Athabasca University Master of Arts - Integrated Studies

COMMUNITY-BASED PROGRAMS: THE IMPORTANCE OF ASSESSING THE NEEDS OF THE COMMUNITY IN PROGRAM PLANNING

By

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Dedication

This research project is dedicated to all those women who gave of their time and energy to share views, voice opinions and make suggestions on how to improve and expand the Post Gestational Diabetes Prevention Program into the South Asian community. Their feedback has been helpful to those planning community-based programs and writing funding proposals. The goal is to expand diabetes education programs into the Brampton and Etobicoke South Asian community, including the Post Gestational Diabetes Prevention Program, and to hire more staff that speak South Asian languages.

Abstract:

The incidence of diabetes is increasing in Canada and more emphasis on prevention is needed especially in populations at increased risk of developing diabetes. Women from the South Asian community with a history of gestational diabetes are at high risk. The research proves that a healthy lifestyle that incorporates healthy eating, regular exercise, moderate weight reduction, no smoking and stress reduction can prevent diabetes. There is little research that explains how to promote a healthy lifestyle to prevent diabetes, especially in ethnic communities. The purpose of this research project was to assess the needs of women with a history of gestational diabetes in the Brampton and Etobicoke South Asian community to help in planning community-based programs and writing funding proposals. Those women (N=15) who consented to participate in this study were asked for their ideas, opinions and suggestions of how diabetes prevention programs can expand into the South Asian community. Analysis of the results indicated there was a need for such programs. Recommendations were made for a Women's Clinic in both the Brampton and Etobicoke Diabetes Education Centre at the William Osler Health Centre; for a community-based diabetes prevention program in the Brampton and Etobicoke South Asian community; for collaboration with the television and radio media for a diabetes education component in some of their programs; for the establishment of an advisory committee to build partnerships with community leaders, citizens, private industry and all level of government; for the development of more multi-cultural resources and programs; and for funding proposals to support these initiatives in an effort to prevent diabetes in high risk populations.

Introduction:

The purpose of this research project was to assess the needs of women in the Brampton and Etobicoke South Asian community with a history of gestational diabetes, to help in the planning of community-based diabetes prevention programs and the writing of funding proposals to support these initiatives.

The objectives were first, to invite women in the Brampton and Etobicoke South Asian community who participated in the Post Gestational Diabetes Prevention Program to participate in a needs assessment (a focus group or phone interview) and secondly, to create recommendations based on the results of this needs assessment in order to help people planning community-based programs and writing funding proposals. This introduction describes the substantial increase in the prevalence of diabetes in recent years with emphasis on prevention and explains the results of the Post Gestational Diabetes Prevention Program evaluation.

The importance of diabetes prevention is highlighted by a substantial increase in the prevalence of diabetes in recent years. If the increase in the prevalence of diabetes follows current trends healthcare costs for people with diabetes in Canada will increase by 75% within the next 10 years. What is not well recognized is that a similar trend is occurring with regards to gestational diabetes, its prevalence has been increasing at a rate of 12% over the past 8 years. Effective measures to prevent diabetes especially in women with a history of gestational diabetes could therefore have a significant impact on healthcare costs *(Houlden, 2004; Ohinmaa et al, 2004; Dabelea et al, 2005).*

The Post Gestational Diabetes Prevention Program was a multi-centred program at the William Osler Health Centre. The Diabetes Education Centre at the Peel Memorial Hospital (Brampton) and Etobicoke General Hospital (Etobicoke) offered this

program. In the last 3 years 1200 women with gestational diabetes were seen at both locations and 120 of these women attended the Post Gestational Diabetes Prevention Program. Each Diabetes Education Centre employed a dietitian and nurse to teach the 2-hour program. The purpose of this program was to target women in the community who had been diagnosed with gestational diabetes or impaired glucose tolerance in pregnancy to prevent (or delay) the development of diabetes through a healthy lifestyle.

In 2005, the Post Gestational Diabetes Prevention Program was evaluated at both hospitals by using quantitative research methods to identify its benefits to clients and to determine its effectiveness. The control group consisted of a random sample of women diagnosed with gestational diabetes or impaired glucose tolerance in pregnancy who attended a gestational class only. The intensive group included all those who participated in a gestational class plus the Post Gestational Diabetes Prevention Program. The results in Table 1 (see Appendices) of the survey indicated that both groups were similar demographically as the majority of women were South Asian and 30-39 years of age. They had some family support; an average of 1-2 children; a husband who worked; and most had decided to stay home from paid work for one year to take care of their newborn. The majority had no history of gestational diabetes; had to take insulin during their pregnancy; had a better awareness of their increased risk of developing diabetes later in life; reported that their doctor had not checked their blood glucose levels between 6 weeks and 6 months postpartum as recommended; and reported a history of diabetes in their family *(Fiala & Pelletier, 2005, October)*.

However, the results in Table 1 (see Appendices) showed that women who participated in the Post Gestational Diabetes Prevention Program (intensive group)

were more successful in reaching their healthy lifestyle goals as they were better able to make healthy eating and exercise goals; to identify their barriers for success; to reach a healthy weight; to commit to a focus group and to realize more resources were needed in the community to improve the program and help them meet their goals. Thus the program was successful at helping women meet their healthy lifestyle goals *(Fiala & Pelletier, 2005, October)*.

