



Understanding the experiences of a pragmatic lifestyle intervention for women with gestational diabetes mellitus and overweight/obesity to reduce maternal weight at 12 months postpartum

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The prevalence of Gestational Diabetes Mellitus (GDM) worldwide is approximately 14%⁽¹⁾, primarily due to a global increase in the rates of type 2 diabetes (T2D) and obesity in women of childbearing age. Whilst efforts to prevent these two conditions outside of pregnancy have shown positive results^(2,3), there is an urgent need to develop a tailored, pragmatic lifestyle intervention for women both during and after pregnancy. The PAIGE2 study, informed by a pilot study⁽⁴⁾, was a two parallel arm, 12-month, randomised controlled lifestyle intervention conducted across three maternity populations in Northern Ireland. Participants were recruited during pregnancy and comprised 237 women with GDM and body mass index >25 kg/m²⁽⁵⁾. The lifestyle intervention took place during pregnancy until 12 months postpartum. Women in the control group received standard maternity care. The primary outcome was percentage weight loss at 12 months postpartum between the two groups.

The aim of this qualitative study was to collect feedback information from the PAIGE2 mothers in the intervention group to determine their overall experience of the study, the acceptability of the intervention, their views on the different study components, any perceived strengths or weaknesses of the study and suggestions for improvement. Data collection was carried out by the PAIGE2 research team. Five online focus groups were conducted among 19 intervention mothers at the completion of the study. Mean (\pm standard deviation) age of mothers was 32.5 \pm 3.5 years. The focus groups were video/audio recorded and transcribed using Microsoft Teams.

Using content analysis, feedback was sought on 12 aspects of the lifestyle intervention including: overall experience in the study; the educational programme; a PAIGE2 information booklet; monthly phone calls and motivational text messages; the PAIGE2 Facebook group; Fitbit utility; experience of referral to a commercial weight management organisation; family/friend involvement; motivation throughout the study; timings of the study; longer term changes to lifestyle; and feedback/suggested improvements for the future. Most mothers found the different components of the intervention helpful although this varied among the women. Different intervention components were reported as being more effective than others (Fitbit, weekly text messages and monthly phone calls versus commercial weight management organisation and the Facebook group). Overall, the women thought the intervention had resulted in some lifestyle behavioural changes, including their nutritional habits and daily step count, regardless of their weight loss across the 12 months postpartum. A common suggestion for improvement was the need for a local group of postpartum mothers participating in the intervention to meet and share their experiences.

This feedback will be used to guide further revision of the intervention going forward.

References

1. Wang H, Li N, Chivese T *et al.* (2022) *Diabetes Res Clin Pract*, 183–109050.
2. Aroda VR, Christophi CA, Edelstein SL, *et al.* (2015) *J Clin Endocrinol Metab* **100** (4), 1646–53.
3. Martin, JC, Awoke, MA, Misso, ML, *et al.* (2021) *Obes Rev* **22**(10), e13280.
4. Holmes VA, Draffin CR, Patterson CC, *et al.* (2018) *J Clin Endocrinol Metab* **103**(7), 2478–87.
5. McAuley E, Fleck O, Cassidy L *et al.* (2023) *Front Clin Diabetes Health*, **4**, 1118509.