.g., agreement level.

Outlier – A score that is much higher or lower than the rest of the scores in a set of values.

p value – The likelihood of obtaining the sample result if the null hypothesis were true, or the likelihood of the obtained result being produced by a random chance and not actual effect. It determines the significance of the results.

Probability – The likelihood of something occurring which can be expressed as a number or a percentage.

Proportion – Refers to the part or share of a specific population.

Range – The distance between the lowest and the highest value in a set of values.

Response rate – Refers to how many people end up participating in a study from everyone invited and is usually expressed as a percentage. For example, if 100 people were invited to participate and 60 agree and take part, the response rate is 60%.

Skewed distribution – An arrangement of data that is not symmetrical with some data clustered to one end of the distribution as potential outliers.

Standard deviation – The average spread of scores around the mean showing how well the mean represents the sample data. The greater the standard deviation, the more spread out the scores are; therefore a smaller standard deviation is desirable.

Statistical power – The probability that a statistical test will detect an effect. Power is affected by the size of the sample.

Statistical significance – If the result of a statistical test is significant, that result is highly unlikely to have occurred by chance, indicating that the intervention performed had affected the dependent value and produced the observed change.

Variable – A measured construct, characteristic, or factor that is liable to change or that can take on different entities that are included in a study, e.g., gender, age, scores on a literacy test, years of military Service.

Participants, samples, sampling methods, and recruitment

Cluster sampling – A sampling method involving splitting the population into heterogeneous groups called clusters and randomly selecting from within the cluster or the whole cluster from the sample.

Convenience sample – A group of individuals who are being studied because they are conveniently accessible to the researcher in some way. For example, this might be beneficiaries of a support organisation.

Participant – Someone who voluntarily takes part in a research study, also known as *'subject'*.

Population – The specific group of people being studied, e.g., the population of UK Ex-Service personnel or the population of UK Army Ex-Service personnel.

Purposive / selective sampling – A sampling method where participants are selected based on having specific characteristics. It is predominantly used in qualitative research and allows the researcher to draw on a sample from a specific population who have certain shared characteristics or experiences / exposures. For example, if conducting an interview study to understand the mental health experiences of male Ex-Service personnel who have been injured during combat in 2010, then the study sample would only include male Ex-Service personnel who were injured during combat in 2010.

Random sampling – A sampling technique where everyone in the target population has an equal chance of being selected because it randomly selects participants. This sampling method is most likely to lead to a representative sample but is often difficult or unfeasible to execute.

Representative sample – To ensure research is reliable and valid, those who take part (the sample) must represent the population of focus. For example, if researching the impact of military Service on UK military children, a representative sample would reflect the characteristics of the whole UK military children population. If, however, the sample only included those whose parent served in the Army, were 90% male, and 90% lived in the Southwest of England, this would not represent the whole UK military children population and would not be a representative sample.

Sample – A group of people drawn from the target population to take part in a research study (the participants) to represent the population under study.

Sampling – The process of selecting the group of people who will take part in the research. Depending on the research question and method being used, different kinds of approaches to sampling (ways of recruiting participants) will need to be used. The choice of sampling method may also be affected by available funding, resources and access to certain populations.

Snowball sampling – Existing research participants are asked to share the information about the study with others they know who would be eligible to take part.

Stratified sampling – A method of sampling that involves the division of a population into smaller subgroups called ‘strata’. In stratified sampling, or stratification, the strata are formed based on members’ shared attributes or characteristics, such as branch or rank of military Service.

Data collection approaches and methods

Data linkage – Refers to the process of collating information about a particular individual, object, or event from various sources of data to create a unified data set, e.g., linking ex-Service personnel inpatient hospital records and outpatient community treatment records.

Focus group – A data collection method used in qualitative research which involves gathering a small group of participants together to discuss their experiences on a set topic as guided by questions from the researcher.

Oral histories – A method which involves collating, studying, and analysing narratives or stories about individuals' past experiences. Typically, these are conducted as interviews to provide a historical account of personal experiences that can be preserved and made public after data collection.

Semi-structured interview – Interviews which have pre-determined open-ended questions or topic areas. However, the interviewer can be flexible in the order the questions are asked and can ask unscripted follow up questions or prompts to allow the interview to be responsive to participants' responses, so that the process enables the exploration of relevant experiences shared by the participants. This is often used in inductive qualitative studies.

Structured interview – Interviews where the questions are pre-determined and must be asked in the format and order agreed before data collection.

Survey – A tool to collect data using open or close-ended questions, often to collect 'self-report' data such as participants' responses to measures of psychological or physical outcomes / symptoms, as well as demographic information. Often interchangeable with '*questionnaire*'.

Unstructured interview – An interview with no fixed questions but with the broad topic and research question in mind. This is often used in inductive qualitative research, especially those using narrative approaches that may be interested in gathering insights via the participant sharing their 'story' uninterrupted or influenced by the researcher.

Wearable technology – These are tools utilised to help researchers collect real-time, continuous data on a wide range of health-related metrics e.g., via watches that measure heart rate.

Data synthesis methods

Meta-analysis – An approach of collating the data from multiple quantitative research studies on the same topic to provide a summary of the overall results. Statistical methods are used to combine the results from each study to create a “super study” with many more participants than a single study could have on its own. The aim is to look at the results across the different studies and understand where they confirm each other and where there are conflicts, to gain an overall understanding of the evidence to draw stronger conclusions.

Narrative review – An approach to reviewing several studies examining the available evidence to give an overview of evidence on a given topic. Narrative reviews use less formal and less structured approaches than systematic reviews and are often used when wanting to provide a broad overview of a topic, to explore emerging research ideas, identify gaps in the literature, or synthesise complex research with diverse methodologies.

Rapid evidence review – An approach to evidence synthesis which is usually performed to inform decision making in a short timeframe. It is restricted to certain databases, data inclusion criteria, and use of less resources but aims to provide an overview of a topic using systematic methods.

Scoping review – Identifies and maps the available evidence on a given topic using structured methods.

Systematic review – A synthesis of the evidence on a clearly formulated question that uses systematic and explicit methods to identify, select, and critically appraise relevant published data, and to collect and analyse data from the studies that are included in the review. It generates summary findings on a specific topic.

Research reporting

Abstract – A brief summary of the study's context and rationale, research question, methods, results and conclusions.

Grey literature – Material which is not published in academic journals and is not always peer reviewed. It can include internal reports, government documents, committee minutes, conference papers, factsheets, newsletters and campaigning material.

Journal – A regular publication in which researchers formally report the results of their research using pre-determined guidelines on reporting. Usually, journals are organised by themes in a particular field of study. Publication in academic journals usually requires a process of peer review where others with expertise in the research area review and critique the research to ensure it is of good quality, reliable and valid. This helps to ensure that published research is credible, robust, and trustworthy.

Methods section – Describes how the research was conducted and should be detailed enough that another researcher could replicate the study based on what is described. It should also provide enough detail so that reliability and validity of the research can be assessed.

Peer review – When people with expertise in the subject, read and comment on a research application / report to provide critique on the quality, conclusions etc. Published articles in journals are usually peer reviewed.

References – A list of all sources of information cited in a research report used to substantiate claims made. This can also be called a bibliography.

Further reading

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