The Families Defeating Diabetes (FDD) study: documenting women’s dietary choices at 3 months post-partum after Gestational Diabetes

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Abstract
Research has confirmed that Type 2 diabetes (T2DM) can be at least partially prevented. A diet rich in a variety of vegetables and fruits is associated with a lower incidence of T2DM. However, a major challenge is to effectively translate T2DM prevention messages to the at-risk population.

The Families Defeating Diabetes (FDD) intervention aimed to translate T2DM prevention messages to women with recent gestational diabetes (GDM) in the context of their family. A total of 178 women participated in FDD.

We report here pre-interventional diet results for 53 FDD women residing in London (Ontario) at 3 months postpartum. Women were 35.2 ± 5.0 (mean ± SD) years old with body mass index of 34.2 ± 6.8 kg/m². Participants had 1.0 ± 1.1 child and it was the first pregnancy for 38% of them.

Food intake records indicated that the mean intake of milk and alternatives (2.0 ± 1.4 servings) and meat and alternatives (2.6 ± 1.2 servings) of the women met Canada’s Food Guide recommendations, while their intake of grain products was below recommendation (5.3 ± 2.9 servings). In addition, women consumed 4.4 ± 2.7 servings of vegetables and fruits. Only 19% of women were consuming the Canada’s Food Guide recommended vegetable and fruit intake.

These results indicate the need for focused dietary intervention to assist women with recent GDM to adopt potentially-protective healthy eating patterns in the postpartum period.

Methods
Admission to this study was offered to overweight English-speaking women with GDM. Information was gathered from a total of 178 women and their consenting family members over three participating sites: London, Ontario, Calgary, Alberta, and Victoria, British-Columbia.

All participants had seen an RD CDE during their most recent pregnancy for advice on the GDM diet. Participants completed food intake records and questionnaires evaluating lifestyle habits at pre-delivery, 3, 6 and 12 months postpartum, while the FDD intervention started after completion of the third month study visit. Here we report the food intake analyses from 3 months postpartum for an initial cohort of 53 women, all from London (Ontario).

Results
Fifty-three FDD women residing in London (Ontario) were aged 35.2 ± 5.0 (mean ± SD) and had a body mass index (BMI) of 34.2 ± 6.8 kg/m² at 3 months post-partum. Participants had 1.0 ± 1.1 child and 38% of them were in their first pregnancy. Analysis of 24 hour food intake records showed that the mean intake of milk and alternatives (2.0 ± 1.4 servings) and meat and alternatives (2.6 ± 1.2 servings) of the women met Canada’s Food Guide recommendations, while their intake of grain products was below recommendation (5.3 ± 2.9 servings).

In addition, the mean daily consumption of vegetables and fruits of the participants was 4.4 ± 2.7. Their daily intake of vegetables was 2.5 ± 2.0 servings and their intake of fruits was 1.8 ± 1.8 servings. Eighty-three percent of women had a lower intake of vegetables and fruits then recommended by Eating Well with Canada’s Food Guide.

Conclusion
Women who participated in the FDD study at 3 months postpartum had lower than recommended consumption of vegetables and fruits as well as grain products based on food intake records. These results indicate the need for focused dietary intervention to assist women with recent GDM to adopt potentially-protective healthy eating patterns in the postpartum period. Vegetables and fruits are important sources of dietary fiber, vitamins and minerals, as well as being low-fat choices, which may be beneficial for those women in the prevention of T2DM.

Further analyses of the dietary intake records from women from all three FDD study sites, as well as diet choices over the 12 months of the study will be of interest.

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References