Only 10% of the women who attended a gestational class at either Diabetes Education Centre participated in the Post Gestational Diabetes Prevention Program. Some of the reasons given for not participating were that the time and day was not convenient; they had no way of getting to the diabetes education centre; there was no one to take care of their children; they were too busy and the language of instruction was English even though the community had a large South Asian population. *(Fiala & Pelletier, 2005, October).* A needs assessment would have to be done first in order to plan diabetes prevention programs that encouraged more women in the Brampton and Etobicoke South Asian community to participate. Women from this community who attended the Post Gestational Diabetes Prevention Program (N=64) at either hospital were invited to participate in a focus group or phone interview.

The financial burden of diabetes and its complications on people with the disease and the Canadian healthcare system is enormous *(CDA, 2004)*. While the treatment of the disease is important, the focus has started to shift to prevention. The research shows that diabetes (Type 2) can be prevented or delayed through a healthy lifestyle *(ADA, 1999; ADA, 2002; Lindstrom et al, 2003).* These results give optimism that similar effects might be achievable in the gestational diabetes population.

The Post Gestational Diabetes Prevention Program Evaluation results obtained in 2005 *(Fiala & Pelletier, 2005, October)*, indicated that women with a history of gestational diabetes who are at high risk for developing diabetes do benefit from follow up after having their baby to set healthy lifestyle goals. However women in the South Asian community were not participating in this program. The challenge was to examine how the Diabetes Education Centres in Brampton and Etobicoke might increase their participation. It was determined that a needs assessment would provide the necessary information and so this was the impetus for this research study.

Literature Review:

Diabetes Prevention

The changing face of diabetes in Canada is so evident today as more than two million Canadians have diabetes and by the end of the decade, this number is expected to increase to three million. Approximately 90% of people with diabetes have Type 2. The personal costs of diabetes may include a reduced quality of life and the increased likelihood of complications such as heart disease, stroke, kidney disease, blindness and amputation. Diabetes is a contributing factor in the deaths of approximately 41,500 Canadians each year. The financial burden of diabetes and its complications on people with the disease and on the Canadian healthcare system is enormous. The onset of type 2 diabetes may be prevented (or delayed), through increased physical activity, healthy eating, weight reduction, not smoking and stress reduction *(CDA, 2004)*.

The findings from clinical trials in both the United States *(ADA, 1999; ADA, 2002)* and Finland (Tuomilehto et al, 2001; *Lindstrom et al, 2003; ADA, 2003*) provide strong evidence that an active lifestyle, healthy eating and moderate weight reduction can prevent or delay the development of diabetes (Type 2) by 58% in subjects with impaired glucose tolerance. Individuals were instructed to increase their activity level gradually with a goal of at least 30 min of walking 5 days per week; practice healthy eating strategies while reducing their intake of fats and calories to promote a moderate weight reduction by (5-7%) of their initial weight; avoid excessive alcohol intake; stop smoking; and reduce stress *(Abuissa et al, 2005)*.

The research suggests that even though lifestyle changes and treatment with medication both reduced the incidence of diabetes in persons at high risk, lifestyle

interventions were more effective than medication in preventing diabetes *(Knowler et al, 2002).* Insulin resistance is the major underlying cause of diabetes (Type 2) and weight reduction through a healthy lifestyle can reduce insulin resistance and prevent diabetes *(Ferrannini et al, 2004).*

Helping people make lifestyle changes to reduce weight, eat healthy and exercise regularly is difficult. Standard weight reduction diets simply do not work when used alone. An intensive lifestyle modification program that includes healthy eating practices, regular exercise goals, education and support through frequent contact with healthcare providers is recommended for lifelong success *(Bantle, 2004).*

Gestational Diabetes

Gestational diabetes is defined as any degree of glucose intolerance with onset or first recognition during pregnancy. Approximately 5-7% of all pregnancies are complicated by gestational diabetes. Screening is done at 24-28 weeks gestation using a glucose tolerance test. Prompt diagnosis and treatment is important as it carries several risks to both mother and infant. For example, infants born to mothers with gestational diabetes may be macrosomic (severely obese). This poses a risk of trauma to both mother and baby during the delivery. These babies have a high risk of hypoglycemia after birth – a dangerously low blood glucose level – as well as severe breathing problems. They are also at higher risk for potential long-term obesity and glucose intolerance *(ADA, 2004).*

Diabetes prevention research in the gestational diabetes population indicates that the incidence of diabetes increases markedly in the first 5 years after delivery and appears to plateau after 10 years. Impaired beta-cell function and marked insulin

resistance are associated with the development of diabetes in this high-risk population. Gestational diabetes can be considered a transient unmasking of an underlying predisposition to diabetes. The significant independent predictors of developing diabetes after gestational diabetes are: age; ethnicity; family history of diabetes; obesity; high fasting glucose levels; severity of glucose intolerance requiring insulin; and frequency of gestational diabetes *(Damm et al, 1992; Metzger et al, 1993; Coustan et al, 1993; Damm et al, 1998; Peters et al, 1996; Wein et al, 1997; Pallardo et al, 1999; Kim et al, 2002; Schaefer-Graf et al, 2002; Verma et al, 2002; Linne et al, 2003; Cheung & Byth, 2003; Lauenborg et al, 2004; Kale et al, 2004; Konarzewska & Wojcikowski, 2004; Jarvela et al, 2006).*

