

Socio-cultural aspects of self-management in gestational diabetes

Dhuha Youssef Wazqar, Marilyn K Evans

Article points

1. This article reports the findings of a secondary qualitative analysis study which explored the socio-cultural and family factors associated with pregnant Canadian women's self-management of gestational diabetes (GD).
2. The findings reveal that socio-cultural and family factors, family unity, social expectations, and knowledge and understanding about GD were important elements of diabetes self-management practices for pregnant Canadian women.
3. Women's ability to manage GD is embedded in the social and cultural context of their lives. This study's findings highlight the need for a holistic approach that ensures personal support and family involvement in diabetes self-management.

Key words

- Canada
- Gestational diabetes
- Psychosocial factors
- Self-management
- Social support

Author's details can be found at the end of this article.

Extensive research has been conducted into diabetes self-management; however, there is a significant knowledge gap relating to the socio-cultural factors that may affect self-management of women with gestational diabetes (GD). Such understanding may inform culturally sensitive interventions and educational programmes to improve self-management. The purpose of this secondary qualitative analysis, therefore, was to gain an understanding of the socio-cultural factors pertaining to pregnant women's experience of diabetes self-management. The findings reveal that socio-cultural and family factors, family unity, social expectations, and knowledge and understanding about GD were important elements of diabetes self-management practices for pregnant Canadian women. Focusing attention on socio-cultural aspects in self-management in diabetes educational programmes may well be central to improving the health of women with GD. Further research is needed to consider how best to eliminate the subject of social stigma associated with GD.

Although self-management has a critical role to play in diabetes care – as is clear from the Canadian Diabetes Association (2008) and American Diabetes Association (Bloomgarden, 2003) – this raises specific issues for pregnant women with gestational diabetes (GD), who may find self-management more of a burden because of increasing ill health and a lack of information about diabetes.

This article reports the findings of a secondary qualitative analysis study that explored the socio-cultural and family factors associated with women's self-management of GD. It is hoped that this research study will help nurses and other healthcare professionals

to understand women's social and cultural context, and their behavioural practices of self-management.

Background: Primary analysis

Surprisingly little is known about what socio-cultural and family factors play a role in diabetes self-management practices from the perspective of women with GD, and Canadian pregnant women in particular. The research to date suggests that diabetes self-management practices of pregnant women with diabetes may be better understood from a socio-cultural and family perspective (Nolan et al, 2011). The secondary qualitative analysis study outlined in this article explores the socio-cultural

and family factors associated with Canadian women's self-management of GD.

In the original study by Evans and O'Brien (2005), a hermeneutic phenomenological approach was used to explore women's lived experience of managing and living with GD. Permission for the original study was obtained from the Ethics Review Board at the University of Alberta. A purposeful sample of 12 pregnant women who were diagnosed with, and being treated for, GD was obtained. The participants were aged 23–38 years and all but one worked outside the home. Eleven women were married and one was in a common-law relationship. This was the first pregnancy for four of the women, the second for five, and the third or more for three. Two women had been diagnosed with GD in a prior pregnancy and the rest were diagnosed with GD through the index pregnancy. One of the women reported that she had high blood glucose levels about 6 months before she got pregnant.

The participants provided information pertaining to their childbearing experience. Two in-depth interviews with each participant occurred, one before the women gave birth and the second, 6–8 weeks postpartum. Using an unstructured interview guide, the researcher maintained a conversational style with each participant. The researcher in the original study used the thematic analysis guidelines of Van Manen (1990), and data analysis involved a reflective process to uncover interpreted patterns and themes.

Secondary analysis

Aims

The aim of this secondary qualitative analysis was to gain an understanding of the socio-cultural factors pertaining to pregnant women's experience of GD self-management.

Methods

Secondary analysis of qualitative data involves re-examining existing qualitatively derived data to answer research questions that are different and discrete from those of the original study (Heaton, 2004).

The prenatal audio-tapes and interview transcripts of all 12 participants in the original study were purposefully selected from the original 24 audio-tapes and interview transcripts to explore data relevant to the socio-cultural and family factors of diabetes self-management practices during pregnancy.

