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

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Health and Wellbeing in Pregnancy and Early Motherhood
Cardiff Story Museum
17th January 2017

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Acknowledgements

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Research team: Dr Melanie Morgan, Mrs Dunla Gallagher

Additional support with BCW analysis: Dr Stephanie Smits, Dr Kate Brain

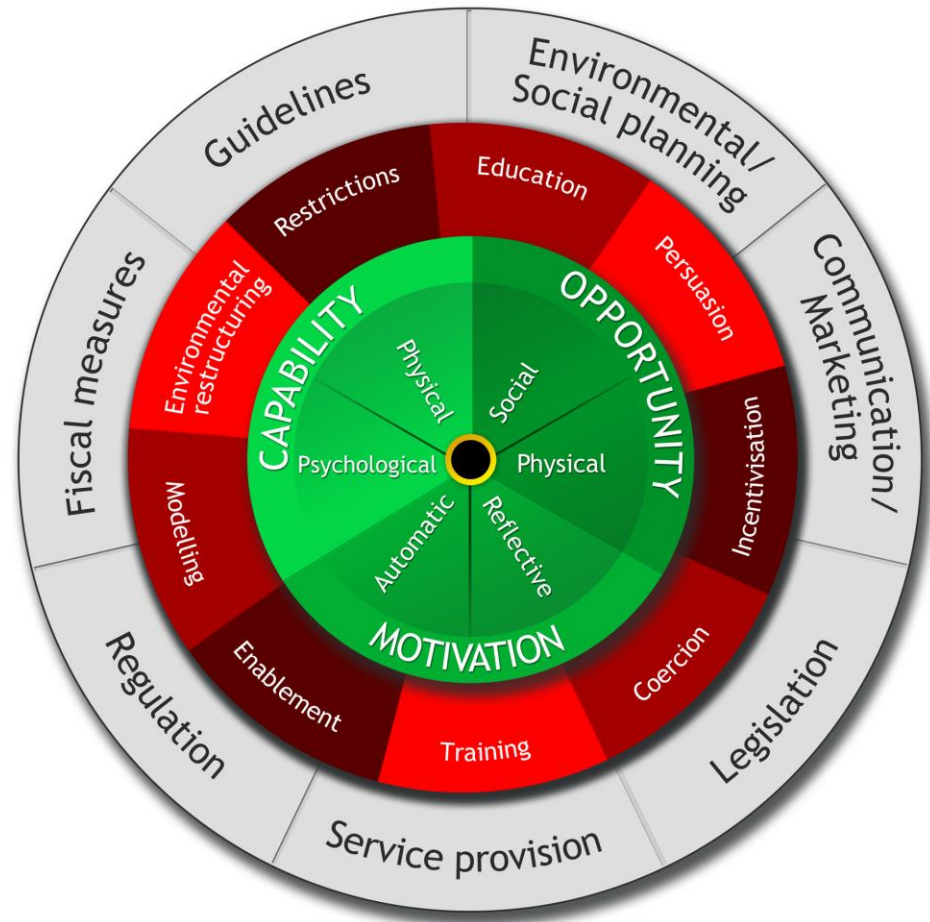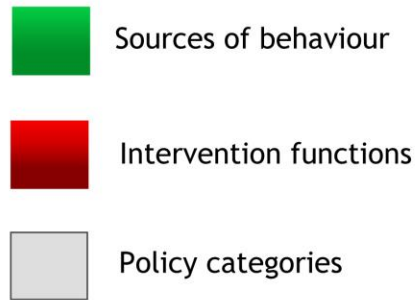College of Biomedical and Life Sciences

Overview

- Background and methods
- Context to my 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 high drop out (eg: 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

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The Behaviour Change Wheel

Michie et al. (2011). *Imp Sci*

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The COM-B model

COM-B domain	COM-B sub-domain	Example
Capability – an individual's ability to engage in a specified activity	Physical	Skills; Ability to do a task
	Psychological	Knowledge
Opportunity - environmental factors which allow or facilitate a behaviour	Social	How 'normal' that behaviour is in that environment
	Physical	Access to necessary goods to facilitate behaviour
Motivation - beyond conscious decision making to include any way in which behaviour is directed psychologically	Reflective	Consider it is morally appropriate to do
	Automatic	Driven by impulse or addiction

