Workshop outline

09.30-11.00 Emma Davies

Development and specification of novel behavioural interventions

11.00-11.30 Coffee

11.30-13.00 Rosaria Galanti

Designing and Planning Research to assess causality in complex interventions

13.00-14.00 Lunch

14.00-15.30 Jeremy Segrott

Real world complex intervention research – recruitment, retention and process evaluation

Development and specification of novel behavioural interventions

Applying qualitative methods in exploratory work and acceptability testing

Outline of this session

- Introduction to workshop topic area

- Frameworks and stages in developing interventions

- Overview of the development process undertaken in example project

- Using qualitative methods in exploratory work and acceptability testing

- Integrating the findings and specifying an intervention

WORKSHOP TOPIC:
A PARENTING INTERVENTION TO REDUCE ALCOHOL MISUSE IN YOUNG PEOPLE

- 87% of 15 and 16 year olds European pupils reported ever having tried alcohol *(Hibell et al, 2012)*

- UK teenagers drink more than their European counterparts *(Hibell et al, 2012)*

- There are numerous health risks associated with drinking under age 15 *(Newbury-Birch et al, 2009)*

- Evidence shows that levels of alcohol consumption in 11-13 year olds may be rising in the UK *(Fuller, 2012; Smith & Foxcroft, 2009)*

PARENTS & YOUNG PEOPLE'S DRINKING

- Parents are an important influence on young people as both role models and rule makers

- Mixed messages about drinking at home and parental supply have a negative impact

- Parenting interventions can be effective

- But some require sustained involvement

- **Could we design a new lower intensity parenting intervention?**

- **Could we use a digital format, for example a website or a mobile phone application?**

INTERVENTION DEVELOPMENT DEFINITION

"Intervention development is the structured process of selecting and combining sets of

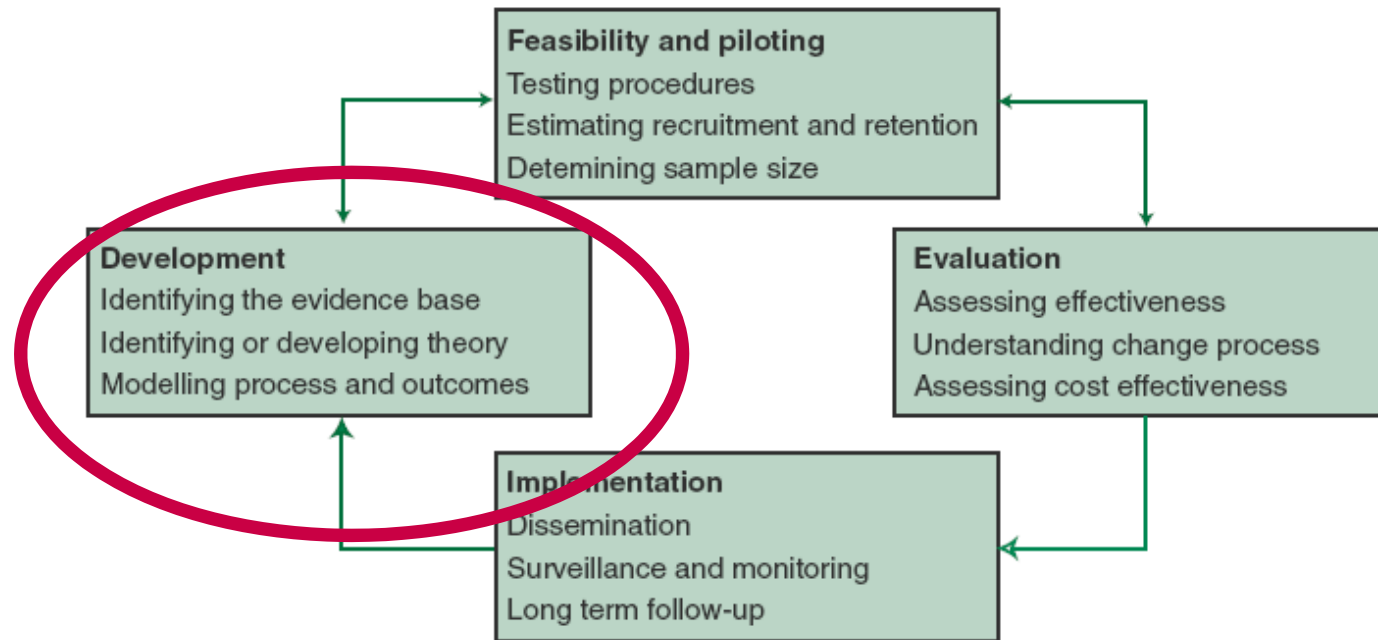a) behaviour change techniques,

b) modes of delivery,

c) theoretical assumptions and

d) procedural and clinical features based on evidence, theory and/or other explicit rationales"