A diabetes prevention program for women with a history of gestational diabetes, that promotes lifestyle change to reach and maintain a healthy weight, through healthy eating *(recommends reducing fat intake; controlling portion sizes; eating 3 balanced meals and healthy snacks; and eating meals at consistent times)* and regular physical activity *(recommends engaging in 30-45 minutes of moderate physical activity, 3-5 days per week, using a gradual progression)* should be implemented in primary healthcare. This type of program has been shown to prevent postpartum weight retention and is therefore important in the prevention of diabetes in these women *(Henry & Beischer, 1991; Beischer et al, 1997; ADA, 1999; Tuomilehto et al, 2001; ADA, 2002; Knowler et al, 2002; ADA, 2003; Lindstrom et al, 2003; CDA-CPGEC, 2003; O'Toole et al, 2003; Klein et al, 2004;Steyn et al, 2004)*.

The evidence suggests that although women are concerned about diabetes, 54% claimed that they had no idea that they were at increased risk of developing diabetes

(Linne et al, 2002). One study (*Stage et al, 2004)* showed that only a small percentage of women (<25%) modified their lifestyle and/or reduced weight after pregnancy. Another study (*Smith et al, 2005)* found that only 33% of women incorporated physical activity into their daily routine. Walking was the preferred form of physical activity and time was the major barrier.

Barriers

Some of the barriers identified with healthy eating and physical activity adherence in individuals with diabetes are (1) complications with lifestyle/competing demands (2) denial/perception that diabetes is not serious (3) poor understanding of the diet/disease relationship (4) lack of self-efficacy and (5) misinformation from unreliable sources. The leading barrier was complications with lifestyle/competing demands, and the majority reported time constraints as the greatest contributing factor *(Dalewitz et al, 2000; Williamson et al, 2000, Galasso et al, 2005*). One study explored individuals' perceptions of barriers to diabetes education. The most commonly cited concerns were poor vision, reading problems, age, educational level and socioeconomic status *(Rhee et al, 2005).* The effectiveness of any treatment regimen depends on two factors: the efficacy of the regimen used and the rate of adherence to the regimen. Therefore consideration must be given to both the efficacy of various regimens and to strategies for improving adherence to these regimens. The efficacy of healthy eating and exercise in preventing diabetes has been supported by research but it is important to note the strategies for improving adherence. Behavioural techniques such as self-monitoring, goal setting and contracting have been found to promote adherence to treatment regimens along with extended supervision and social support *(Wing, 1985).*

Prevention interventions in women with a history of gestational diabetes are complicated by: time and energy constraints; perceived risk of developing diabetes as not serious; misunderstanding the healthy eating/disease prevention relationship; lacking self-efficacy; and being misinformed by physicians, family and friends. Without adequate follow-up blood glucose levels are not checked and women believe everything is normal. The dedication of the follow-up team (doctor, nurse, dietitian) and a postnatal Oral Glucose Tolerance Test is an important factor in compliance. The 2003 Clinical Practice Guidelines in Canada recommend that women who had gestational diabetes should be screened for diabetes or impaired glucose tolerance within 6 months of delivery with a 2 hour 75g Oral Glucose Tolerance Test or a fasting blood glucose (*Beischer et al, 1997; Linne et al, 2002; Aberg et al, 2002; CDA-CPGEC, 2003).*

Even though women may be concerned about developing diabetes, the number of women who changed their lifestyle and/or reduced weight after pregnancy is limited. A frequent and intensive program that combines goal setting, supportive feedback and active problem solving strategies along with healthy eating and regular physical activity that promotes weight reduction needs to be provided in the period immediately after pregnancy in these women. Further blood glucose screening, follow up and education is necessary to prevent (or delay) diabetes. Research should be directed at identifying the barriers that may be unique to the postpartum period as well as a means to overcome these barriers *(Henry & Beischer, 1991; Phipps et al, 2001; Kim et al, 2002; O'Toole et al, 2003; Stage et al, 2004).*

Gender, Ethnicity and Culture

Women live diverse and busy lives. One constant for almost all women is too little time. Most women juggle many roles and duties. They usually are the primary care giver, often working outside of the home and taking courses to further their careers. The problem of women in a patriarchal society is not simple but rather complicated and so can't be easily eradicated. Making time for diabetes care or prevention in a women's busy life can be a real challenge. Gender-based health determinants such as culture, ethnicity, education, socioeconomic status, working conditions and coping skills need to be factored into healthcare policies, practices and programs that are specifically designed for women *(ADA, 2002; ADA & DC, 2004; Oakley, 1980).*

Women must take the initiative to develop these healthcare policies, practices and programs. Women learning about their own development can promote change. Knowing oneself, accepting oneself, connecting with others, changing perspectives, empowering oneself and seeking growth and development are ways women develop through learning which leads to change. Most women learners do find and fashion their voice so that they can be heard *(Belenky et al, 1986; Marienau, 1995).* Women learn about their own development and social structures but need a connection between the two and that is where 'Poststructural Feminist Pedagogies' fit as its agenda is social change and emancipation *(Tisdell, 1998).*

There is a growing and disproportionate burden of diabetes being experienced in North America especially in ethnic minority groups like Native Indians, Hispanics, Africans, Asians and South Asians. Diabetes tends to affect women, older adults,

people in urban areas and those of low socioeconomic status at higher rates. Rethinking diabetes prevention in racial and ethnic communities is necessary if health outcomes are to improve (*Liburd & Vinicor, 2003*).

