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Enablers and barriers to physical activity in overweight and obese pregnant women: an analysis informed by the Theoretical Domains Framework and COM-B model

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Introduction

Background

• Increasing trends in maternal obesity

• Benefits associated with physical activity during pregnancy [1-3]

• Numerous complex interventions

• Using theory to identify the determinants of behaviour

Aim

The aim of this study was to use the Theoretical Domains Framework and corresponding COM-B model to identify enablers and barriers to physical activity in overweight and obese pregnant women.
Methods

Study design, recruitment and data analysis

- Qualitative semi-structured interviews
- Pregnant women (BMI>25 or $\geq 25\text{kg/m}^2$) from Cork University Maternity Hospital (CUMH), Ireland
- Interviews were recorded and transcribed
- Themes mapped to the Theoretical Domains Framework and COM-B model

The Theoretical Domains Framework (TDF)

The COM-B model of behaviour change
## Results

<table>
<thead>
<tr>
<th>COM-B</th>
<th><strong>Barriers</strong></th>
<th><strong>Enablers</strong></th>
<th><strong>Quote</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Capability</strong></td>
<td>Medical conditions and pregnancy symptoms (pain/energy/tiredness)</td>
<td>Fitness level prior to pregnancy</td>
<td><em>The problems I had just stopped me [PA]. Like I got a...</em></td>
</tr>
<tr>
<td></td>
<td>Limited knowledge</td>
<td>Self-monitoring, use of pedometer/step count/phone apps</td>
<td><em>If there was definitely some sort of measurement like a pedometer or something like that, just something that would flag where you are at and what your targets should be</em> (PW21)</td>
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<tr>
<td></td>
<td>Concerns around having that ‘conversation’</td>
<td></td>
<td><em>suppose nobody really sits you down to go through the implications of that or the benefits and stuff like that</em> (PW21)</td>
</tr>
<tr>
<td><strong>Opportunity</strong></td>
<td>Pregnant woman’s situation (family life/children/work)</td>
<td>Support from family members, partner and friends</td>
<td><em>...it would be that extra motivation [PA classes]. Get out and make friends and talk more, and enjoy the activity more</em> (PW04)</td>
</tr>
<tr>
<td></td>
<td>Financial situation</td>
<td>Interaction with other pregnant women (PA classes)</td>
<td><em>...like sure I’m pregnant. I’m going to be big anyway</em> (PW09)</td>
</tr>
<tr>
<td><strong>Motivation</strong></td>
<td>Using pregnancy as an ‘excuse’</td>
<td>Feeling responsible</td>
<td><em>I just stopped and sat and eat...it’s hard to break that habit especially when you are pregnant as you do use it as an excuse</em> (PW02)</td>
</tr>
<tr>
<td></td>
<td>Breaking habits and mind-set</td>
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<td></td>
<td>Fear based on previous pregnancy outcome/miscarriage</td>
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</tbody>
</table>
Discussion

• A wide range of barriers and enablers were identified

• Health care professionals are key to enhancing pregnant women’s knowledge

• Need to take a holistic approach to care

• Using the TDF and COM-B model is a theoretical starting point for understanding behaviour within specific contexts and to make a ‘behavioural diagnosis’

Next step:
Use the behaviour change wheel [4] to systematically develop a lifestyle intervention to increase physical activity levels for overweight and obese pregnant women

Behaviour change wheel – framework for behaviour change to guide the design of an intervention. [Michie et al. 2011]
Thank you

Any Questions?

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References


