

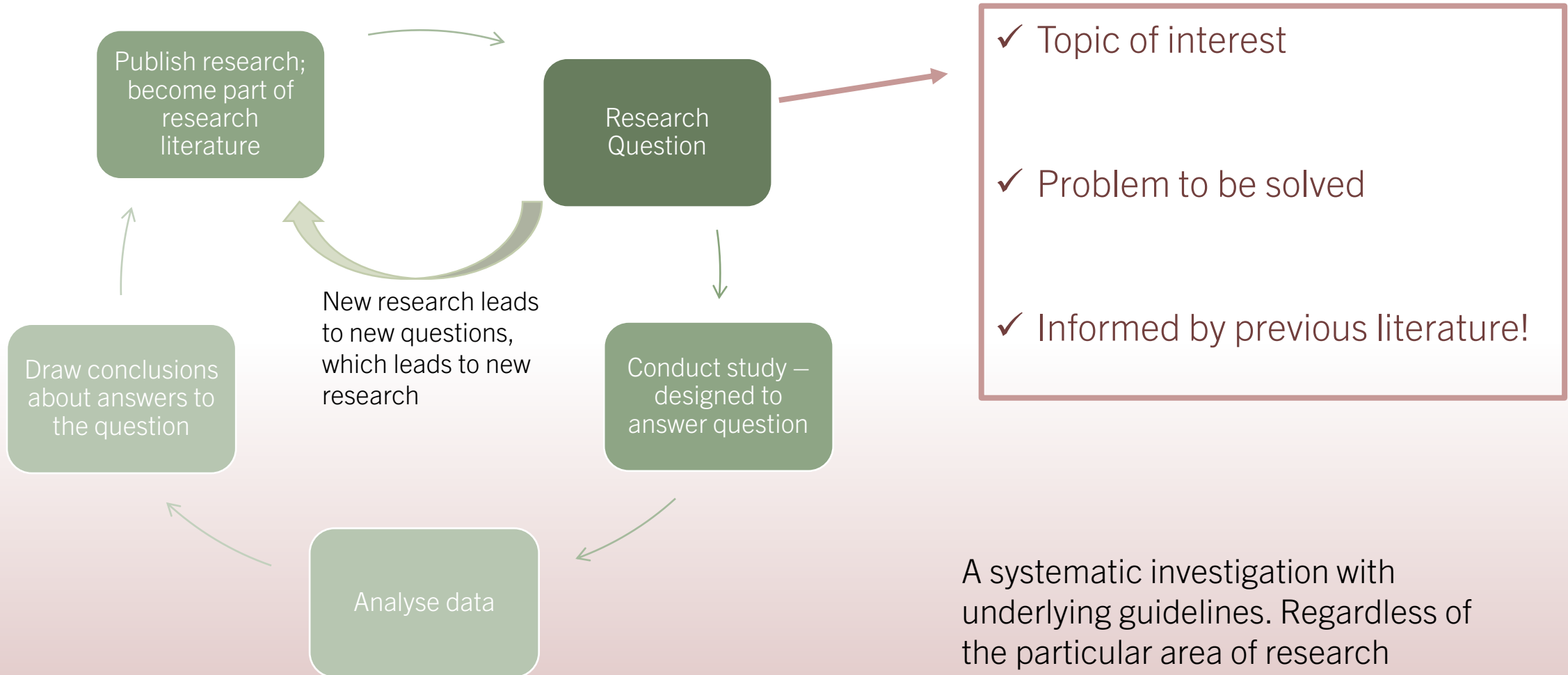


RESEARCH METHODS

Introduction to Research Methods

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WHAT IS RESEARCH?



WHAT IS RESEARCH?

- Goals of research:

DESCRIBE behaviour using systematic methods of collecting data

EXPLAIN causes of behaviour

PREDICT behaviour – allows consideration of conditions under which a behaviour will or will not occur

CHANGE / CONTROL behaviour to make lasting change

What does a psychologist research??

RESEARCH



Research is a systematic inquiry to describe, explain, predict, and control the observed phenomenon. Research involves inductive and deductive methods.

INDUCTIVE AND DEDUCTIVE METHODS



Inductive methods are used to analyse an observed event

Associated with **Qualitative** Research

Idiographic data collection – views psychology as the study of individuals, exploration of what makes us unique/individual



Deductive methods are used to verify the observed event

Associated with **Quantitative** Research

Nomothetic data collection – views psychology as the study of groups of people in order to establish norms; explores what we have in common

TYPES OF RESEARCH

Both methods allow for the collection of *empirical data* that is recorded from the research itself

Quantitative

Systematic investigation of phenomena by gathering numerical / quantifiable data – performance of statistical analysis

Data is **NUMBERS**

Qualitative

Focuses on obtaining data through open-ended and conversational communication

Data is (often) **TEXT / WORDS**

Qualitative Research Methods





CASE STUDY RESEARCH

- An in-depth analysis of an individual, group, or event
- Seeks to identify how humans and other animals behave, particularly in their real-life context
- Relies on multiples sources of evidence/research in most cases



