Understanding barriers and facilitators to healthy pregnancies among women living in poverty using visual methods and the Behaviour Change Wheel

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Acknowledgements

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Overview

• Background and methods
• Why do we need an analysis of barrier and facilitators?
• The Behaviour Change Wheel
  – The COM-B model
• Data analysis
• Emerging findings
• Conclusions
Context to my analysis

• Existing interventions often have low uptake and high dropout (e.g., NHS stop smoking services for pregnant women)
• Existing interventions may not affect behavior (Building Blocks - Robling et al., 2016. Lancet)
• MRC Framework for developing and evaluating complex public health interventions (Craig, 2008, BMJ)
  – By understanding the theoretical basis of behaviours, we can design interventions which may change them
• The Behaviour Change Wheel (Michie et al., 2011; 2014) provides one way of understanding the socio-ecological context of health behaviour
The Behaviour Change Wheel

- Sources of behaviour
- Intervention functions
- Policy categories

Michie et al. (2011). Imp Sci
## The COM-B model

<table>
<thead>
<tr>
<th>COM-B domain</th>
<th>COM-B sub-domain</th>
<th>Example</th>
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</thead>
<tbody>
<tr>
<td>Capability – an individual’s ability to engage in a specified activity</td>
<td>Physical</td>
<td>Skills, strength or stamina</td>
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<td></td>
<td>Psychological</td>
<td>Knowledge or psychological skills</td>
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<tr>
<td>Opportunity - environmental factors which allow or facilitate a behaviour</td>
<td>Social</td>
<td>Interpersonal influences, social cues and cultural norms</td>
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<tr>
<td></td>
<td>Physical</td>
<td>Environment: time, resources, location</td>
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<tr>
<td>Motivation - beyond conscious decision making to include any way in which behaviour is directed psychologically</td>
<td>Reflective</td>
<td>Consider, evaluate (good/bad) and plan intentions</td>
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<tr>
<td></td>
<td>Automatic</td>
<td>Driven by emotional reactions, desires, impulse or addiction</td>
</tr>
</tbody>
</table>

Data analysis

- Coded in Nvivo 11 (by Melanie)
- Identifying target behaviours (Michie et al., 2014)
  - Smoke free pregnancies
  - Abstinence from alcohol during pregnancy
  - Healthy diet in pregnancy
  - Infant feeding intention
- I mapped these to the BCW
- Today focus on smoking and alcohol
  - Barriers and facilitators
Smoking: Behaviour

• 4 abstinent (Donna, Fiona, Gaby, Imogen)
• 2 participants smoked (Cat and Jess)
• 1 used an e-cigarette (Becky)
• 1 had previously smoked in two previous pregnancies (Anna)
• 1 lived in a smokey home, but did not disclose smoking status (Ellie)
• 1 had quit prior to pregnancy (Hayley)
The smell of smoking “makes me gag” (Donna)

- Stress (Cat and Anna)
- Belief alcohol worse than smoking (Jess)

Belief PH advice was accurate (Becky)

Addiction: “I’ve got to have one” (Cat)

Partners judgemental: “Well that’s my baby in there.” (Anna, Cat, Jess)

Judgement from friends, family and strangers “it was in my own house, I never walked around out and about with one, it’s not the best look.” (Anna)

Smoking as a home-based activity (Cat, Anna)

Strong views from childhood – smoking is bad (Donna, Gaby)
Alcohol: Behaviour

• **Research context:**
  – 9 of the women already had children
  – guidance to completely abstain from alcohol introduced Jan 2016
• 5 women were abstinent (Donna, Fiona, Gaby, Imogen, Jess)
• 2 regularly drank a few drinks (Anna, Cat)
• 1 drank on her previous pregnancy but was abstinent now (Hayley)
• 1 would consider having a drink on special occasions (Becky)
• 1 not discussed (Ellie)
Rarely drank or engaged in NTE anyway (Donna, Gaby, Imogen)

Feel excluded from social life because can’t drink (Anna, Becky, Donna, Hayley, Jess)

Concern about baby: “you feel like whoa and I don’t want to put a poor innocent baby through that really.” (Fiona)

Partner encourages alcohol consumption (Anna, Cat, Donna, Hayley)

Belief that 1 or 2 drinks would be safe (Cat) “Alcoholics manage to have babies” (Anna) “rules change all of the time” (Hayley)

Tiredness and sickness reduced appeal (Cat, Hayley)

“It’s not the same” (Cat)

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“Alcoholics manage to have babies” (Anna)

“rules change all of the time” (Hayley)

“I’m dying to have a glass of wine” (Fiona)
Conclusions

• More women abstained from alcohol than remained smokefree in their pregnancies
• The drivers of smoking and alcohol were different, notably highlighting addiction (automatic motivation)
• The social environment influenced both smoking and alcohol consumption
  – Women’s behavior in relation to alcohol and smoking was judged – both at home and in public
• It was not always easy to understand what was a barrier and what was a facilitator: this appeared related to how it was perceived by the individual – shame and guilt may affect behavior

• We have applied for funding to follow up the ladies following birth – outcome March 2017
Thank you

• Any Questions?