Sniehotta, 2009

▪**How to develop a new digital parenting intervention to reduce alcohol misuse in young people?**

INTERVENTION DEVELOPMENT

Medical Research Council (MRC) Guidelines for the development and evaluation of complex interventions (Craig et al., 2008)

Source: Bartholomew *et al.* (2001)
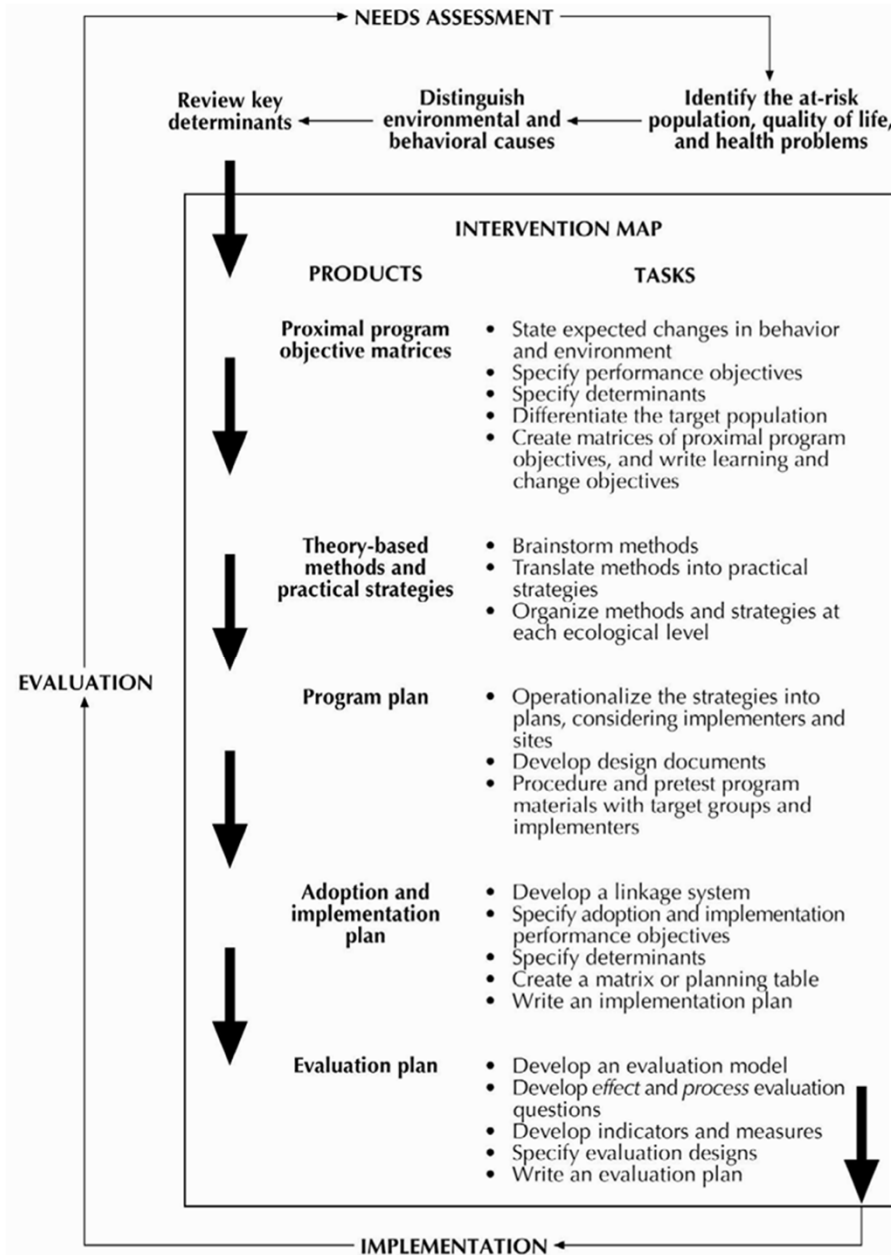
INTERVENTION MAPPING