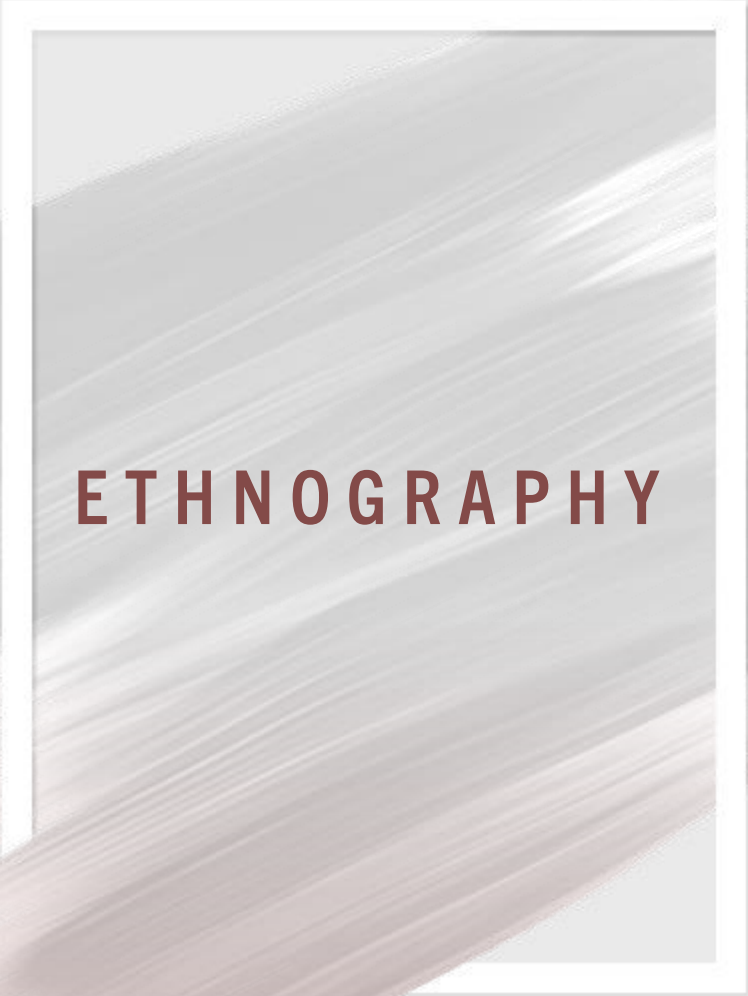
RECORD KEEPING

- Using already existing, reliable documents as a data source
- Material sourced to collect relevant data that can likely be used in new research



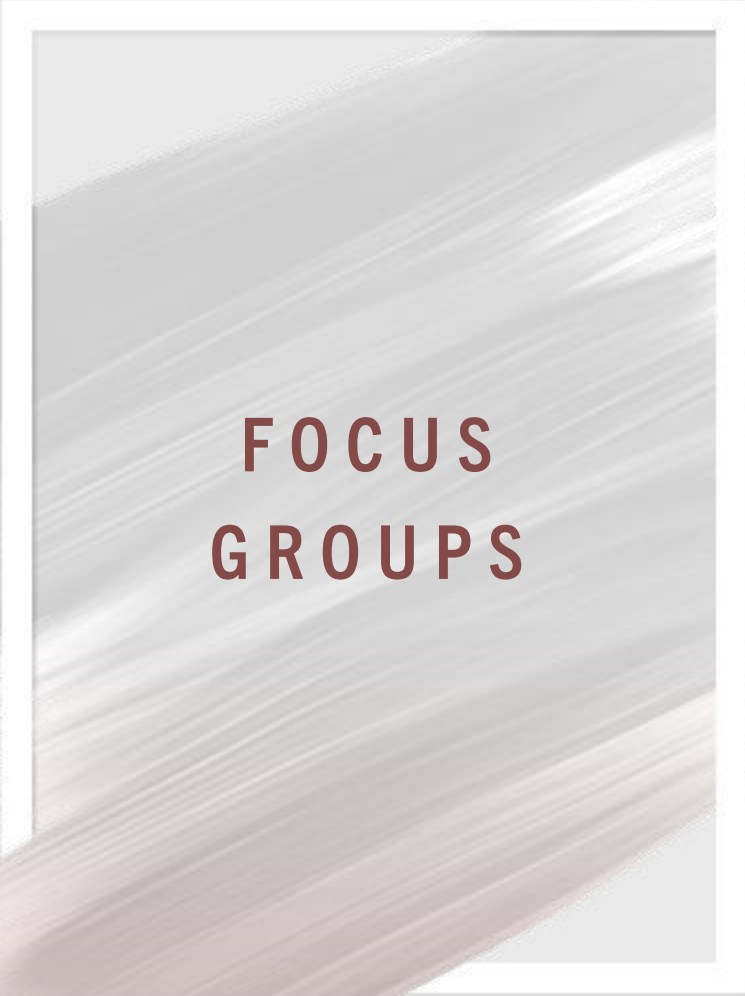
OBSERVATION

- Researcher observes a behaviour it occurs in a natural setting, and attempts to avoid influencing that behaviour
- Nothing is manipulated
- **Habituation:** the process in which people typically adapt to and ignore the presence of an observer as time passes



