

**Women's experiences with gestational diabetes: Implications for
diabetes prevention programs**
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Gestational diabetes mellitus (GDM) is an abnormal carbohydrate tolerance diagnosed or first recognized during pregnancy and occurs in 1% to 14% of all pregnancies (Kim et al., 2006) with an increasing prevalence among multiethnic groups (Ferrara, 2007). Risk factors for GDM include maternal age, race/ethnicity, parity, body mass index, hypertension and smoking status (Lawrence, 2011). Although GDM typically resolves immediately after delivery, women with a history of GDM are at increased risk for type 2 diabetes and almost 20% will develop diabetes within nine years postpartum (Bellamy, Casas, Hingorani, & Williams, 2009; Feig, Zinman, Wang, & Hux, 2008).

A diagnosis of GDM presents health challenges requiring adjustments to a woman's usual pregnancy and postpartum trajectory but also provides health providers an opportunity to identify 'at risk' women and promote long-term health behaviour changes. Diabetes management during pregnancy is particularly stressful for women and their families (Persson, Winkvist, & Mogren, 2010; Kaptein, Evans, McTavish, Banerjee, Lowe, Liscombe, 2014 in review), as they are primarily concerned about the well-being of their expected child (Evans & O'Brien, 2005). However, knowing their risk for developing diabetes could act as a catalyst towards women making healthy lifestyle changes post-partum (Evans, Patrick, & Wellington, 2010).

There is evidence that diabetes can be prevented through lifestyle changes, such as diet and physical activity. Clinical practice guidelines recommend universal screening and treatment of GDM during pregnancy and maternal diabetes screening and lifestyle modification counselling postpartum (Canadian Diabetes Association, 2013). However, few studies have assessed the extent to which women with GDM recognize their risk and need to make lifestyle modifications.

One survey study showed that lifestyle counselling during pregnancy was largely ineffective at producing post-partum lifestyle changes (Kim, 2007). New mothers express experiencing challenges with engaging and maintaining healthy lifestyle postpartum. Furthermore women with previous GDM have shown a low adherence to recommended guidelines for lifestyle behavioural changes (Kaiser, & Razurel, 2013).

The ability to make lifestyle changes is influenced by a women's mental well-being, perceived stress, role expectations, social support networks and cultural beliefs (Razee et al., 2010; Stark & Brinkley, 2007; Bandyopadhyay, Small, Davey, Oats, Forster & Aylward, 2011). Women's perceptions of an 'at risk' pregnancy is related to their present health status, past experiences, personal beliefs and values (Devine, Bove & Olsen, 2000) and may influence their engagement in healthy behaviours (Fehler, Kennedy, McCargar, Bell, & Ryan, 2007; Lawrence, 2011; Stage, Ronneby & Damm, 2004). Thus, in order to optimize healthy behavioural change interventions aimed at women with recent GDM need to be context based to help address unique barriers they experience. To optimize the 'window of opportunity' of a GDM pregnancy and promote health behaviour changes, we first need to understand the barriers and facilitators faced by women in maintaining a healthy lifestyle. The purpose of this qualitative descriptive study of women with GDM was to gain insight into the experiences of women with GDM including factors associated with diabetes prevention practices, healthy behavioral change, and their perceptions regarding their health status, risk for diabetes and need for lifestyle modification. A semi-structured interview guide based on Andersen's model of health behaviour (Phillips, Morrison, Andersen & Aday, 1998) which identifies predisposing, enabling and need factors that may influence a woman's readiness to engage in health behaviour change was developed for this study.

A purposive sample of 16 women between 3-12 months postpartum (part of a larger longitudinal cohort group) were recruited for this study. The women had previously attended one of two separate diabetes-in-pregnancy clinics located in Toronto, Ontario during GDM care. Data collection continued until no new information emerged from the data and theme saturation was reached. Telephone interviews were conducted with all participants, subsequently transcribed verbatim, checked for accuracy and entered into Nvivo 9 for analysis. All transcripts were analyzed using qualitative content analysis. Results have policy and practice implications for enhancing maternal health promotion programs specifically to help address the increasing rate of diabetes in this high risk population. Many women expressed knowledge of their risk for future diabetes but only half indicated being overly worried about developing diabetes. The women reported adjusting to the demands of postpartum often took precedence rather than engaging in more healthy behaviours. Preventive interventions and postpartum programs are needed to provide social support, flexibility and consider women's individual circumstances need to be developed to decrease the burden of diabetes in mothers with previous GDM.

Learning Objectives

1. To describe facilitators and barriers that impact lifestyle modifications by women with gestational diabetes
2. To gain an understanding of the ongoing postpartum needs of women with gestational diabetes
3. To discuss implications for best practices, health policy and future research concerning diabetes prevention in at risk women

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