



# ECAS7003 Behaviour Change in Context

SESSION TWO: LECTURE TWO

INTERVENTION DEVELOPMENT & EVALUATION

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# Reflections from last session...

- ▶ Lots of different models explaining health-related behaviour
- ▶ How do we select the most appropriate model for an intervention?
- ▶ How do we evaluate its effectiveness?

# Theory-based research

- ▶ Psychological theories should underpin any research into health-related decision making
- ▶ Health psychologists have used a variety of theories, measures, and research designs to how people make decisions about their health
  - ▶ Qualitative
  - ▶ Quantitative
  - ▶ Mixed methods research

# What is an intervention?

- ▶ **interventions** in health psychology are planned actions aimed at bringing about change in people's health
- ▶ A wide range of intervention strategies exist
- ▶ Often involves structured activities used to modify behaviour, emotional state, or feelings

# Use and usability: are theoretical models of behaviour change practical?

“Theoretical models have considerable potential for reducing muddle, enhancing models and guiding “meddling” in the process of behaviour change. But is there a gap between current “use” and potential “usability”?”

“There may be nothing quite so practical as good theory, but only if the good theoretical model is used well in practice”

*Marie Johnston, Emeritus Professor of Health Psychology.*

# Use and usability: are theoretical models of behaviour change practical?

Johnston (2014): Three main functions of models of behaviour change:

- ▶ Reducing the muddle: define constructs so that users know when they are exploring the same – or different – phenomenon
- ▶ Modelling the process: define relationships between constructs so that the process of behaviour change can be modelled
- ▶ Guiding meddling: through identification of causal determinants of behaviour, can be used to intervene to achieve behavioural outcomes

# Use and usability: are theoretical models of behaviour change practical?

Johnston (2014): Potential problems:

- ▶ Can only achieve these three things if used well
- ▶ Are there too many non-distinct constructs?
- ▶ Do we only measure the “easy bits”?
- ▶ Confused measurement of constructs may increase muddle
- ▶ Do they predict and explain difference between and within people?

# Use and usability: are theoretical models of behaviour change practical?

Johnston (2014): Evidence needed to guide interventions

- ▶ WHO: to select recipients or tailor interventions? Evidence of moderation
- ▶ WHAT: target constructs for intervention
- ▶ HOW: choose intervention techniques based on evidence

# Interventions: changing health behaviour:

- ▶ Many of the risk factors for disease and illness are behavioural e.g.
  - ▶ eating behaviour
  - ▶ smoking
  - ▶ lack of exercise
- ▶ Ability to change behaviour key to tackling many of the health issues in society today

# Assessing medical interventions

- ▶ Interventions must be based on sound empirical evidence
- ▶ Clinicians must be able to justify choice of treatment and show that they are able to deliver it effectively
- ▶ Use of psychological measures to achieve this