ETHNOGRAPHY

- The most in-depth observational method that studies people in their naturally occurring environment
- Requires researcher to adapt to the populations environment
- Relies on first hand experience of natural settings over discussing participants experiences



FOCUS GROUPS

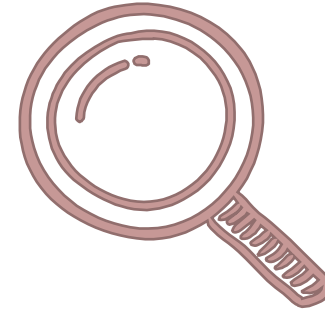
- One of the most common qualitative methods
- Includes a small number of participants (6-10) who have something in common
- Allows individuals to interact with each other in response to a particular topic
- Make use of group dynamics to stimulate discussion, generate ideas and gain insights



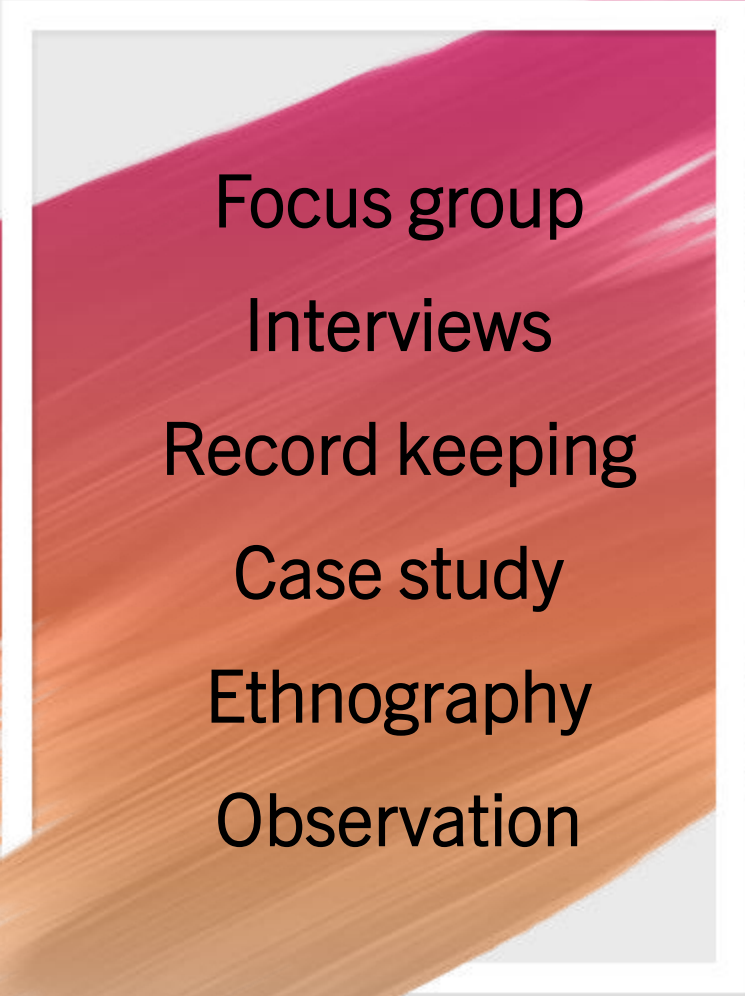
ONE-TO-ONE INTERVIEWS

- One of the most common qualitative methods
- Personal interview with one participant at a time
- Can be carried out face-to-face or via telephone
- Tend to last between 30 mins to 2 hours
- Face-to-face gives a good opportunity to read body language

TASK



Match the example research questions to the method of data collection that would fit best



Focus group
Interviews
Record keeping
Case study
Ethnography
Observation

Exploring children's behaviour in a school playground

Identifying historical trends in women's' hysteria and incarceration

Exploring the lived experiences of individuals with bipolar disorder

How do minority cultures live with and treat mental health disorders

Women's opinions and experiences of post-partum depression

Women's experiences and experiences of pre-menstrual tension

Focus group

The diagram features a white rectangular box on the left containing a list of research methods. To the right of this box is a list of six research topics. Dark red arrows originate from the methods and point to specific topics: 'Focus group' points to 'Exploring children's behaviour in a school playground'; 'Interviews' points to 'Identifying historical trends in women's' hysteria and incarceration'; 'Record keeping' points to 'Exploring the lived experiences of individuals with bipolar disorder'; 'Case study' points to 'How do minority cultures live with and treat mental health disorders'; 'Ethnography' points to 'Women's opinions and experiences of post-partum depression'; and 'Observation' points to 'Women's experiences and experiences of pre-menstrual tension'. The background of the slide has a large, abstract brushstroke in shades of pink and orange.

