



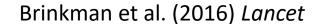
# Yorkshire and Humber Behavioural Science Conference

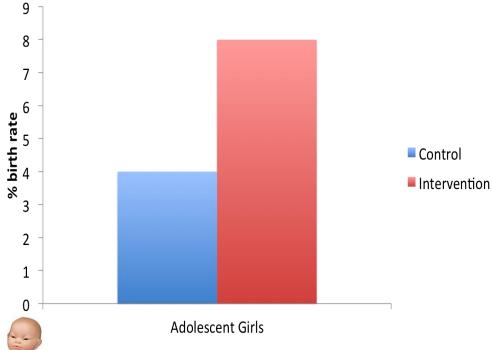
Professor Madelynne Arden

@maddyarden

### Simulated parenting

- Aim: to reduce teenage pregnancy rates
- 'Baby' requires feeding, burping, rocking and nappy changing.
- Records % of proper care e.g. cry time
- Combined with educational sessions

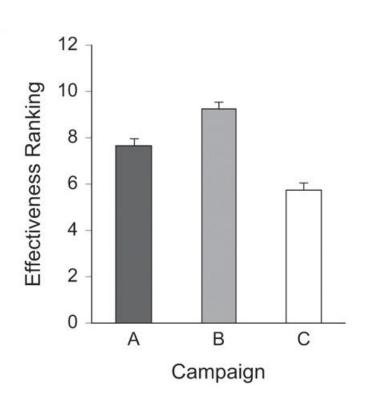


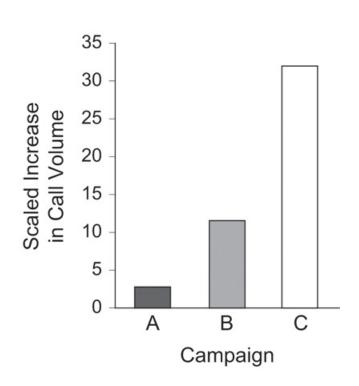


## Quit smoking



# Perceived effectiveness ≠ Effectiveness





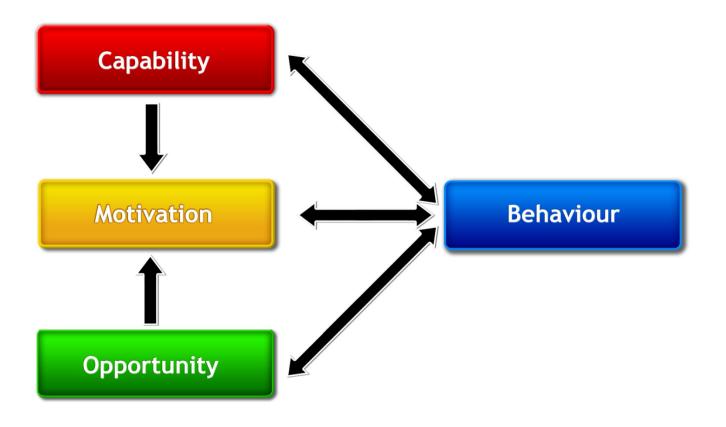
#### It's not all 'common sense'!

- What people liked and thought would be effective was not related to actual effectiveness
- Interventions based entirely on 'what people want' are unlikely to be effective.
- If you do not have a clear understanding of the effect of your intervention you might produce unintended consequences.

#### **Biases**

- Common sense approaches are subject to biases:
  - Third person effect
    - belief that messages have a greater effect on others than on themselves.
  - Availability heuristic
    - overestimating the likelihood of events with greater "availability" in memory
  - Actor-observer bias
    - overemphasizing the influence of the personality on the behaviour of others and underemphasize the influence of their situation BUT doing the opposite for ourselves.

#### COM-B: a generic model of behaviour



Michie et al. (2011)

### Capability

- Physical capability
  - Physical skill, strength or stamina
    - Being able to swim
    - Having the skills to be able to complete an online form



- Psychological capability
  - Knowledge or psychological skills, strength or stamina to engage in the necessary psychological processes
    - Understanding how to interpret nutritional labels regarding fat content
    - Being able to remember to set up a direct debit
    - Knowing and understanding the 5-a-day message

### Opportunity

- Physical opportunity
  - Opportunity afforded by the environment: time, resources, locations cues, physical affordance
    - Having sufficient money to buy fresh fruit and vegetables
    - Having a computer and internet connection to be able to complete an online form
    - Having lots of takeaway food establishments near your house
- Social opportunity
  - Opportunity afforded by interpersonal influences, social cues and cultural norms that influence how we think about things
    - Having friends who have all taken up free nursery places for their children
    - Being a member of a family who don't do any physical activity
    - Having parents who have vegetables and fruit with every meal

