Women and Birth 30 (2017) 319–324

Contents lists available at ScienceDirect

Women and Birth

journal homepage: www.elsevier.com/locate/wombi

Original Research - Qualitative

Barriers to a healthy lifestyle post gestational-diabetes: An Australian qualitative study

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ARTICLE INFO

Article history:
Received 19 September 2016
Accepted 25 December 2016

Keywords:
Gestational diabetes
Health promotion
Immigrants
Lifestyle
Physical activity

ABSTRACT

Background: Overseas-born-women from certain ethnicities are at high risk of type-2 diabetes and related metabolic disorders. This study explored the barriers and facilitators to long-term healthy lifestyle recommendations among Australian-born and overseas-born-women who attended health promotion sessions at a tertiary Australian Hospital for gestational diabetes 3–4 years previously.
Method: Face-to-face semi-structured interviews were conducted. Data were analyzed to identify major themes and the differing experiences of both groups of women.
Findings: Women in both groups faced many barriers to improve post-gestational-diabetes lifestyle. Women from both groups recalled healthy lifestyle recommendations for during pregnancy they receivedat the service, but had difficulty recalling the long-term lifestyle recommendations. Timing of the health information, non-reiteration of lifestyle recommendations, uncoordinated and fragmented health system support after childbirth were barriers faced by all women. Additional barriers for overseas-born women included the cultural competence of the health education material, their cultural preferences for food and physical activities and unsupportive family and partner. Both groups had excellent compliance with the first annual postnatal oral-glucose-tolerance-test. This was attributed to the personal motivation and health professional reminder. Women only reverted to the healthy lifestyles postnatally for weight loss.
Conclusion: A better understanding of the barriers to healthy lifestyle by women in their everyday lives will assist in the development of culturally appropriate health promotion guidelines and strategies. Constant un-fragmented postnatal engagement by the specialised diabetes clinics and primary health care services is crucial to sustain the healthy lifestyle in the long-term for women with previous gestational-diabetes.

Statement of significance

Problem or issue

Women with gestational diabetes have poor compliance with healthy lifestyle recommendations after childbirth. Non-compliance is greater in overseas-born-women.

What is already known

Common reasons for noncompliance in overseas-born-women are lack of assistance with child-care, mental distress, low partner and social support.

What this paper adds

This article identifies weak and fragmented health system as a crucial barrier for women, more so for the overseas-born-women. The risk of diabetes could be reduced in these high risk women with sustained engagement through integrated postnatal services by the specialized clinics and primary health care service providers in the longterm.

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http://dx.doi.org/10.1016/j.wombi.2016.12.003
1871-5192/

1. Introduction

The increasing global incidence of gestational-diabetes (GDM) positively correlates with the obesity epidemic, increasing maternal age, and migration of women of high-risk ethnicity to large cities and westernized countries.[1] About 47% of the Australian population were born overseas or have a parent born overseas.[3] In Australia, the incidence of GDM increased by 21% between 2000 and 2009 and was twice as high in overseas-born-women compared with Australian-born-women.[2]

Women with GDM have increased adverse maternal and neonatal outcomes such as preeclampsia, caesarean section, macrosomia and neonatal hypoglycaemia.[5,6] GDM also increases the maternal and child risk of type 2 diabetes [T2D] and other metabolic conditions in the long-term,[7,8] making it a priority area for primary health services. With increasing immigration, the incidence of GDM and associated conditions is expected to rise, putting more burden on the health care system.