Interviews

Record keeping

Case study

Ethnography

Observation

Exploring children's behaviour in a school playground

Identifying historical trends in women's' hysteria and incarceration

Exploring the lived experiences of individuals with bipolar disorder

How do minority cultures live with and treat mental health disorders

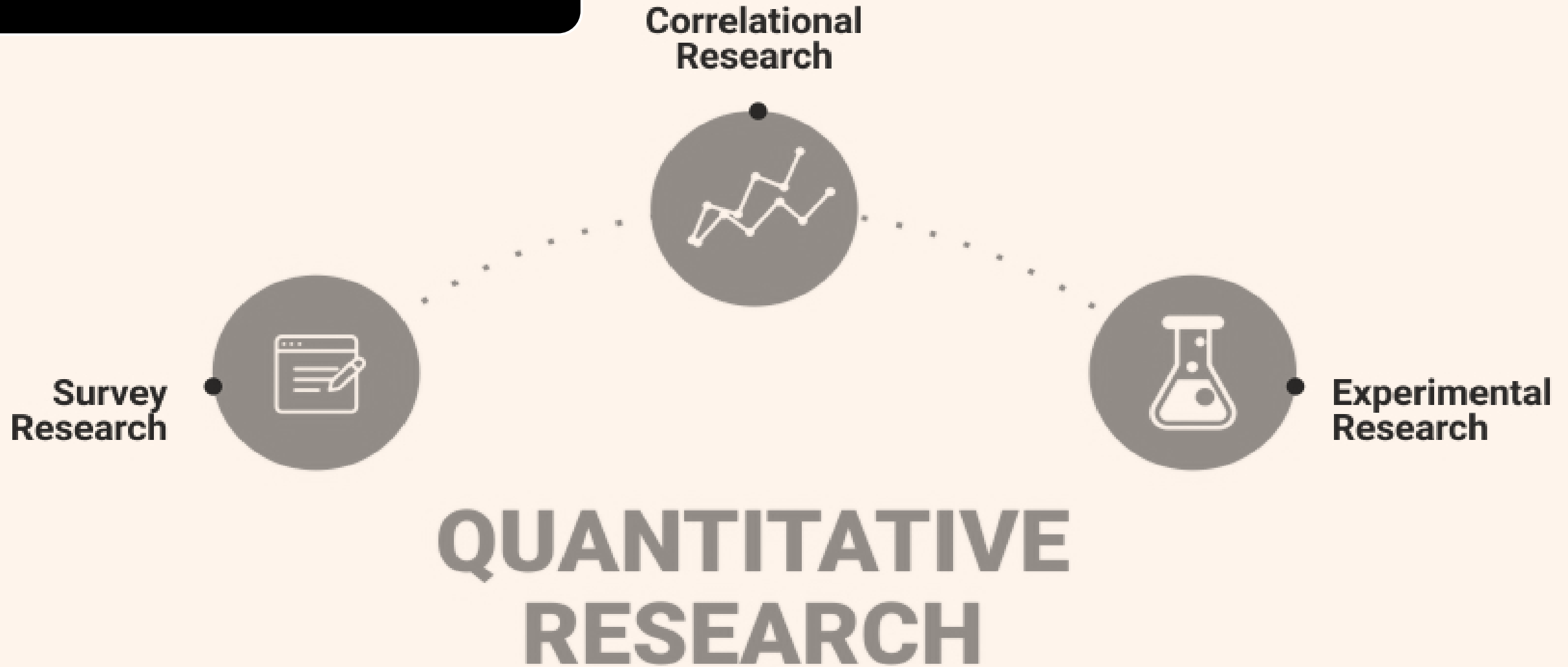
Women's opinions and experiences of post-partum depression