The guidelines of Lofland et al (2006) were used for inductive data-based analysis. The 12 interview transcripts were initially read in their entirety along with the field notes to provide more rich and varied data. The researcher used qualitative content analysis to describe and interpret the content of the transcripts by using a systematic strategy of coding and identifying patterns and themes. Analysis began with the initial coding of salient words, phrases and sentences, where the data were condensed and organised into meaningful categories. Memos, the use of supplementary notes and background information that focused on crucial issues, emerging codes, and interconnections were kept.

Results

Three interrelated themes that described the socio-cultural factors for diabetes self-management by pregnant women were identified:

- Family unity.
- Social expectations.
- Knowledge and understanding about GD.

Family unity

Family unity includes family support and surveillance, and was central to the women's diabetes self-management practices. Family unity is characterised by family members coming together to help women feel supported, encouraged and motivated to engage in diabetes self-management. One woman talked about her husband listening to her and being interested in how she was feeling:

“He just listens to me, listens to me a lot ... he is very interested in how I am feeling ... So now with this, this is just amazing how much, that support ... So that helped me a lot, he was there.”

Page points

1. The aim of this secondary qualitative analysis was to gain an understanding of the socio-cultural factors pertaining to pregnant women's experience of gestational diabetes self-management.
2. Secondary analysis of qualitative data involves re-examining existing qualitatively derived data to answer research questions that are different and discrete from those of the original study.
3. Three interrelated themes that described the socio-cultural factors for diabetes self-management by pregnant women were identified: family unity; social expectations; and knowledge and understanding about gestational diabetes.

Page points

1. The women described feeling under constant surveillance by their immediate and extended family members, who monitored, directed and advised the women as they managed their diabetes.
2. Some participants expressed their concerns about how other people might react once they knew about the diabetes. Many women talked about being embarrassed and ashamed about having gestational diabetes and some tried to keep their diagnosis hidden from family members, relatives and friends.
3. Some women reported their level of knowledge and understanding regarding diabetes disease processes as inadequate for themselves and their family members. Some women also indicated a lack of information regarding a diabetes diet and laboratory results provided by healthcare professionals.

The women also described feeling under constant surveillance by their immediate and extended family members, who monitored, directed and advised the women as they managed their diabetes. One woman stated:

“It’s ok. But I usually go out with my aunt for coffee or tea, something like that. She told me not to eat this, not to eat that, you know ... they say ‘don’t eat too much chilli’ or whatever. Yeah, they try to help me, but it is sometimes very frustrating.”

Some participants considered the surveillance shown by family members as taking control over their decisions and their pregnancies. In describing her husband’s actions regarding what she could eat, one woman referred to him as “my parole officer”.

Social expectations

The women described how GD influenced their social interactions and their participation in social gatherings with family and friends. Some participants expressed their concerns about how other people might react once they knew about the diabetes. Many women talked about being embarrassed and ashamed about having GD and some tried to keep their diagnosis hidden from family members, relatives and friends. Also, some participants stated that people react to them negatively regarding their weight gain and eating habits. To avoid negative attention from others, women reported that they self-administered insulin in private, for example in public washrooms or in another room at home.

Participants described having to attend social gatherings that often involved large quantities of food and celebration. They discussed having to “come up with better or new excuses” for not attending social celebrations or, if present, avoiding certain foods such as “snacks”. Interestingly, they expressed avoiding certain dietary practices, such as junk food. In addition, to engage in social gatherings, some women talked about cheating on their diet and neglecting to perform blood glucose tests at prescribed times.

Knowledge and understanding about GD

The final theme, knowledge and understanding about GD, includes the sub-categories of disease process and family knowledge and refers to the information acquired by women and their families about GD and its management.

Women talked about some beliefs associated with diabetes causation. In addition, women cited obesity, bad lifestyle habits, heredity and a family history as risk factors for GD. However, some women reported their level of knowledge and understanding regarding diabetes disease processes as inadequate for themselves and their family members. Some women also indicated a lack of information regarding a diabetes diet and laboratory results provided by healthcare professionals. For example, one woman said:

“So I still don’t understand why ... They could have given information on how to measure food ... food that I could eat, tell my family what was going on, how they could have helped me to take better care of diabetes.”