(Bartholomew, Parcel, & Kok, 1998)

KEY CONSIDERATIONS IN DESIGNING A BEHAVIOUR CHANGE INTERVENTION

1. Target behaviour & group

2. Theoretical basis

3. Effective Behaviour Change Techniques (BCTs)

4. Mode of Delivery

5. Intervention materials

6. Evaluation method

1. TARGET BEHAVIOUR

What <u>exactly</u> is the target behaviour that you want people to change?

2. USING THEORY

- **Do we need theories?**

- **NO!** Oxman, Fretheim & Flottorp (2005); Jeffrey (2004)

- "Models of health behaviour fail to address the complexity of health related behaviour" (Crossley, 2001)

- **YES!** Rothman (2004)

  - **Associated with larger effect sizes (Albaraccin et al. 2005; Webb et al. 2010)**

3. BEHAVIOUR CHANGE TECHNIQUES (BCTS)

- **BCTs** have been defined as the **'building blocks'** or the 'active ingredients' of an intervention in the same way that a particular compound might comprise a pharmaceutical intervention *(Michie & Johnston, 2012).*

- Conceptually distinct component BCTs, described using **consistent terminology** and **standard definitions**

- Developed into behaviour-specific taxonomies (smoking, physical activity & nutrition, alcohol, etc)

- Can be used to: 1) reliably identify and define BCTs in behaviour change interventions, and 2) provide a means of improving **reporting** and aiding **replication** attempts by specifying intervention content (i.e., active component BCTs) *(Abraham & Michie, 2008; Michie et al 2013)*

4. MODE OF DELIVERY

- **We identified that a digital intervention (online using the internet or a smart phone) might be a good way to engage parents**

- Is a website better than a smart phone application?

- Where is intervention delivered? (emailed straight to home/school session first)

- When is it delivered? Is there a specific time of year or age range?

- How often and for how long?

- To whom is it delivered? Are some parts just for the parent or both for parent and child?)

5. MATERIALS

- Website design

- Smart phone make/model

- Questionnaires

- Videos

- Group tasks

- Information

- Games

- What else?

6. EVALUATION

- How will you know if the intervention has worked?

- What are the most important outcome measures?

- How many outcome measures will you need to measure?

- Will you rely on self report or can the outcomes be measured objectively?

- How long after the intervention will you follow people up?

- What is the best way to evaluate a digital igiintervention?

Always consider evaluation at the outset

EXAMPLE PROJECT

Development of an online intervention to reduce alcohol misuse aimed at 11-15 year olds

Specific theoretical basis (**Prototype Willingness Model PWM**)

Images of drinkers and drinking are influential for young people's willingness to consume alcohol

Theory driven project to explore application of the model to young people and alcohol consumption in the UK