Women's experiences and experiences of pre-menstrual tension



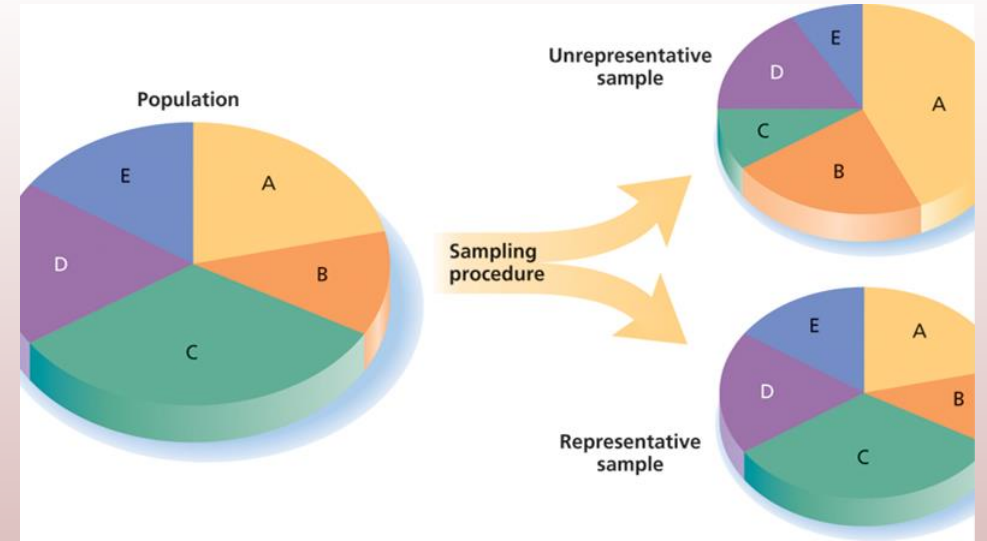
**TIME FOR A
BREAK**

Quantitative Research Methods



SAMPLING

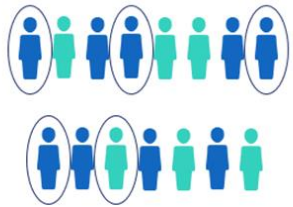
- With nomothetic techniques, in particular, it is important that those who take part in psychological studies are relatively similar to other people. This is where *sampling* becomes important...
- **Sampling** = process of selecting research participants who will provide the data for a psychological research project
We aim for a representative sample



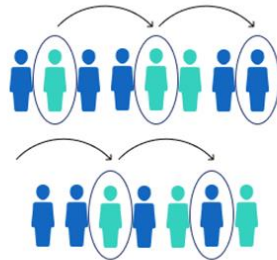
TYPES OF SAMPLING

Probability-based sampling methods

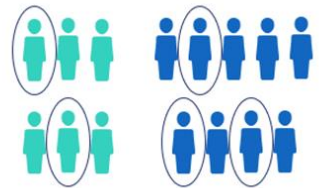
Simple random sample



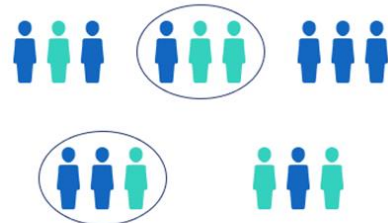
Systematic sample



Stratified sample

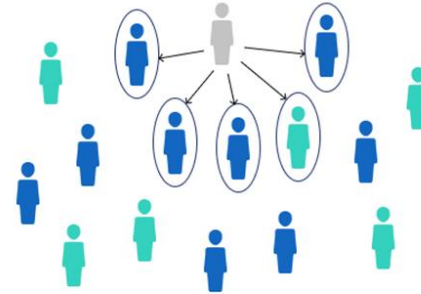


Cluster sample

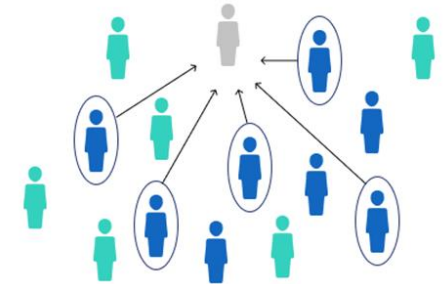


Non-probability-based sampling methods

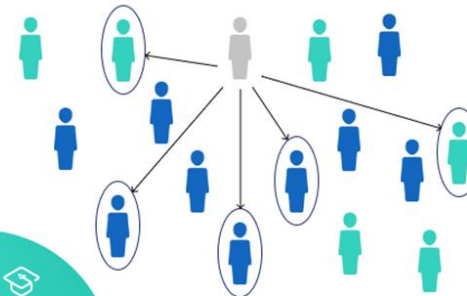
Convenience sample



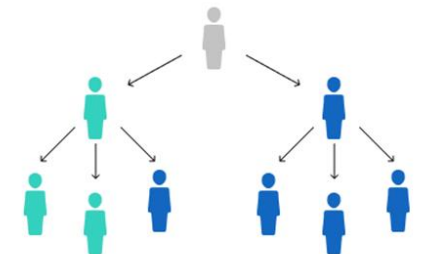
Voluntary response sample



Purposive sample



Snowball sample



ONLINE SAMPLES

In the current climate, the internet has become a very important source for participants

ADVANTAGES

- ✓ Easy and inexpensive way to collect data
- ✓ Not tied to taking part in a physical location or time
- ✓ Very large (diverse) sample
- ✓ Automatic scoring

DISADVANTAGES

- × Unrepresentative samples – access to PC/internet
- × Less control – do not know who is taking part or level of concentration
- × Researcher not available to deal with any issues

SAMPLE SIZE

- Must be considered before research begins
- Not all the population will be tested.

Thus, how many participants are required in order to find a significant effect.