The success of any diabetes prevention program in minority racial and ethnic communities can be attributed, in large part, to active community involvement. Community support is critical for the success and acceptability of health promotion or prevention programs in minority groups *(Davachi et al, 2005).* Other strategies to be used by diabetes educators in planning community-based programs include:

1. recognize and understand cultural differences
2. educate and support individuals until they can self-manage their disease
3. open lines of communication
4. use communication methods, teaching materials or tools and provider staff that are culturally, literacy and age sensitive
5. explore with individuals and assess their attitudes toward diabetes, their role in the family, beliefs about health, perceived barriers to health, available resources and self-management goals
6. assess an individual's attitude about health prevention
7. be positive and encouraging
8. early detection of dissimilar perceptions held by individuals and healthcare provider concerning prevention and treatment will reduce anxiety
9. make learning participatory
10. establish respect and trust
11. when necessary use trained interpreters

12. work in partnership with community leaders
13. disseminate information through the media (ethnic radio, television and newspapers and cultural leaders)
14. provide information that is most pertinent to individuals
15. bring learning out into the community to the libraries, Temples, Mosques, and community centers

(Carr, 1992; Brown, 2003; Montague et al, 2005). Successful community-based programs recognize and understand cultural differences, open lines of communication, make learning participatory and work in partnership with community leaders and individuals to determine their needs and then design programs to meet these needs on an ongoing basis.

Community-based Program

Public health research and practices must address the social production of disease; broaden the boundaries of how risk and causation are understood and articulated; and establish health models that reflect the changing complexion and dynamics of communities. Community-based programs engage members of the community in the design and implementation of the program; are grounded in indigenous community structures and practices; address health care policies and procedures; and encourage individual's attention to their own diabetes care or prevention. Emphasis on setting up social conditions that promote health must occur at the same time. To prevent diabetes, women with a history of gestational diabetes, must collaborate with business, government, academics and community leaders to create

community-based programs that meet community needs *(Stringer, 1996; Polonsky et al, 2005).*

If community-based programs are to become self-sufficient then participants must become self-directed learners. There is a need to promote the use of learning contracts to ensure that learning goals and objectives have been identified. It is important to help learners identify and utilize a variety of resources. The potential for networking needs to be fully understood. There is a continuing need to help educators better understand the impact they can have on learner self-direction. It is important to be cognisant of cultural differences that may influence the impact and perceived value of self-direction among learners from different cultures. There is a need to help facilitators learn how to foster self-direction with groups as well as with individuals *(Brockett & Hiemsha, 1991).*

The fact that the prevalence of diabetes is increasing even in the gestational diabetes population can't be ignored. There is strong evidence in the literature that healthy eating and regular physical activity can prevent (or delay) the development of diabetes in women with a history of gestational diabetes as these interventions promote a healthy lifestyle. Women struggle with lifestyle change postpartum primarily because of time constraints. An intensive program that provides support and self-directed learning is required if these women are to be successful in overcoming their barriers. A community-based program that promotes diabetes prevention should be developed based on the needs of the community. It was the strong evidence in the literature that diabetes prevention programs have been successful, even in women with a history of gestational diabetes that prompted this current research project.

Research Methods:

Two focus groups (N=4) and individual phone interviews (N=11) were used to assess the needs of women in the Brampton and Etobicoke South Asian community. The sample was drawn from those women who participated in the Post Gestational Diabetes Prevention Program evaluation at the Brampton and Etobicoke Diabetes Education Centre whose ethnicity was South Asian (N=64). Women were invited to participate in either a focus group or an individual phone interview. Some were not reached due to wrong numbers or they were out of the country visiting family (N=21). Others stated they were not interested in participating for various reasons (N=28). Many said that they were very busy and had no time (N=15). Some felt that because their blood glucose levels were normal there was no reason to participate (N=10). Others required childcare and/or transportation, which made them unavailable (N=3).

In planning for the focus groups and individual phone interviews, a combination of questions, both open-ended and closed-ended, were developed (see Appendices) to collect the information required, in assessing the needs of these women. Each focus group was about 1 hour in duration; designed to encourage discussion; and recorded when practical; otherwise a research assistant was there to observe and take notes. The principal investigator was the moderator for each focus group. The agenda for each focus group consisted of: welcome, introductions, purpose of the focus group, explanation of consent form (see Appendices), outline the format of the focus group; ask questions and record answers; and then wrap up. Each session was held in a classroom with everyone sitting around a table for informal discussion. The Diabetes Education Centre was closed to all other programs or services so the women had

privacy and were not rushed. Each individual phone interview took about 30 minutes; designed to encourage discussion; scheduled ahead of time so that each participant was able to answer the questions without being rushed. The agenda for each interview included: introductions; purpose of the interview; address confidentiality (see Appendices); explain the format of the interview; ask questions and record answers and then wrap up. The same questions were asked in both the focus groups and the individual phone interviews.