Mixed methods project structured in seven distinct steps

Identifying theory to acceptability testing of a planned intervention

DEVELOPMENT PROCESS EXAMPLE

Developing an intervention to reduce alcohol misuse in young people based on the social reaction pathway in the PWM
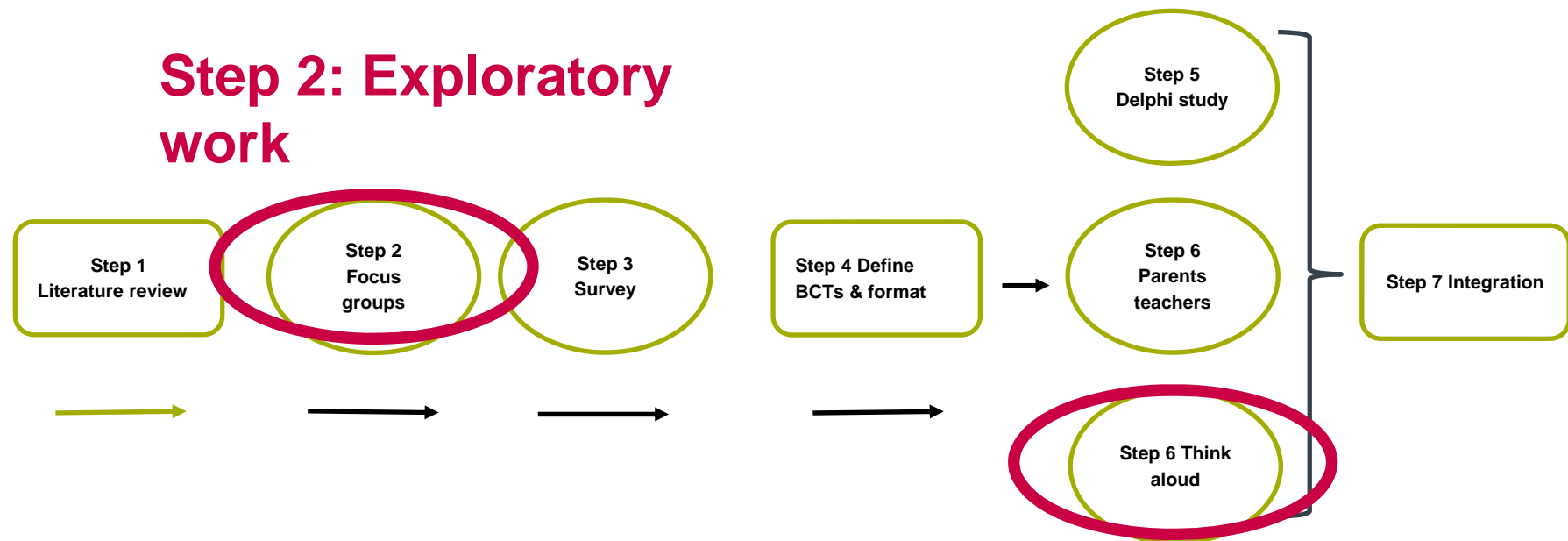
QUALITATIVE EXPLORATORY WORK

- Exploring factors that influence the target behaviour in the specific population

- Using the language and terminology that your intended participants use

- What are the barriers to behaviour change?

- Identify appropriate theoretical basis or determine whether selected theoretical constructs are relevant

- Focus groups, interviews, task groups, observation…

EXAMPLE PROJECT: FOCUS GROUPS

Four groups with 27 adolescents

Schedule:

1. What do you think of the Chief Medical Officer's advice that under 15s should completely avoid alcohol?

2. Describe the typical person your age who drinks or does not drink?

3. What kinds of situations / places / events would young people your age be offered / have access to alcohol?

GROUP ACTIVITY

We want to design a new digital parenting intervention to reduce alcohol misuse in young people

Your task:

Plan a qualitative study to **explore** factors relating to the target behaviours that you want to change

Thinking about either **parents** or **young people**:

What would be an appropriate study to use (interviews, focus groups, observations?)

What are you aiming to find out?

What kind of questions, activities or materials will you use?

What might be the specific behaviour (s) that are identified?

FOCUS GROUP RESULTS

OXFORD
BROOKES
UNIVERSITY

11-13 years old

Well it depends… cos you don't want to look bad in front of your friends (Harry)

Um, I don't know, I think I would probably be pressured into it and I'd probably end up doing it (Carly)

I think that sometimes it has a negative effect, if you say like oh you can't do something.... you're absolutely not allowed alcohol at all until your 15, then it makes like people want to have it more (Poppy)

16-17 years old

If you are at a house party then everyone's intentions are to get mashed (Anna)

You can take your mind off like having to think about the future and you know you've got loads of work to do and you can just forget about it (Kieran)

You learn your limits like when you're younger and then when you get a bit older you can drink responsibly (Katie)

SELECTING BCTS

- What specific behaviour needs to change?