- Links to

Power: the likelihood an effect will be demonstrated if there is one there

Effect size: the actual difference/effect that is found

CORRELATIONAL RESEARCH

A non-experimental method

Investigates variables that exist amongst people irrespective of any research intervention

Investigating existing group differences, or correlation (relationship)

CORRELATIONAL RESEARCH



Can establish generalisation outside of a lab



Can generate ideas for further laboratory study



Allows examination of variables that may not be practical or ethical to study in the lab

CORRELATIONAL RESEARCH

Three components to correlational research:



Researcher
measures one
variable (X)



Research measures
a second variable
(Y)



Research
(statistically)
determines whether
(X) and (Y) are
related

EXPERIMENTAL RESEARCH

When we are looking for differences between two or more groups, we will normally use an experimental design

Important when exploring causal relationships

Can identify whether one thing affects another

EXPERIMENTAL RESEARCH



The experiment is generally assumed to be the most reliable and effective method for demonstrating that one *variable* has an effect on another *variable* to change



The term VARIABLE is used to describe the empirical object or phenomenon that we are observing

SURVEY RESEARCH

When we are looking for differences between two or more groups, we will normally use an experimental design

Important when exploring causal relationships

Can identify whether one thing affects another

SURVEY RESEARCH



Information about a topic is obtained by administering questionnaires or interviews to many people



Types of surveys:

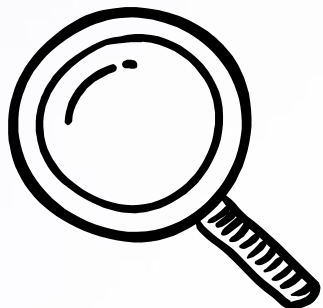
- Cross-sectional
- Longitudinal / prospective
 - Able to follow up over time
 - Allows prediction / causality

SURVEY RESEARCH

Allows us to collect large amounts of data quickly and inexpensively

Can ask about an almost limitless variety of attitudes, perceptions, experiences

BUT – self-report may be biased



TASK

Fill in the CAMI
questionnaire, and score
yourselves using the scoring
key



**TIME FOR A
BREAK**



SESSION 2

Ethics

RESEARCH ETHICS....

WHY???



RESEARCH ETHICS

- **British Psychological Society Code of Human Research Ethics**

The moral principles by which we conduct ourselves as psychological researchers

- As researchers, we have a moral obligation to...

Our participants

The academic / professional field

Employers / funding bodies

Ourselves

WHY DO WE NEED ETHICS?

Ensure no undue harm is caused to participants

Counteract power issues

Protect ourselves as researchers

Important to have safeguards in place for those who use the services of psychologists

Part of psychology students learning outcomes is to demonstrate an awareness of appreciation and importance of ethical standards in research

WHY DO WE NEED ETHICS?

- We deal with people in many different contexts

Students; participants in sensitive research settings, patients undergoing therapy, employees in business settings

Human beings and animals are sentient living things(i.e. they can experience pain, fear, etc.)

Human beings are thinking creatures, capable of feeling guilt, embarrassment etc.

CLASSIC (CONTROVERSIAL) STUDIES

- Ethical issues have not always been high on list of concerns for psychologists...

- [Asch \(1951\) – conformity](#)

Led to damage to self-image, and deception present

- [Zimbardo \(1973\) – Prisoners and guards](#)

Led to psychological damage (stress, self-image)

- [Hofling et al \(1966\) – study of nurses' obedience](#)

Damage to self-image, deception

- [Milgram \(1963\) – Obedience/ social influence](#)

All of the above



FOUR MAIN VALUES/PRINCIPLES (BPS, 2018: CODE OF ETHICS AND CONDUCT)



Respect

Competence

Integrity

Responsibility

1. RESPECT

- Recognising the importance of your participants.
- “sensitivity to the dynamics of perceived authority or influence over people, with particular regard to peoples rights”
- Considerations:



Privacy and confidentiality

Participants right to withdraw or not to participate

Informed consent – plus acting on their wishes

People have a right to be treated as an individual

Full debriefing

Compassion, empathy, impact on environment, etc

2. COMPETENCE

- Ability to provide specific professional services
- Services should not be provided outside of psychologists areas of knowledge/skill, etc
- Considerations:



3. INTEGRITY

- Honesty and accuracy in how research is conducted and published.
- Remaining objective and open-minded in challenging own behaviour/beliefs
- Considerations:

Transparent
and honest
research – lack
of deception

Professionalism
– professional
relationships

Respect others
works, even if
we don't agree
with it

Fairness in data
collection and
reporting
findings

Addressing
misconduct

Accurate
unbiased
representation

4. RESPONSIBILITY

- Awareness of responsibility ensures that trust of others is not abused, influence is properly managed and duty towards others is always paramount
- Considerations:



Professional
accountability

Responsible use of
skills and
knowledge

Respect for welfare
of participants
(humans, non-
human animals,
living world)

Potentially
competing duties

RISK IN RESEARCH

“Risks attend us every moment in life, and to say that research should involve no risks would be inappropriate” (BPS).