#### Motivation

- Reflective motivation
  - Reflective processes involving plans (intentions) and evaluations (beliefs about what is good or bad)
    - · Wanting to recycle as much of your waste as possible
    - Believing that eating 5 portions of fruit and veg a day is good
    - Believing that there are risks to paying rent by direct debit
- Automatic motivation
  - Automatic processes involving emotional reactions, desires, impulses, inhibitions, drive states and reflex responses
    - Putting your seat belt on when you get in the car by habit
    - Choosing a tasty looking doughnut (instead of an apple)
    - Choosing the option that takes the least time

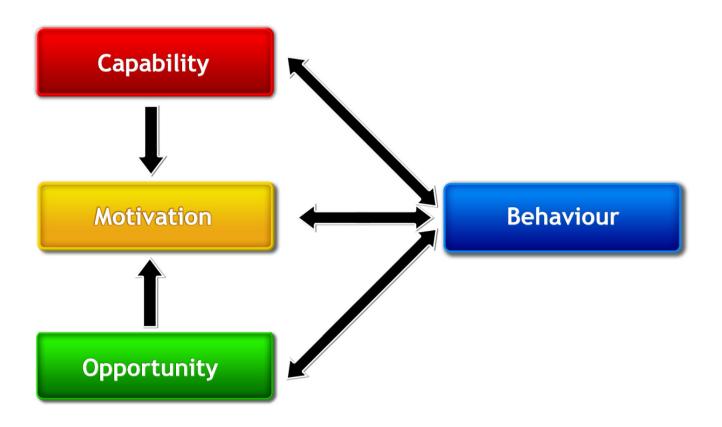


#### Step 1: What behaviour?

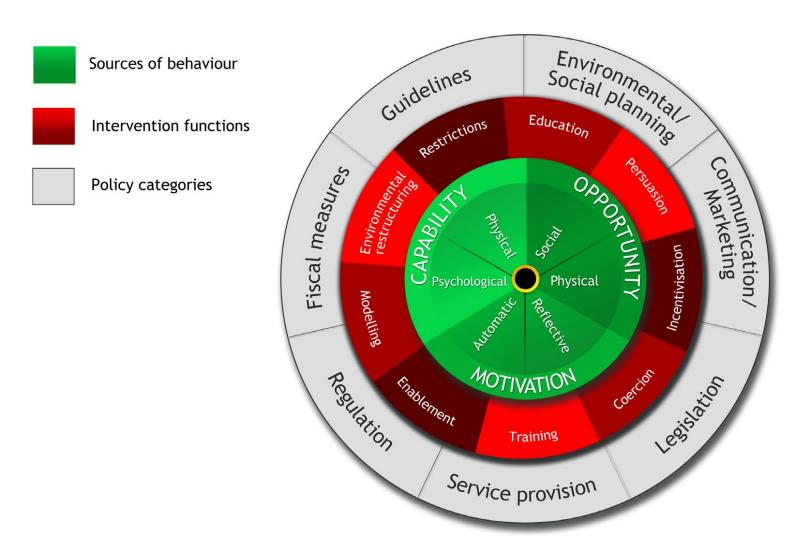
- What is the problem?
- What behaviours are involved?
  - Who does the behaviour?
  - When?
  - How often?