- Identify factors that influence the target behaviour

- Identify appropriate theoretical basis

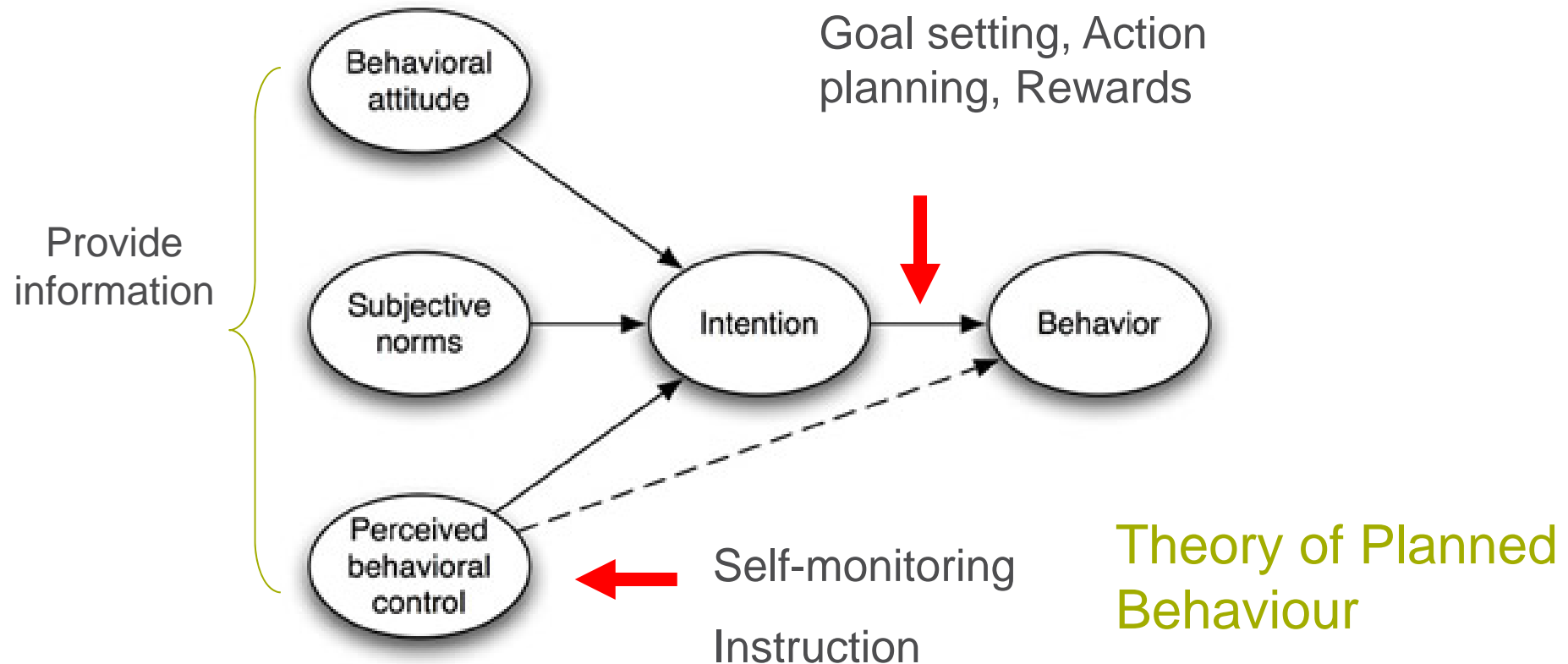- What behaviour change techniques (**BCTs**) will change this behaviour

For example…..

- Perhaps we identify that parents have **information** needs with regards to their child and alcohol?

SELECTING BCTS

Select techniques which relate to the theoretical determinants of behaviour

Motivation?

Provide information

Goal setting, Action planning, Rewards

Self-monitoring

Instruction

Theory of Planned Behaviour

PROVIDING INFORMATION & INSTRUCTION

Provide information about behaviour / health link:

General information about behavioural risk, for example, susceptibility to poor health outcomes or mortality risk in relation to the behavior

Provide information on consequences:

Information about the benefits and costs of action or inaction, focusing on what will happen if the person does or does not perform the behaviour

Provide instruction

Telling the person how to perform a behaviour and/or preparatory behaviours   (Abraham & Michie, 2008)

DESIGNING THE INTERVENTION

- Applying the selected BCTs to an appropriate format and mode of delivery

- Perhaps parents have information needs but also lack confidence? Select BCTs to target all identified behaviours

- Did you identify any preferred technology? Websites or smart phones?

- Games, tasks, prompts, texts, tailoring

- Consider interaction between parents and children

QUALITATIVE ACCEPTABILITY TESTING

- What do the target participants think about your planned intervention?

- Do they find it easy to use and to understand?

- Is the information believable?