BUT

Research ethics form should convince the ethics committee that the researcher:

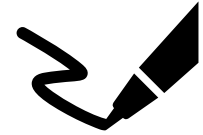
- Is aware of the potential harms/consequences

- Has ensured the participants know their rights as participants

- Has put steps in place to minimise such harms occurring (with follow-up procedures if necessary)

- Demonstrates a commitment to relevant ethical and professional standards

- Written **informed** consent – at appropriate levels
- Clarity and comprehension of research materials
- No potential coercion



KEY ETHICAL CONSIDERATIONS IN ANY PROJECT



Written informed consent
– at appropriate levels



Clarity and comprehension
of research materials
Appropriate for target
audience?



No potential coercion



Right to withdraw



Debriefing



Potential for
harm/discomfort/
distress



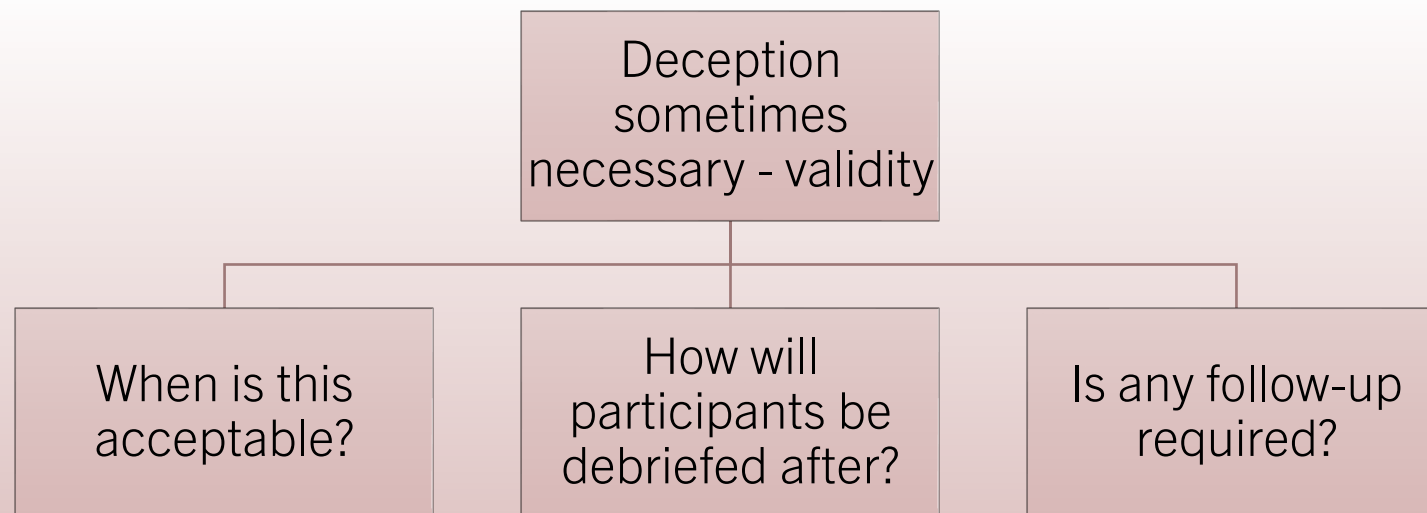
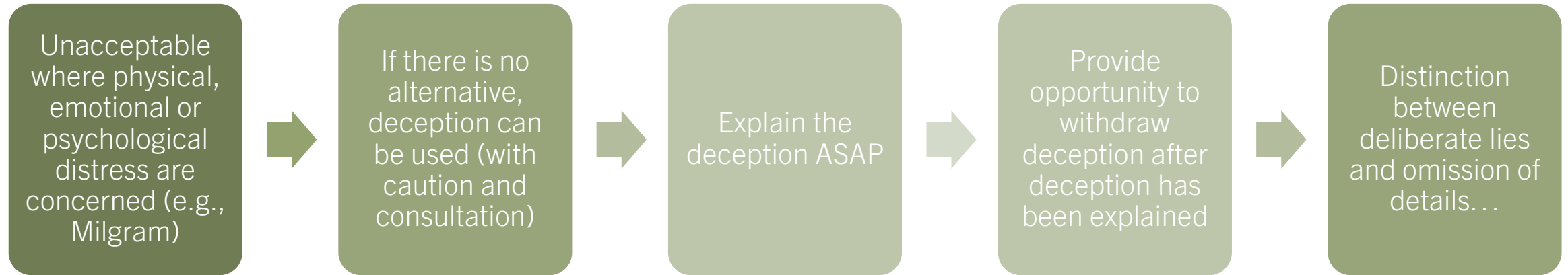
Confidentiality/
Data Protection

INFORMED CONSENT

- What will participants be expected to do?
- How long will it take them?
- Rights of the participants (confidentiality, withdrawal, etc)
- Any foreseeable risks to taking part?
- Researcher details for contact