The crucial benefit of a focus group is the interaction between participants, which elicits information about their views, the language used about an issue and their values and beliefs about a situation. The benefits of a focus group to participants should never be underestimated. There is an opportunity to be involved in the decision making process; to be valued as an expert; and to be given the chance to work collaboratively with researchers. This can be very empowering for many participants and they can become a forum for change.

As with all research methods there are limitations to using focus groups. The researcher or moderator has less control over the data produced; it may be difficult to clearly identify an individual message as participants are speaking in a specific context within a certain culture; focus groups can be difficult to assemble; and the method of discussion may also discourage some people from trusting others with sensitive or personal information. In such cases, individual interviews alongside focus groups are a more suitable approach. While focus groups can help to explore several perspectives about the same topic, it is limited in terms of its ability to generalize findings to a whole population, mainly because of the small numbers of people participating and the

likelihood that the participants will not be a representative sample. *(Gibbs, 1997; McNamara, 1999).*

Interviews are particularly useful for getting in-depth information about a person's experiences, opinions and impressions around a specific topic. Basically it is a method to obtain answers to specific questions. The interview is beneficial because a full range and depth of information can be obtained; a relationship develops between the interviewer and the participant; and there is more flexibility, especially with respect to the scheduling of the interview. Interviews have their limitations, they can take a long time to complete so its important to stay on topic; be hard to analyze and compare; be costly as takes more time to interview as compared to those in a group; and interviewers can bias client's responses to the questions (*McNamara, 1999).*

Women either participated in a focus group (N=4) or an individual phone interview (N=11). They were asked to answer a variety of questions that would provide the information required to assess the needs of women in the South Asian community with a history of gestational diabetes at high risk for developing diabetes later in life. Both research methods have their benefits and limitations, while the focus group allowed for group dynamics it also deterred individuals who felt uncomfortable sharing their opinions, views and suggestions with other women. At least the phone interview gave these women another opportunity to participate in the study. However, the small sample size limits the researcher's ability to generalize findings to the general population.

Results:

The content of the responses of all 15 participants was analyzed to obtain data needed to make recommendations on how to expand the Post Gestational Diabetes Prevention Program to meet the needs of women in the South Asian community with a history of gestational diabetes to prevent (or delay) diabetes. All 28 questions (see Appendices) were divided into four categories. Questions 1-7 were designed to obtain information on the best days, times, frequency, location and services required (babysitting and transportation) to make the program more convenient. The questions from 8-14 asked for feedback on their learning experience, behaviour change, barriers, family support and ideas. Questions 15-21 focused on the multicultural and multilingual aspects of the program. Questions 22-28 examined the programs, classes, activities and resources in the community that are used or need to be added so these women are successful in reaching their healthy eating and exercise goals.

The dominant key phrases extrapolated from the responses to the questions are summarized in Table 2 (see Appendices) along with the associated responses (N). The results were examined question by question as follows:

What is the best day of the week to offer the program? The majority of women (N=10) felt that Saturday would be the best day of the week to offer the program, while the other participants (N=5) felt that Friday would be more convenient.

What is a convenient time for you to attend the program? Most of the participants (N=7) stated the morning is the most convenient time to attend the program. While the others felt the afternoon (N=4) or the evening (N=4) was more convenient.

How often in a year would you like to meet as a group? Everyone (N=15) agreed that they would like to meet at least once per year as a group.

Which location would you prefer in the community? Most of the women (N=7) preferred a location in the community – such as a community centre, library, community health centre, etc especially if there was free parking. Some preferred the Temple (N=4) or Mosque (N=1) and others felt that the Diabetes Education Center was a good location (N=3).

Would you require any babysitting services? The majority of participants (N=12) stated that they had family and friends who could take care of their children. While only a few (N=3) said that they would require babysitting services. The sample of women who participated in the focus groups may have skewed the results toward people who could find babysitting but not everyone who was interviewed over the phone had childcare needs.

Is transportation something that prevents you from attending? The response from most women (N=13) was that transportation was not something that prevented them from attending programs in the community as they had access to a car or ride. Only a few (N=2) were dependent on public transit. The sample of women who participated in the focus groups may have skewed the results toward people who could find transportation but not everyone who was interviewed over the phone had transportation needs.

Can you suggest ways to make the program more convenient? Many (N=6) agreed that a variety of locations for programs be offered in the community while a few (N=2) suggested that the program be offered as part of a clinic in the Diabetes Education Centre. Some (N=3) thought that the time and day should be suitable for the entire family while others (N=4) had no further suggestions.

Summary of Responses (Questions 1 – 7): Saturday morning or Friday evening seemed to be the best times to offer programs in the community. Everyone agreed that meeting once a year was adequate but wanted to attend a follow up appointment in the

Diabetes Education Centre 3-6 months postpartum. Various locations were suggested in the community especially those with free parking and access to public transportation. Babysitting and transportation were not a problem for the majority of women.

What was the most important thing you learned from the program? The majority of women (N=12) thought that healthy eating was the most important thing they learned from the program. However some (N=3) learned more from the discussion about exercise.