Some women searched for additional information related to diet and specific disease processes themselves, or asked family members and friends to do this for them. The women also expressed that their partners did not have enough knowledge about the disease process, risk factors and their need to follow a strict diet:

“Sometimes I do not think that he understands the fact that, you know, this actually could cause me to eventually be on insulin for the rest of my life ... and he thinks eating properly is like loading my plate up. You know, it’s all good food so ... Yeah, exactly, he does not understand.”

Some of the participants commented that having information and education classes for them and their families would have been helpful in controlling their diabetes:

“Well, I guess, given the information it’s like, ‘Here, you take the ball, and you run with it’, you know ... It would be helpful for ... uh ... for everybody to come like ... uh ... family ... That way they’re all informed of what I can eat.”

Discussion

Several socio-cultural and family factors – namely family unity, social expectations, and knowledge and understanding about GD – were shown to enter into pregnant women’s diabetes self-management in the context of their daily lives. Some of these factors are similar to those identified in previous research in non-pregnant women with diabetes, such as lack of knowledge about the disease process, and social stigma (Samuel-Hodge et al, 2000; Finucane and McMullen, 2008). Additional factors that entered into women’s diabetes self-management practices included family support, the role of family members and culture.

The findings of this study indicate that family unity, family relations and family support networks were very important to help women with GD engage in self-management practices. Family unity represents a cultural norm: that is, when someone has a health issue, family members come together to cope with this issue as a group (Ford-Gilboe, 1997).

Family in this study involved nuclear, extended and kinship network members who were consistently involved in the process of managing GD. Family unity played an important role in the health and wellbeing of the study participants. These findings are consistent with other research on family unity and family having a role in disease management (Georgas et al, 2006; Hughson, 2007; Tarnovetskaia and Hopper-Cook, 2008).

Family members provide various types of support, encouragement and motivation to the pregnant women. Participants talked about receiving all types of social support (emotional, information and practical) from their family members in carrying out their daily self-management tasks. These types of social support have been identified in previous

diabetes care research (Gonder-Frederick et al, 2002; Paddison, 2010). For example, researchers found that family members, in particular partners or spouses, consistently monitored the women’s behaviours to ensure the necessary tasks and activities, such as eating correctly, were carried out (Samuel-Hodge et al, 2000; Paddison, 2010).

Control issues over the women’s diabetes management practices were present between the women and their immediate and extended family members. Some participants considered the constant surveillance shown by family members as unhelpful, undermining their ability to engage in self-management. These findings were consistent with other research on control issues between individuals and family members and negative family roles in diabetes self-management (Maillet et al, 1996; Boston et al, 1997; Chesla et al, 2004; Duke et al, 2008). For example, Maillet et al (1996) found that spouses were generally regarded as supportive, but their support sometimes made the respondents feel overly restricted and controlled in their dietary choices. Diabetes educational programmes, therefore, might best focus not only on the women with GD, but also on contextual factors such as family structure, support and relationships within the family and external to the women’s immediate family.

In this study, diabetes was seen as a condition to be “kept hidden”, and “a secret from family and friends”. These findings are consistent with previous research findings pertaining to individuals living with diabetes (Scollan-Koliopoulos, 2004; Tessaro et al, 2005). For example, Boston et al (1997) found that many participants had feelings of isolation from not being able to join in social activities because diabetes is “a secret from family and friends” and “a stigma”. The social expectations about pregnancy being disease free and the diabetes-related social stigma, which the participants described, might explain why many participants were reluctant to inform others about their diagnosis. This reluctance reflected the women’s expressed fear of negative reaction of others, and feelings

Page points

1. Several socio-cultural and family factors – namely family unity, social expectations, and knowledge and understanding about gestational diabetes (GD) – were shown to enter into pregnant women’s diabetes self-management in the context of their daily lives.
2. The findings of this study indicate that family unity, family relations and family support networks were very important to help women with GD engage in self-management practices.
3. The social expectations about pregnancy being disease free and the diabetes-related social stigma, which the participants described, might explain why many participants were reluctant to inform others about their diagnosis.