# Interventions in Health Psychology

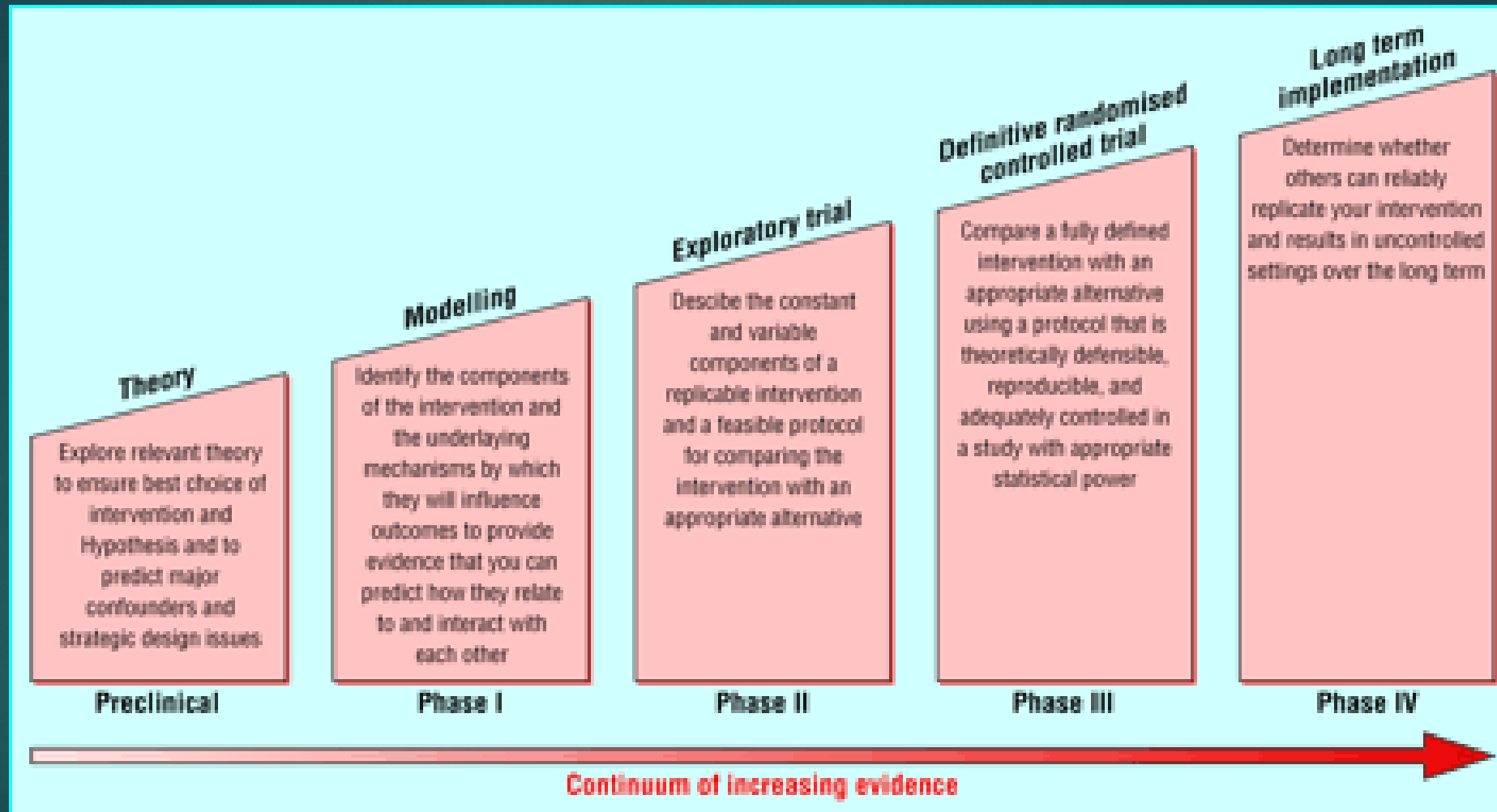
Must follow stringent guidelines for assessing clinical effectiveness as any medical treatment

MRC framework

The randomised controlled trial

# The MRC Framework for developing and evaluating interventions

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## **Developing interventions to change health-related behaviour**

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- Health psychology theory provides a framework for:
  - 1-understanding behaviours and beliefs and ;
  - 2-exploring how these factors may relate to illnesses.
- These theories have drawn on:
  - 1- social cognition models,
  - 2-implementation intentions and ;
  - 3-the self regulatory model to inform interventions aiming to change behaviours and beliefs.