Have you made any changes to your eating habits? All participants stated that they had made changes to their eating habits after attending the program. Most (N=9) had reduced their portion sizes; many (N=3) were eating more balanced meals; some (N=2) had increased their fibre intake and reduced their sugar intake; and a few (N=1) made an effort to eat less fried food.

Do you exercise more now than before you took the program? While healthy eating is an important component of diabetes prevention often exercise is ignored as people can survive without exercise but everyone has to eat. The majority of women (N=10) said that they are exercising more now than before the program. Walking was the most popular exercise as it is the most convenient and easiest to fit into a busy lifestyle. A few (N=5) found that the program just reinforced the importance of exercise as they were already walking or going to the gym.

What are some barriers that prevent you from eating healthy? Without a doubt the barrier that prevents most women from eating healthy is time (N=12) along with culture (N=1), motivation (N=1) and support (N=1). Women are often so busy with working and having to take care of their family that they neither have the time nor energy to eat healthy.

Do you have enough time to exercise? While the majority of women (N=12) were aware of the benefits of exercise they felt that often they don't have the time. Only

a few (N=3) said that they have the time to exercise regularly by going to the gym or for a walk

Does your husband support your changes? Many of those women (N=12) who responded to this question reported that their husband as well as other family members do support their changes. Only three women said that their husband was very busy at work and was not able to support them even if he wanted too and that there were no other family members to go to for support.

Is there anything else you want to say about the program? Everyone had something to say about the program and suggested ways to improve or expand it into the South Asian community. The majority of women (N=9) enjoyed the program and hoped that it would continue. Some (N=2) thought the program should be family focused rather than just designed for women as the entire family would benefit from healthy eating and exercise. Others suggested a cultural foods component (N=1), a walking program (N=1), access to more information and resources in the community (N=1) and an emphasis on the importance of diabetes prevention (N=1) in the South Asian community which is at greater risk.

Summary of Responses (Questions 8 – 14): While both healthy eating and regular exercise are important in diabetes prevention, women wanted to learn more about healthy eating. They had made many lifestyle changes especially consuming smaller portions. Most were motivated to exercise and enjoyed walking. The primary barrier to both healthy eating and exercise was time even though their husbands and other family members were supportive. It was suggested that programs be more family focused as everyone could benefit from healthy eating and regular exercise.

Would it be beneficial if the program were offered in another language? Many of the participants (N=10) were able to communicate in English so thought that there was no benefit to them if the program were offered in another language. Only a few (N=5) felt that it would be beneficial if the program were offered in another

language, as English was not their first language of choice even though they could communicate in English. This sample is probably skewed toward people comfortable in English as others would not be as interested in participating in the research project. However everyone was given the option of a focus group or interview in Punjabi or Hindi.

Which one(s)? The most popular languages suggested were Hindi and Punjabi (N=10) while some were more fluent in Punjabi (N=5) only. It was evident that the program should be offered in Hindi and/or Punjabi.

Where the print materials helpful? Everyone (N=15) found the print materials to be very helpful.

Why were the print materials helpful? The print materials were very informative (N=9), clear and understandable (N=3) and useful (N=3).

How can they be improved? There were a few suggestions of how the print materials could be improved. Many (N=6) felt that the Diabetes Education Centre should continue to develop a variety of print materials, the content of the print materials should be more family focused (N=5) and it is important to incorporate multicultural information (N=4) especially about healthy eating and exercise.

Would different languages help? The majority (N=10) felt that print materials offered in different languages would not be helpful while a few (N=5) felt that Punjabi and Hindi would be helpful.

Do you have any other ideas? Many (N=8) liked the program and felt that women should continue to have the opportunity to be followed up in the Diabetes Education Centre 3-6 months postpartum at a clinic where they could see the doctor, nurse, dietitian and social worker on the same day. It was suggested by a couple of women that the program access various forms of media (television, radio, newspapers) as a means of bringing diabetes education into the community. Others suggested that multicultural aspects be incorporated into the program

(N=1), that a fundraiser be organized to support diabetes programs and resources (N=1), that the program include all family members (N=1), that diabetes prevention should be a large part of the program (N=1) and that more information on meal planning is needed (N=1).

Summary of Responses (Questions 15 – 21): Offering the program in English worked well for those who participated in the study but the program must cater to the needs of the community so some programs should be offered in Hindi or Punjabi. The print materials were very informative but a minority of respondents thought that the Diabetes Education Centre should develop these in different languages based on the needs of the multicultural community. The feedback suggests that the Post Gestational Diabetes Prevention Program should continue to be offered as a follow up program in the Diabetes Education Centre. The women also suggested that family focused programs be offered in various community facilities once a year to promote diabetes prevention.

Do you feel there are exercise programs you can access in the community? Most (N=12) of the participants felt that there were no exercise programs they could access in the community as walking was the preferred form of exercise. Only a few (N=3) had gone to the gym.

Would a support group for women be beneficial? All the women (N=15) felt that a support group would not be beneficial. They said that women in the South Asian community find it difficult to share their problems with others outside of the family unit so they would not participate in a support group.

