



# Experiences of lifestyle management and support during pregnancy: a qualitative study of the attitudes and experiences of pregnant women and healthcare professionals

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## INTRODUCTION

- Overweight and obesity during pregnancy is associated with an increased risk of gestational diabetes mellitus (GDM), preeclampsia and macrosomia (1).
- Antenatal lifestyle interventions have been shown to be effective in reducing these risks, however, studies often fail to identify the mechanisms by which the intervention is expected to be effective.

### Aim:

- To identify the barriers and enablers to behaviour change from the perspective of overweight and obese pregnant women and their healthcare providers (HCP) and to elicit participants' attitudes toward the use of technology to support behaviour change during pregnancy.
- To identify the intervention functions for a technology supported lifestyle intervention to improve physical activity levels during pregnancy using the TDF and the COM-B model.

## METHODS

- Using a purposive sampling approach, overweight and obese women at different stages of pregnancy were recruited from a public antenatal clinics at Cork University Maternity Hospital (CUMH) (n=30).
- A sample of health care professionals (HCP) will also be recruited (n=10-15).

## ANALYSIS PLAN

- Data will be analysed by applying the TDF and the COM-B model in a recursive process following the customary steps of thematic analysis (2) using NVivo V.10 software.
- The TDF was developed combining psychological and organisational theories to help understand behaviour change.
- The TDF domains can be condensed into the three components of the COM-B model: capability, opportunity and motivation (Figure 1).

Figure 1: Map of Theoretical Domains Framework (TDF) to Sources of Behaviour on COM-B System (3)



## PRELIMINARY RESULTS

### Overweight and obese pregnant women:

- Of the 30 overweight or obese pregnant women recruited, 22 were interviewed. Women varied widely: BMI range (25.6 – 41.7), age range (22- 39years).
- There were two domains of the TDF that we did not match to any data at this point – Optimism and Professional/social role and identity (Table 1).

Table 1: Mapping of codes to themes from Theoretical Domains Framework (TDF) and COM-B system

Barriers and Enablers to behaviour change	TDF	COM-B
B: Pain (pubic pain) E: Fit before pregnancy	Physical Skills	Physical Capability
B: Lack of information Existing handbook – boring 1 <sup>st</sup> Vs. Subsequent pregnancies Woman's Attitudes E: Awareness of weight issues Innovative ways to provide knowledge	Knowledge	Psychological Capability
E: Interacting with Health care professionals	Cognitive and interpersonal skills	
B: Being mentally tired (drained) E: Technology to help memory (reminders) "pregnancy/ baby brain" Decisions about other health behaviours	Memory, attention and decision process	
B: Trying to break habits E: Technology for tracking, recording and self-monitoring Managing and altering your actions	Behavioural regulation	
B: Lack of time Long working hours Spending time with Children E: Resources (handbook, technology)	Environmental context and resources	Physical Opportunity
B: Childs demands come first Partner's behaviour E: Support from family and friends Support from other pregnant women Involving other family member (children) Partner's behaviour	Social influences	Social Opportunity
B: Lack of concern Lack of motivation Pregnancy as an excuse 1 <sup>st</sup> Vs. Subsequent pregnancies E: Doing best for baby and yourself Responsibility 1 <sup>st</sup> pregnancy Vs. Subsequent pregnancies	Beliefs about capability	Reflective Motivation
E: Awareness of weight issues Fear of gestational diabetes	Beliefs about consequences	
B: Pregnancy Aspirations "Magic Plans" E: Pregnancy Aspirations "Magic Plans"	Intentions	
E: Target setting (pedometer 10,000steps)	Goals	
E: Technology – warning alerts or reminders Incentives (pets, special occasions)	Reinforcement	Automatic Motivation
B: Mood Illness E: 1 <sup>st</sup> Vs. Subsequent pregnancies Scare Tactics	Emotion	

### Health care professionals:

- From the pilot interviews HCPs suggest that pregnancy is 'a wake-up call' for some women as the risks are made explicit.
- Social influences were identified as a potential facilitator; behaviour change was easier for pregnant women when supported by their partners or when partners also engaged in healthy lifestyle behaviours.
- Environmental context and resources within the health system were identified as barriers, particularly the lack of dedicated obesity clinics and access to dietetic services.

## DISCUSSION

- Healthcare professionals believe pregnancy offers a window of opportunity to engage with women.
- Beliefs about consequences of overweight and obesity for the baby may trigger behaviour change in pregnant woman.

## NEXT STEP

- Continue with data analysis
- Recruitment and data collection with health care professionals.

## REFERENCES

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