Once diagnosed with GDM, women are advised to consume a healthy varied diet, and to control portion sizes. They are also advised to take moderate physical activity of 30 min most days of the week. The healthy diet and physical activity (referred to as a healthy-lifestyle) is recommended for the duration of pregnancy, after childbirth[9] and for the rest of their lives due to their increased T2D risk. Evidence shows that many women follow a healthy lifestyle during pregnancy, but fail to continue after childbirth.[10–13]

Few Australian studies have explored the lifestyles of overseas-born-women with GDM after childbirth. These studies reported barriers such as lack of assistance with child-care, mental distress, low partner and social support, resulting in poor compliance with the healthy lifestyle following childbirth.[10,11,14]

The current study investigated Australian-born-women and overseas-born-women managed by the Diabetes-in-Pregnancy-Service (DIPS) at the Canberra Hospital (TCH). It aimed to compare and contrast the experiences of Australian-born-women and overseas-born-women with a history of GDM in following the healthy lifestyle recommendations after childbirth. It investigated whether women with a history of GDM were aware of healthy lifestyle recommendations for post pregnancy; encountered barriers in following recommended healthy lifestyles, and if these barriers were greater for overseas-born-women compared to Australian-born-women.

2. Methods

A qualitative, interview-based study was used to investigate the experiences of women trying to follow the health advice they received during pregnancy to maintain a healthy lifestyle more than three years after child-birth.

2.1. Sampling and recruitment

The study was approved by the Australian Capital Territory and Australian National University, Human Research Ethics Committees. It conforms to the Australian National Statement on Ethical Conduct in Research Involving Humans (2007 updated in May 2013).[15]

A two-stage recruitment process was adopted. DIPS staff compiled a list of all women (Australian-born-women and overseas-born-women) who attended a GDM related health education programme and delivered a live singleton baby between 1 June 2009 and 31 May 2011 at TCH. Australian-born-women and overseas-born-women from the list were then invited to participate. Women with another pregnancy or childbirth after the study cut-off point, or who were diagnosed with T2D or could not communicate in English were excluded.

Seventy-one women (18 Australian-born-women and 53 overseas-born-women) who agreed to participate were sent a participant information sheet containing study details. The lead author (TZ) phoned the women to arrange an interview. Thirty women agreed to participate. Seven overseas-born-women were found later to be ineligible; two had T2D, and five had a subsequent child.

2.2. Data collection and analysis

Face-to-face interviews were held in English between March–July 2014 at a time and place convenient to the participants. Interviews were audio-recorded with the participants' consent.[16] TZ used a topic guide to steer open-ended questions covering previous GDM experience, diet and physical activity after GDM, post-natal glucose tolerance test and barriers and facilitators to follow the healthy lifestyle recommendations of the DIPS during pregnancy and in the long-term. Interviewing for Australian-born-women concluded once no new information emerged from interviews.[16] Due to diversity of overseas-born-women, the data saturation could not be achieved and interviews continued till the end of the data collection period.

TZ transcribed the qualitative interviews verbatim and used NVivo (version 10) for data management. Thematic analysis was conducted to search for themes or patterns across the interviews.[17] Coding was initially based on interview questions and then refined as the interviews continued. A number of themes were identified, based on inductive and deductive codes and have been organized into the broad categories of barriers and facilitators.

3. Results

Of the 23 interviews, 8 were with Australian-born-women and 15 with women born overseas. The Australian-born-women were mainly of European or British descent. Tables 1 and 2 show participant's demographic characteristics.

3.1. Barriers to continuing a healthy lifestyle

This study aimed to identify barriers and facilitators that could be used to improve the service, particularly for women who found it difficult to follow healthy lifestyle recommendations provided by the DIPS. Fig. 1 provides a list of barriers to healthy lifestyle faced by the study participants.

3.2. Difficulty in recall of long-term lifestyle advice

A group of six to eight women from all ethnicities and backgrounds attended their GDM health education group session at 24–28 weeks of pregnancy. This session was conducted in English and lasted for two hours. Women received oral and written information about GDM causation and their increased risk of future T2D and other metabolic conditions. They were informed about healthy diet and physical activity, skills to measure and record blood glucose levels, and were registered with the National Diabetes Services Scheme (NDSS). The written take-home information consisted of more than 10 different brochures in English elaborating information provided in the oral talk.

Women reflected that the information provided in the health education group session was more focused on the pregnancy lifestyle than the long-term lifestyle changes. There was more emphasis on diet related changes compared to the physical activity. Overseas-born-women, in particular, recalled being informed about GDM as a condition of pregnancy and therefore