What about cooking classes? They all (N=15) thought it would be a great idea to have cooking classes in which low fat cooking techniques and ways to incorporate ethnic foods into healthy eating could be taught.

Would grocery store tours be helpful? It was unanimous (N=15) that grocery store tours would not be helpful as women in the South Asian community usually shop in small ethnic grocery stores and not the large chain stores.

What resources in the community have you found useful? All the women had found various resources in the community very useful. Many liked the programs in the South Asian community (N=4) or the Diabetes Education Centre (N=4). Others used the library (N=3), attended an ESL class (N=1), went to the gym (N=1), and found the media (N=1) or Internet (N=1) to be useful resources.

Are any other resources needed in the community? Many of the women (N=12) agreed that more resources were needed in the South Asian community to educate people on healthy eating and exercise for diabetes prevention, while a few (N=3) felt that there were enough resources in the community.

How can we help you be successful in reaching your goals? There were many suggestions of ways in which the Diabetes Education Centre could help women in the South Asian community reach their goals. Many (N=6) wanted continued support and more resources. Some (N=4) suggested that pamphlets be put in doctor's offices. Others (N=2) wanted to learn more about healthy eating and hoped that the program would continue (N=2). One woman suggested that more print materials and programs on the television or radio would bring diabetes education not only into the South Asian community but right into their homes. This would make it more convenient especially for those women who reported time was a major barrier due to their busy lifestyle.

Summary of Responses (Questions 22 – 28): Walking was the most popular form of exercise performed by these women and they felt that walking program should be offered in the community. There was very little interest in support groups and grocery store tours but cooking classes was a very popular activity. They could be used on location or on television to education the community about healthy eating. While the

women want the Diabetes Education Centre program to continue, there was definitely a need to expand or design more programs out in the community. It was suggested that the media (television, radio, newspapers) be used to provide more resources, support and information on diabetes prevention and that a spokes person for diabetes from the South Asian community be selected to help spread the message.

The results of the study indicated that women in the South Asian community felt that while a follow up visit to the Diabetes Education Centre after their baby is important, an annual community-based diabetes prevention program was also necessary which would include the entire family. Saturday morning or Friday evening seemed to be the best times to offer programs in the community and various locations were suggested. While both healthy eating and regular exercise are important in diabetes prevention, women wanted to learn more about healthy eating. Offering the programs and resources not only in English but also Hindi and Punjabi would better meet the needs of the South Asian community. The primary barrier that prevented women from successfully reaching their healthy lifestyle goals was time. Partnering with South Asian media, television and radio, is one way to expand diabetes education programs into the community. Increased access would make it more convenient for women and perhaps time would no longer be such a barrier to success.

Discussion:

Overall, the results of this study provided valuable information in assessing the needs of women in the Brampton and Etobicoke South Asian community with a history of gestational diabetes at high risk for developing diabetes. The results of the focus groups and interviews were used to make recommendations for those planning community-based programs and writing funding proposals.

Everyone wanted to be able to attend a follow up appointment in the Diabetes Education Centre 3-6 months postpartum to speak with the nurse and dietitian about their healthy lifestyle goals and to see the doctor to confirm that their blood glucose levels were normal. It was interesting to note that all the women strongly felt that a diabetes prevention program should be offered in the community at least once a year for the entire family as everyone could benefit from healthy eating and regular exercise. Saturday was the best time to offer such a program probably because this is when families get together in the community. The South Asian community is very strong and closed knit so it is important that South Asian diabetes educators present these programs out in the community. Babysitting and transportation were not a problem for the majority of women in this study but the results could have been skewed due to the small sample size so this would have to be reevaluated on an as needed basis.

While both healthy eating and regular exercise are important in diabetes prevention, these women wanted to learn more about healthy eating. They were very motivated to exercise and enjoyed walking but felt that healthy eating was more of a challenge. Everyone has to eat but we can survive a day without exercise. Some struggled with eating balanced meals, limiting portion sizes, reducing the high fat

content of their ethnic cuisine and routinely consuming meals and snacks. The primary barrier for both healthy eating and exercise was time even though their husbands and other family members were supportive. Women are very busy taking care of their family, often working and many, especially in the newly immigrant South Asian community, are often taking courses to either learn English or upgrade their skills or knowledge to improve their job opportunities.

Offering the program in English worked well for those who participated in the study but the results may have been skewed as those where English is their second language did not participate. A variety of programs in English, Punjabi or Hindi should be offered in the community or brought right into their homes via South Asian television, radio or newspapers. The community serviced by both the Brampton and Etobicoke Diabetes Education Centre is very multicultural and this means they must cater to the needs of the community when designing programs and print materials by offering them in other languages.

While the women felt that a diabetes prevention program is useful after having their baby, there was definitely a need to expand or design more programs out in the community. The follow up program only met the needs of the women in setting healthy lifestyle goals but community programs meant that their entire family would benefit. It was suggested that a spokes person for diabetes prevention from the South Asian community be selected to help spread the message.

