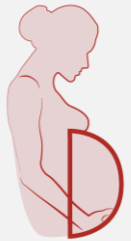




A CULTURALLY-TAILORED PERSONALIZED
NUTRITION INTERVENTION IN SOUTH ASIAN
WOMEN AT RISK OF GESTATIONAL DIABETES
MELLITUS (DESI-GDM) – A RANDOMIZED TRIAL



DESI-GDM



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WHAT IS GESTATIONAL DIABETES?

- gestational diabetes is diabetes diagnosed for the first time during pregnancy (gestation)
- affects how the body's cells use sugar (glucose)
- causes high blood sugar that affects health of mother and baby
- blood sugar usually returns to normal soon after delivery

WHY SHOULD WE PREVENT IT?

- Associated with pregnancy and birth complications – macrosomia, C-section delivery, high blood pressure
- Strong risk factor for type 2 diabetes in the mother (T2DM)
 - Up to 50% of women diagnosed with GDM develop T2DM within 5 years of giving
 - Lifetime risk of T2DM is 7-fold that of a woman who does not develop GDM
- Associated with cardiovascular disease risk in the mother, and increases risk of T2DM in the child by up to 8-fold

WHY STUDY SOUTH ASIAN WOMEN?

- South Asians (SA), people whose ancestors originate from India, Pakistan, Bangladesh, or Sri Lanka
- In 2016, >1.9 million Canadians (5.4% of the population) were of SA ancestry—the largest visible minority group in our country (25.6%)
- SA women have double the risk of GDM of white European women
- 1 in 3 pregnant South Asian women living in Ontario have gestational diabetes

WHY CULTURALLY-TAILORED?

- Food choice is complex, and highly-influenced by culture
- Diet recommendations are useless if not followed
- If such recommendations don't consider personal preferences, they are unlikely to be followed

OUR RESEARCH QUESTION

- Primary Research Question
 - Does a culturally tailored, personalized nutrition intervention delivered by a trained health coach **improve blood sugar levels** in South Asian women to a greater extent than usual dietary advice?
- Secondary Research Question
 - Does a culturally tailored, personalized nutrition intervention delivered by a trained health coach to pregnant South Asian women **reduce the incidence of gestational diabetes mellitus** to a greater extent than usual dietary advice?

OUR STUDY DESIGN

- 2-arm, parallel randomized controlled trial of health coaching to improve diet and encourage walking during pregnancy



Eligibility

Singleton pregnancy
South Asian ancestry
Gestational weeks 12-18
At least 2 of:
Age >29
Low diet quality
Family history of DM
Previous GDM
Pre-pregnancy BMI >23

Exclude

Type 1 or Type 2 Diabetes
High Blood Pressure
Poor understanding of English
Unwilling to modify diet
Unable to walk
High-risk pregnancy
Unable to receive text messages

Intervention (n=95)

Control (n=95)

6-16 weeks

- Bi-weekly health coaching
- Geared to 2-4 SMART goals
- Weekly text messages (diet)
- Weekly text messages (walking)

- Weekly text messages (diet)
- Standard printed materials

Week 24-28

- OGTT
- OGTT

TEXT MESSAGE CATEGORIES

1. Walking
2. Eating out healthy
3. Controlling over-eating
4. Reducing high-fat, fried foods
5. Reducing highly-refined carbohydrate
6. Encouraging mindful eating
7. Increasing good quality protein intake
8. Reducing indulgence in sweets/desserts
9. Reducing intake of sugary beverages
10. Cooking meals at home more
11. Improved meal planning (eating at regular times)
12. Eating more fruits and vegetables

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