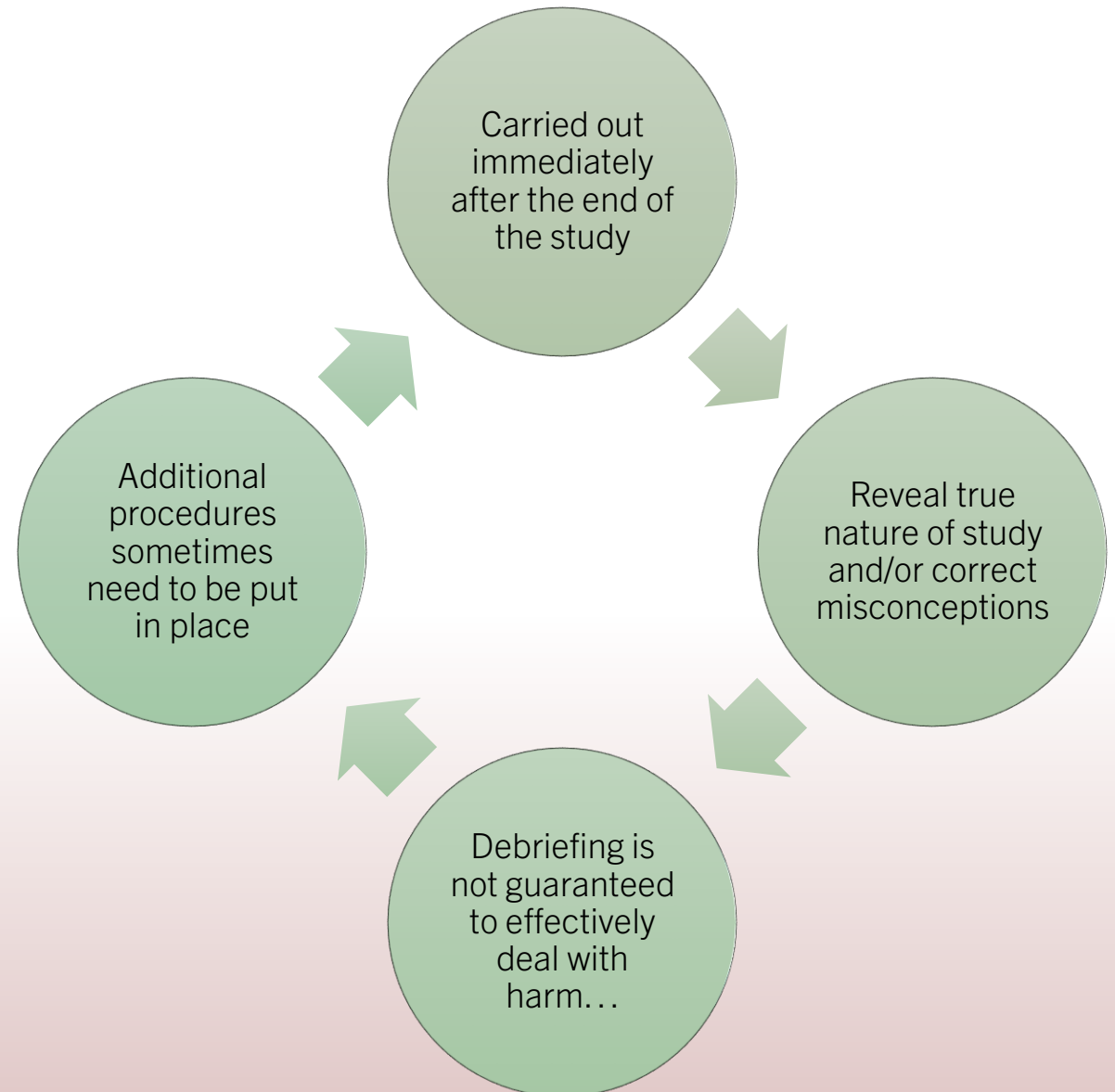
DECEPTION



DEBRIEFING

- Full disclosure of the nature of the study
- In some circumstances, the verbal description of the nature of the investigation may not be sufficient to eliminate all possibility of harmful after-effects.

For example, a study in which negative mood was induced requires the induction of a happy mood state before the participant leaves the study setting.



PRIVACY – CONFIDENTIALITY – DATA PROTECTION



ANONYMITY / CONFIDENTIALITY

Is your data:

- a) confidential?
- b) anonymous?

Confidential

How will you ensure any hard copies or electronic data is stored confidentially?

Locked filing cabinets, password-protected files, cloud storage, etc

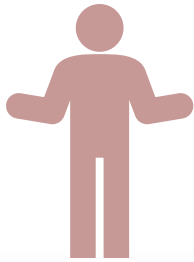
Anonymous

Any identifiable information from questionnaires, transcripts, etc should be removed – replaced with a unique ID number

Consent forms should be stored separately from main data (if applicable)

Qualitative data must use pseudonyms or ID numbers in place of real names

POTENTIAL FOR DISCOMFORT, DISTRESS, AND ANXIETY



Does your research have any potential for making people more anxious, worried or distressed?



If so, what efforts are you making to minimise this risk?



What will you do if someone does report distress as a result of taking part in your research?