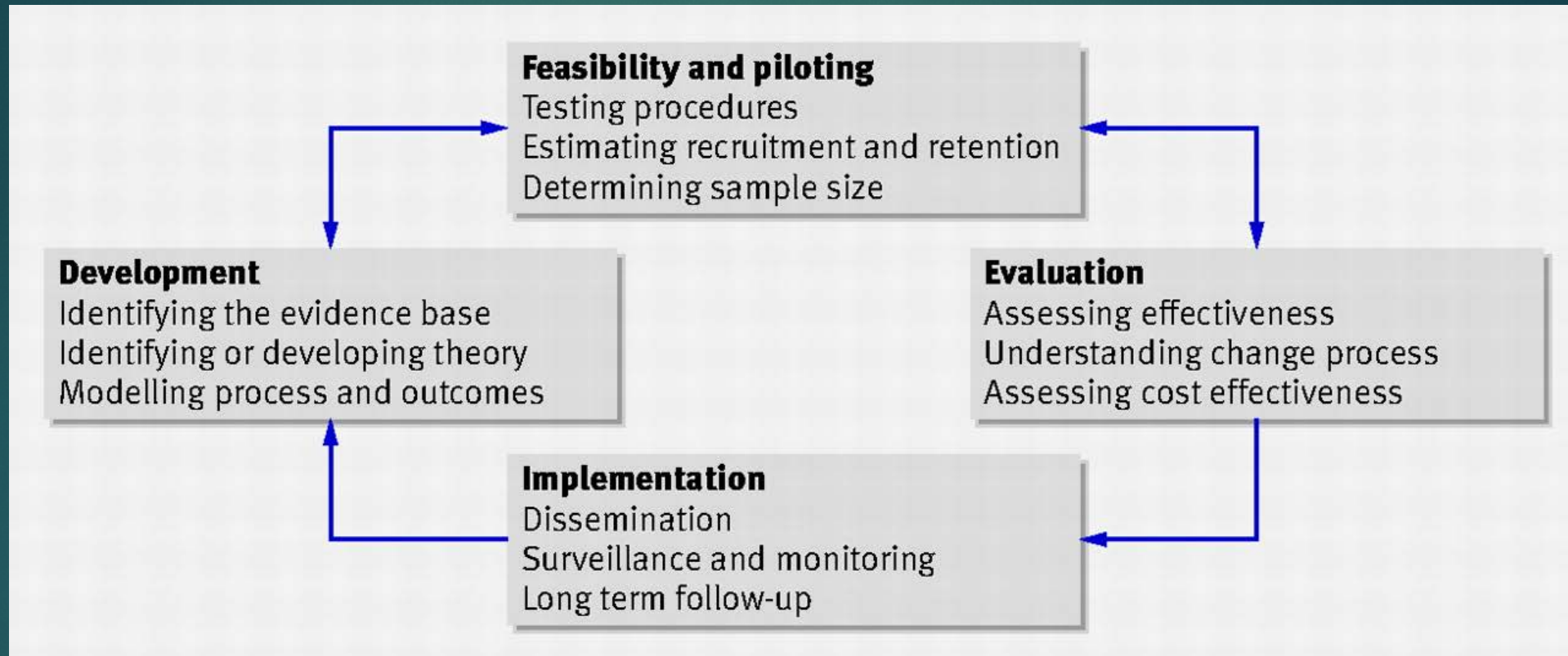
# Glanz (2016)

- ▶ The choice of a suitable theory or theories should begin with identifying:
  - ▶ the problem,
  - ▶ goal
  - ▶ units of practice,

“Choice should not be based on selecting a theoretical framework because it is intriguing, familiar, or in vogue. One should start with a logic model of the problem and work backwards to identify potential solutions”

<http://www.esourcerearch.org/eSourceBook/SocialandBehavioralTheories/8ChoosingtheRightTheory/tabid/743/Default.aspx>

# Intervention development



# The APEASE criteria for designing and evaluating interventions

| Themes: APEASE criteria | Codes                                                 |
|-------------------------|-------------------------------------------------------|
| 1. Affordability        | Influence of cost to patients                         |
| 2. Practicability       | Efficiency of referral procedure                      |
|                         | Efficiency and effectiveness of ongoing communication |
|                         | Fitting in with existing initiatives                  |
| 3. Effectiveness        | Is there a need?                                      |
|                         | Will it improve outcomes?                             |
| 4. Acceptability        | Trust                                                 |
|                         | Personal relationships                                |
|                         | The burden of care on GPs                             |
| 5. Safety/side effects  | Worsening of outcomes                                 |
| 6. Equity               | Patient diversity                                     |

# Evaluating interventions

# When? How often?

- ▶ Interventions require pre and post measures in order to show change
- ▶ Often require a control group
- ▶ Short-term versus long-term follow-up?

# Recap: choose appropriate measures

- ▶ Use validated scales
- ▶ Appropriate for target population
- ▶ Strong psychometric properties
- ▶ Other data?
  - ▶ Physiological measures?
  - ▶ Behaviours
  - ▶ Demographics

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# Choosing measures



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# Key ethical considerations in intervention research

- ▶ 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