Michie et al., (2014) The Behaviour Change Wheel. London: Silverback

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The COM-B model
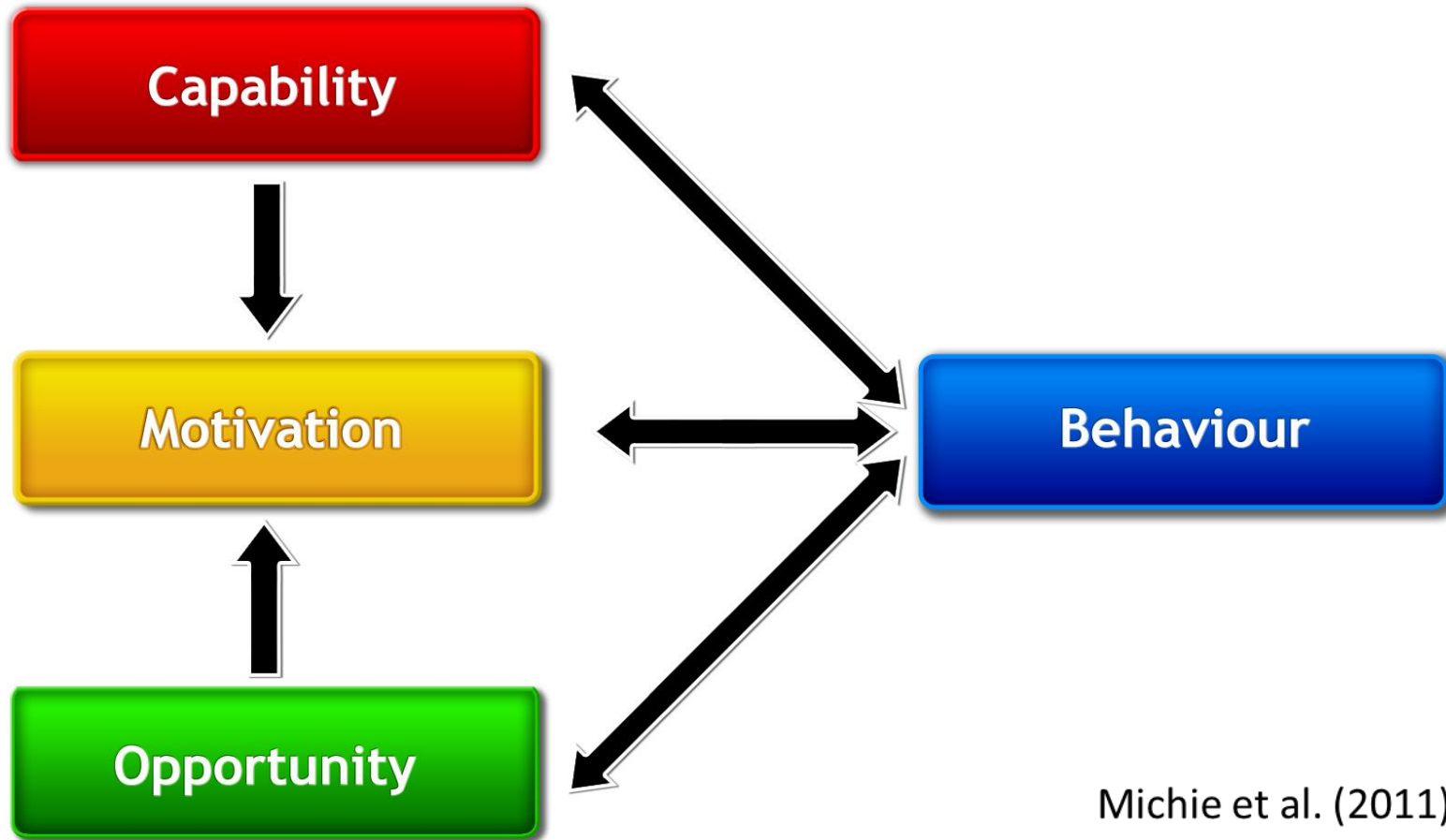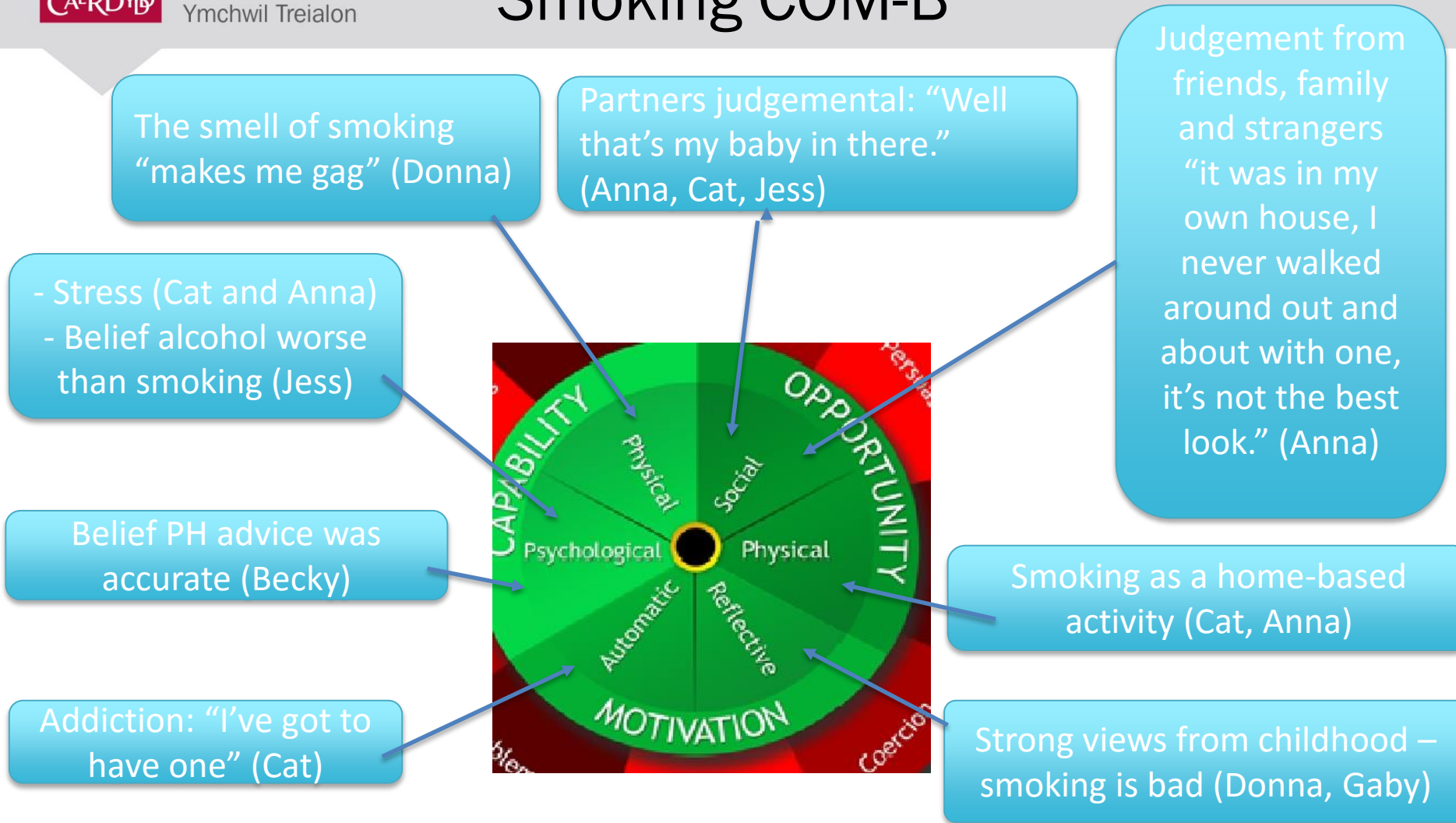