- Do they like the format or would they prefer something else?

- Would they actually use it?

- What time of day would they use it?

- Could we incorporate some text message prompts?

EXAMPLE PROJECT: THINK ALOUD INTERVIEWS

BCTs reflecting the PWM were incorporated into an online quiz

- Sixteen think aloud interviews lasting between 30 and 50 minutes were conducted with eight boys and eight girls. Participants worked through each intervention component whilst talking aloud and they then answered some further questions.

- Transcripts were analysed in two steps; focusing firstly on the components, using categories derived from existing think aloud studies(van Oort, Schroder, & French, 2011), and secondly undertaking a thematic analysis (Braun & Clarke, 2006) to identify overall views about the intervention.

GROUP ACTIVITY

- Using the findings of the first study, imagine we have now designed a new digital parenting intervention to reduce alcohol misuse in young people

- Plan a qualitative study to find out about the **acceptability** of the planned intervention

- Thinking about either **parents** or **young people**:

What would be an appropriate study to use (interviews, focus groups, observations?)

How would you assess whether or not the intervention is acceptable?

How will you use the findings of this study to improve your intervention?

THINK ALOUD STUDY RESULTS

Unexpected intervention content

They [alcohol education at school] said why it was bad for you and how it would affect your body and stuff like that but it didn't really make you think about it, it was sort of telling you instead of like showing you how you should think for yourself……Oh no, it's bad, it's bad, we know that (Amelia)

If you showed some like images of not very nice things that could happen to your body if you drank large amounts of alcohol and that it could cause death eventually (Alice)

Perceptions about drinkers and drinking

I think probably because it's actually not allowed to people like older than about 18 so it's kind of like, to be honest if someone's banned something then it makes it all the more cool if you do it (Jon)

If everyone else was doing it then you wouldn't want to be the odd one out (Alice)

It's not fitting in in society it is trying to be something that you are not, it's like, I don't know it's just trying to break free from the system at the moment like (Sam)

INTEGRATING THE FINDINGS

- In a mixed methods project **integration** is key

- What priority should qualitative and quantitative findings be given?

- Which of our study populations should take priority – parents or young people?

- Address intervention led questions rather than all of the data – using **deductive** qualitative analysis

- Focus specifically on enhancing acceptability

- Take care to remain true to theoretical basis and targeting the specific behaviours you want to change

BENEFITS OF THIS APPROACH

- Early exploratory steps essential in applying theory to a new population or target behaviour

- Incorporate the views of various stakeholder groups and potentially improve fidelity

- Address acceptability issues prior to an expensive trial

- Potential of uncovering new information about a topic

- Shows a systematic and transparent process – how often do we know exactly why and how BCTs are selected

LIMITATIONS

- Perhaps step two should comprise a larger scale qualitative component

- Challenges in mastering different methods of data collection

- Time taken to undertake detailed development steps

- Pressure to roll out interventions to address important problems might mean development work is not as valued as trial results

- How to address conflicting findings?

WHAT WILL YOU DO IF THE FINDINGS OF THE DIFFERENT STUDIES CONFLICT?

Parents' views about alcohol education

- This is not enough being done enough in schools and colleges (Mother B)

- Long term health issues will mean nothing to a teenager and will be outweighed by the seen positive effects of fun and social standing (Father J)

- It is important to be honest about how much fun is had drinking alcohol, otherwise they try it, have a good time, and think you were scaremongering (Mother H)

- Certainly don't mention 'positive' effects as it promotes drinking as a way of changing mood (Mother C)

SUMMARY OF WORKSHOP

Introduction to the workshop topic of parents and young people's **alcohol** consumption

Intervention development **frameworks** and an overview of a project focussed specifically on **development**

Considered how we might develop a **new digital** parenting intervention to reduce alcohol misuse in young people

Thought about the benefits of incorporating qualitative methods to **explore** target behaviour

Selecting and applying **BCTs**

Using qualitative methods in **acceptability** testing

Considered how to **integrate** the findings

FEEDBACK AND COMMENTS

- Slides from this presentation will be available online after the conference

- Your feedback and comments are welcome at

http://alcoholresearch.wordpress.com/2013/11/10/developing-interventions/

Merci pour votre attention / Thank you for listening

@I_am_emma

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