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The design of a group diabetes prevention program focused on gestational diabetes mellitus (GDM)

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Background
- Gestational diabetes mellitus (GDM) is characterised by glucose intolerance of variable severity that begins or is first diagnosed during pregnancy. (Hoffman 1998)
- Seven-fold ↑ risk of T2DM compared with women who have had a normoglycaemic pregnancy (Bellamy 2009)
- GDM prevalence is increasing
  - ↑ risk mother and baby

A Framework for development and evaluation of RCT’s for complex interventions to improve health

Evidence for lifestyle modification for prevention of T2DM
- Lifestyle modification can reduce risk of T2DM in high-risk individuals by 58%
- Benefits of lifestyle modification program sustained
- GGT DPP – Australian intervention study in primary care
- Victorian Life! Taking Action on Diabetes Program 2007-2011
- Evaluation RCT (Commence July 2009)
- Sub-study of women with GDM in the US DPP – Incidence of T2DM 71% higher in women with a history of GDM; lifestyle intervention or therapy with metformin reduced this risk by 50%
- The current study will contribute to evidence on the feasibility of a targeted program to prevent women with history of GDM from developing T2DM

Aim
- To interview women with GDM to determine their interest in joining a group diabetes prevention program (DPP) post-partum

Method
- Convenience sample, women with GDM, identified from Royal Women’s Hospital records
  - 42 women were invited to join study while waiting for regular appointments in the hospital diabetes clinic waiting room
  - 86% response rate (n=36)
- Semi-structured interview
- The program was described and examples of program activities shown
Demographics of the sample

- Participants were aged 24 - 45 years (median 31 yrs)
- 53% of participants had family history of T2DM
- 25% were expecting their first child
- 36% were born in Australia
- Language spoken at home:
  - 36% English only
  - 39% English & another language
  - 9% A language other than English primarily
- 75% were university or TAFE educated

How the program was explained to the women

- Six fortnightly sessions of 1 ½ hours each
- Groups of 8-15 women
- Provides support for women with GDM to take charge of their lifestyle and prevent T2DM
- Fill in diaries of eating and physical activity
- Plan to make changes
- Group provides support

Results – Interest in program?

YES: 31 (86%)
Main reason: to learn about healthier eating habits
- ‘I’d like to learn more about food; types to buy and cook. I really want foods that are convenient and easy’
- ‘I need to learn more about diet, cooking and reading shopping labels’

NO: 5 (14%)
Main reasons: time constraints already made changes
- ‘I’m too busy and it’s too hard to get here as I need to rely on others to drive me’
- ‘I’m pretty clear about what I need to change and I’ve made lots of changes since I was diagnosed with GDM’

Results – preferred time of day for the program

MORNING: 17 (47%)
AFTERNOON 8 (22%)
EVENING: 7 (20%)

Main reason related to childcare issues:
- ‘Daughters are at school and child care so I’ll be more free [sic] to attend in the mornings’
- ‘I can have kids looked after and have time to plan my day and travel if the program is in the afternoon’
- ‘After work, my husband can look after the baby’

One woman said:
- ‘It’s my first baby and I just don’t know when would be the best time’

Earliest preferred time to attend course after baby born

- 17 (47%) travelled 30 minutes or less to get to the hospital
- 8 (22%) between 30-60 minutes
- 7 (19%) 60 minutes or more
- 4 (12%) no response

Travel

- Half of women travelled to the diabetes clinic by private car and half by public transport
Women were interested in the program, yet they had several barriers to attendance

Results – what would help you to attend the DPP?

- 18 (50%) would use childcare at the hospital if it was offered and affordable
- 9 (25%) indicated that assistance with transport to/from the course would be helpful
- 6 (17%) indicated that a reduced cost of parking would be helpful

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<thead>
<tr>
<th>Issue</th>
<th>Recommendations</th>
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<tr>
<td>Access to childcare</td>
<td>Free or subsidised childcare at hospital</td>
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<td>Transport difficulties</td>
<td>Individual phone contact to assist with transport planning</td>
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<td></td>
<td>Provide 6-day public transport pass</td>
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<td>Provide free or subsidised parking</td>
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<tr>
<td>Program timing</td>
<td>Flexible program start between 3-12 months post delivery</td>
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<td>Offer programs in morning, afternoon and evening</td>
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