Michie et al. (2011). *Imp Sci*

Data analysis

- Rich seam of data

- Coded in Nvivo 11 (by Melanie)

- Identifying target behaviours (Michie et al., 2014)
  - Smokefree pregnancies
  - Abstinence from alcohol during pregnancy
  - Healthy diet in pregnancy

- I Considered all content relating to each of the behaviours against domains of the COM-B model
  - Barriers and facilitators
  - Healthy diet was not suitably well defined

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)

Smoking COM-B

The smell of smoking "makes me gag" (Donna)

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)

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

Belief PH advice was accurate (Becky)

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

Addiction: "I've got to have one" (Cat)

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)

Alcohol COM-B

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

Tiredness and sickness reduced appeal (Cat, Hayley)

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

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

Rarely drank or engaged in NTE anyway (Donna, Gaby, Imogen)

: "I'm dying to have a glass of wine" (Fiona)

"It's not the same" (Cat)

Concern about baby: "you feel like whoa and I don't want to put a poor innocent baby through that really." (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?

wellcome

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Coleg y Gwyddorau Biofeddygol a Bywyd

Ymchwil Iechyd a Gofal Cymru
Health and Care Research Wales

Ariennir gan Lywodraeth Cymru
Funded by Welsh Government

CANCER RESEARCH UK

Athena SWAN Bronze Award

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