Page points

1. The findings suggest that counselling sessions for women with gestational diabetes (GD) and their family members may be an important component of diabetes educational programmes, with a view to minimising stigmatisation.
2. The study findings suggest that women and their families received inadequate information about diabetes and self-management from healthcare professionals.
3. More emphasis needs to be directed towards families, rather than the woman with GD, to help enhance diabetes self-management practices.

about being ashamed and embarrassed about having GD. These findings suggest that counselling sessions for women with GD and their family members may be an important component of diabetes educational programmes, with a view to minimising stigmatisation.

A major challenge the women faced in managing their diabetes involved participation in social activities. For example, participants described difficulties in trying to self-manage their diabetes when encountering large quantities of food at social events while having dietary restrictions. However, they recognised their accountability for engaging in diabetes self-management.

Being diagnosed with GD may empower women to manage diabetes properly for maternal and fetal wellbeing (Smith-Morris, 2006). The women's actions to manage their diabetes, however, defied social norms and expectations regarding participation in family and social gatherings. Withdrawal from social situations, such as family and social gatherings, was common, potentially leading to social isolation.

The study findings suggest that women and their families received inadequate information about diabetes and self-management from healthcare professionals. Many participants obtained additional information through personal effort or from family members with the condition. In one study about deterrents to participation in diabetes education, Sanghera (1997) reported that one-third of participants who had knowledge about their condition obtained the information from websites, media and friends.

Lacking knowledge about their condition, dietary education and access to diabetes needed supplies, individuals frequently rely on information that can be incomplete, invalid or inaccurate (Murphy and Kinmonth, 1995). Providing women with GD with enough information to make informed decisions about diabetes self-management and encouraging the family members to become more knowledgeable and involved in diabetes care are recognised as elements of proper diabetes

self-management (Gonder-Frederick et al, 2002). More emphasis needs to be directed towards families, rather than the woman with GD, to help enhance diabetes self-management practices.

Conclusion

Women's ability to manage diabetes is embedded in the social and cultural context of their lives. This study's findings highlight the need for a holistic approach that ensures personal support and family involvement in diabetes self-management.

Healthcare professionals need to acknowledge a woman's social and cultural context as well as the supportive role played by family members. In addition, family-oriented diabetes educational programmes for women with GD might best focus on promoting a supportive atmosphere for self-care management in both the family and the broader social environment, because this support appears to help initiate engagement in diabetes self-care management.

Also, identification of the socio-cultural factors that enter into diabetes self-care management in different ethnic groups would further improve our understanding of the unique needs of individuals in diverse populations, and provide knowledge for the development of culturally sensitive intervention programmes.

Nurses and other healthcare professionals might benefit from exploring the cultural belief systems of Canadian women with GD, as greater depth of understanding may enable them to discover more effective diabetes self-care strategies. ■

Authors

Dhuha Youssef Wazqar, PhD student in Nursing Leadership in Health Services Delivery Program; Marilyn K Evans, Assistant Professor, Arthur Labatt Family School of Nursing, Faculty of Health Sciences, University of Western Ontario, London, Ontario, Canada.

Acknowledgements

To Dr Evans, thank you for sharing your knowledge, insight and guidance. Also, I would like to contribute my success to my lovely children, Retal, Faisal and Mohammed, who

have traveled with me on this journey. I would also like to acknowledge the Saudi Cultural Bureau, the Ministry of Higher Education of Saudi Arabia and King Abdul-Aziz University for providing me with a scholarship fundamental to conduct research.