### Step 2: What needs to change?

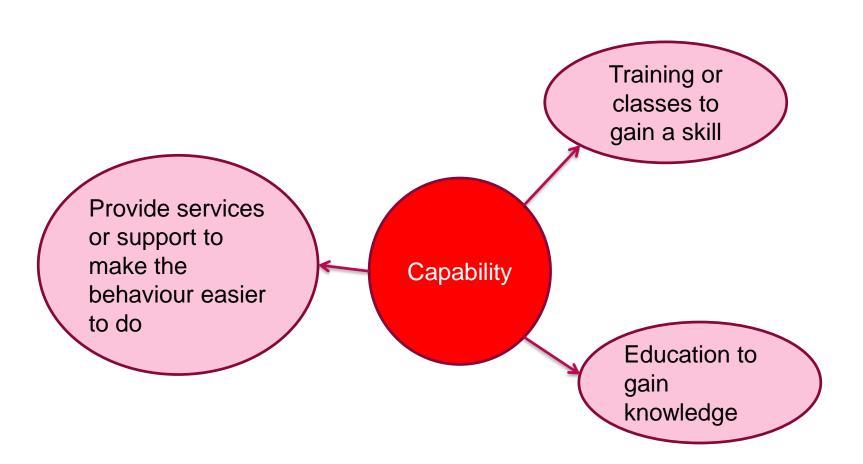


#### Behaviour change wheel

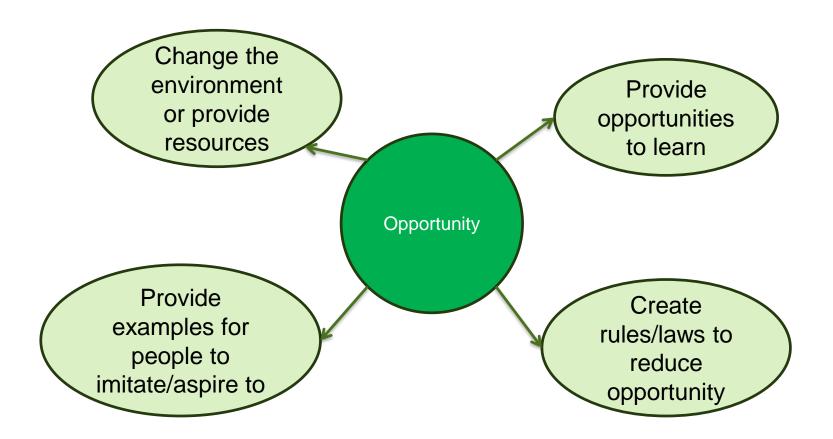


The Behaviour change wheel: A new method for characterising and designing behaviour change interventions Michie et al 2011 http://www.implementationscience.com/content/6/1/42/

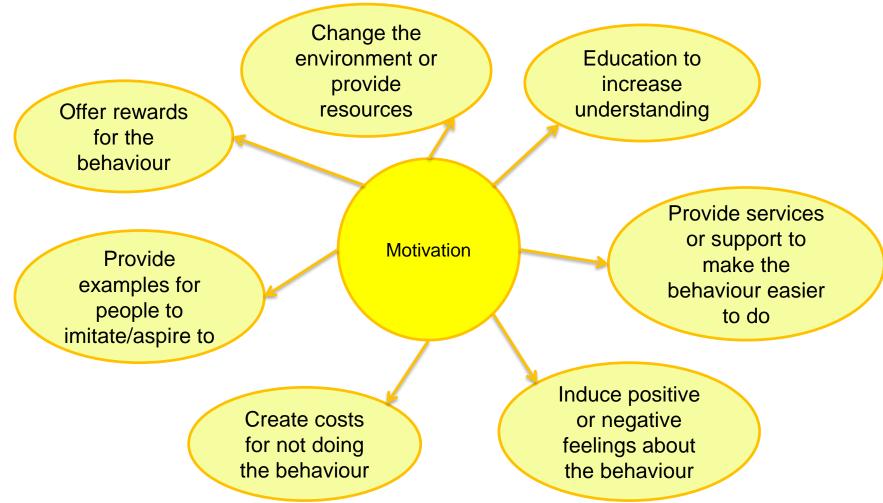
# Step 3: How might you promote capability change?



# Step 3: How might you promote opportunity change?



# Step 3: How might you promote motivational change?



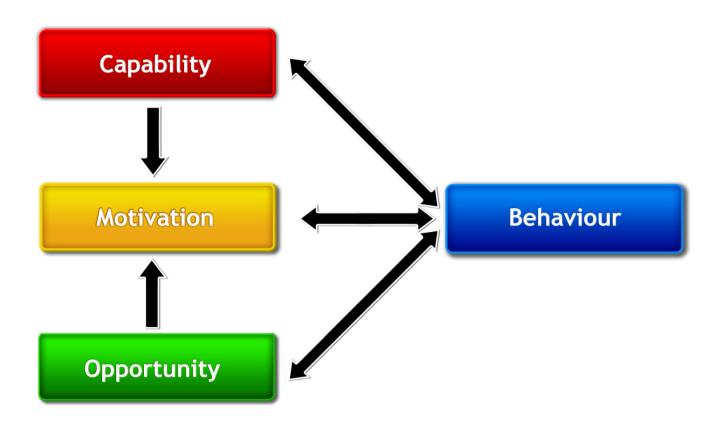
### Step 4: Did it work?

- What outcome could you measure?
  - objective measures
    - e.g. number of people who completed a tax return on time
    - OR total rent arrears
  - subjective measures
    - e.g. number of people who said that they drove within the speed limit
    - OR reported condom use

#### "Eat them to defeat them"

https://youtu.be/5U\_iN6r40YA

# Will you use behavioural science in your work?



#### Support





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