Bloomgarden ZT (2003) American Diabetes Association annual meeting, June 2003: gastrointestinal and dietary aspects of diabetes. *Diabetes Care* **26**: 2941–6

Boston P, Jordan S, MacNamara E et al (1997) Using participatory action research to understand the meanings aboriginal Canadians attribute to the rising incidence of diabetes. *Chron Dis Can* **18**: 5–12

Canadian Diabetes Association (2008) Canadian Diabetes Association 2008 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada. *Canadian Journal of Diabetes* **32** (Supp 1): S1–S201

Chesla CA, Fisher L, Mullan JT et al (2004) Family and disease management in African-American patients with type 2 diabetes. *Diabetes Care* **27**: 2850–5

Duke DC, Geffken GR, Lewin AB et al (2008) Glycemic control in youth with type 1 diabetes: family predictors and mediators. *J Pediatr Psychol* **33**: 719–27

Evans M, O'Brien B (2005) Gestational diabetes: the meaning of an at-risk pregnancy. *Qual Health Res* **15**: 66–81

Finucane ML, McMullen CK (2008) Making diabetes self-management education culturally relevant for Filipino Americans in Hawaii. *Diabetes Educ* **34**: 841–53

Ford-Gilboe M (1997) Family strengths, motivation, and resources as predictors of health promotion behavior in single-parent and two-parent families. *Res Nurs Health* **20**: 205–17

Georgas J, Berry JW, van de Vijver FJ et al, eds (2006) *Families Across Culture: A 30-Nations Psychological Study*. Cambridge University Press, Cambridge

Gonder-Frederick LA, Cox DJ, Ritterband LM (2002) Diabetes and behavioral medicine: the second decade. *J Consult Clin Psychol* **70**: 611–25

Heaton J (2004) *Reworking Qualitative Data: The Possibility of Secondary Analysis*. Sage Publications Ltd, New Delhi, India

Hughson AE (2007) Social change and the power of families. *International Journal of Disability, Community and Rehabilitation* **6**: 15–30

Lofland J, Snow DA, Anderson L, Loftland H (2006) *Analyzing Social Settings: A Guide to Qualitative Observation and Analysis*. Wadsworth Publishing Co Inc., Belmont, CA, USA

Maillet NA, D'Eramo Melkus G, Spollett G (1996) Using focus groups to characterize the health beliefs and practices of black women with non-insulin-dependent diabetes. *Diabetes Educ* **22**: 39–46

Murphy E, Kinmonth AL (1995) No symptoms, no problem? Patients' understanding of non-insulin dependent diabetes. *Fam Pract* **12**: 184–92

Nolan JA, McCrone S, Chertok IR (2011) The maternal experience of having diabetes in pregnancy. *J Am Acad Nurse Pract* **23**: 611–8

Paddison C (2010) Family support and conflict among adult with type 2 diabetes: development and testing of a new measure. *European Diabetes Nursing* **7**: 29–33

Samuel-Hodge CD, Headen SW, Skelly AH et al (2000) Influences on day-to-day self-management of type 2 diabetes among African-American women: spirituality, the multi-caregiver role, and other social context factors. *Diabetes Care* **23**: 928–33

Sanghera RR (1997) Deterrents to participation in diabetes education: Perspectives of elderly Sikh Endo-Canadian. University of British Columbia, Vancouver. Available at: <http://bit.ly/xXQa2e> (accessed 01.02.12)

Scollan-Koliopoulos M (2004) Consideration for legacies about diabetes and self-care for the family with a multigenerational occurrence of type 2 diabetes. *Nurs Health Sci* **61**: 223–7

Smith-Morris CM (2006) Community participation in tribal diabetes programs. *Am Ind Cult Res J* **30**: 85–110

Tarnovetskaia A, Hopper-Cook L (2008) The impact of cultural values, family involvement and health services on mental health and mental illness. *Canadian Journal of Family and Youth* **1**: 113–26

Tessaro I, Smith SL, Rye S (2005) Knowledge and perceptions of diabetes in an Appalachian population. *Prev Chronic Dis* **2**: A13

Van Manen M (1990) *Researching Lived Experience: Human Science for an Action Sensitive Pedagogy*. Althouse, London, Canada

“This study’s findings highlight the need for an holistic approach that ensures personal support and family involvement in diabetes self-management.”