While the sample size was small (N=15) the information obtained was valuable in assessing the needs of women in the Brampton and Etobicoke South Asian community and some recommendations were generated. It is very difficult to get people involved in

prevention programs because they believe, “It won’t happen to me”. I won’t get diabetes and if I do, I’ll deal with it then. This attitude may be one reason why only a small number of women consented to participate in this research project. Their response was, “What’s in it for me”. In order to allay such concerns it is necessary to use a variety of research methods to assess the needs of a community when developing community-based programs. As the programs offered by both the Brampton and Etobicoke Diabetes Education Centre expand into the South Asian community further needs assessments will be needed to design appropriate programs for all those living in this community.

Recommendations:

One of the objectives of this research project was to make recommendations based on the needs of women in the Brampton and Etobicoke South Asian community who are at increased risk of developing diabetes, in order to help those planning community-based programs and writing funding proposals. Six recommendations have been made based on the results of the focus groups and phone interviews.

The recommendations are as follows:

1. Plan and implement a follow up program for women with a history of gestational diabetes from the South Asian community, seen in either the Brampton or Etobicoke Diabetes Education Centre at William Osler Health Centre. Women would be followed up 3-6 months postpartum, to see the nurse, dietitian, endocrinologist and social worker in a clinic setting all on the same day. The doctor would be able to order any laboratory tests required at that time.
2. Both the Peel Memorial Hospital (Brampton) and Etobicoke General Hospital (Etobicoke) Diabetes Education Centre plan and implement a community-based diabetes prevention program that focuses on the family, at least once a year to capture these women who are at high risk of developing diabetes. The best time for such a program would be Friday evening or Saturday morning. Possible community facilities include Temples, Mosques, libraries, Community Centres and Community Health Centres, as there is usually free parking and often access to public transportation. The program content should continue to promote healthy eating and exercise but perhaps a cooking class and walking program could be incorporated. Include activities for children that reinforce the healthy

eating and exercise message. South Asian staff must be hired so that the Diabetes Education Centre can offer these programs in Punjabi, Hindi or English.

3. Collaborate with the many South Asian television and radio programs already in existence to add a diabetes education component. A celebrity or well-known person in the South Asian community should become a spokesperson for diabetes prevention. There are many South Asian newspapers as well that can be used to market programs, share recipes and disseminate information. This is one way to bring diabetes education into the South Asian community and homes to make it easier and more convenient to practice a healthy lifestyle.
4. Develop more print materials on diabetes prevention in various languages like Hindi and Punjabi. They should incorporate multicultural information, such as ways to include ethnic foods into healthy eating. One suggestion was to make these print materials available in doctors' offices. These print materials would have to be written and translated into Punjabi and Hindi. Why not partner with pharmaceutical companies that develop diabetes products and medications to fund the translation of these resources. A resource list of pamphlets, handouts, booklets, etc already published and available in the community could also be made available.
5. Partner with community leaders, the media, private industry, citizens, diabetes educators (dietitians / nurses), endocrinologists, hospital management and government at all levels to develop successful community-based programs. An advisory committee, which includes representatives from all these areas should

be created to meet 2-3 times annually to plan, implement and evaluate programs and services in the community.

6. Write funding proposal requests for a community-based diabetes prevention program in the Brampton and Etobicoke South Asian community; for the hiring of more staff who speak a variety of South Asian languages especially Punjabi and Hindi; for the establishment of a Diabetes Prevention Clinic at both of the Diabetes Education Centres in Brampton and Etobicoke and for translation of print materials by private industry or government agencies. The focus should be on developing diabetes prevention community-based programs in partnership with funding from private industry and all levels of government.

Conclusion:

The purpose of this research project was to assess the needs of women with a history of gestational diabetes mellitus in the South Asian community to help with planning community-based programs and writing funding proposals. This study has been successful in meeting its objectives and has shown the importance of assessing the needs of the community in program planning

This research project has been the Brampton and Etobicoke Diabetes Education Centre's initial step towards expanding programs into the South Asian community. The staff at the Brampton and Etobicoke Diabetes Education Centre hopes to develop future partnerships with community leaders, citizens, private industry and all levels of government in meeting the needs of this community and promoting diabetes prevention and wellness. The recommendations will be shared with those planning community-based programs and writing funding proposals, as there is a need for more programs in diabetes education in the South Asian community.

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Appendices:

Table 1: Summary of Evaluation: Post Gestational Diabetes Prevention Program (N=200)

Results	N=200	EGH #	PGDPP %	PMH #	PGDPP %	EGH #	GDM %	PMH #	GDM %
Ethnicity	Black	9	18	6	9	4	8	6	19
	Caucasian	8	16	24	34	12	24	12	38
	S Asian	33	66	31	47	34	68	12	38
	Other	0	0	7	10	0	0	2	5
Age	20-29	15	30	13	19	12	24	6	19
	30-39	30	60	50	74	36	72	24	76
	40-49	5	10	5	7	2	4	2	5
Family Support	Yes	34	68	25	37	25	50	10	30
	No	16	32	43	63	25	50	22	70
Children	1	24	48	26	38	20	40	14	43
	2	19	38	39	58	24	48	12	37
	3	5	10	3	4	6	12	4	12
	4	2	4	0	0	0	0	2	8
Husband Works	Yes	50	100	68	100	50	100	32	100
	No	0	0	0	0	0	0	0	0
Client Works	Yes	6	12	0	0	8	16	4	12
	No	44	88	68	100	42	84	28	88
History of GDM	1	48	96	48	70	43	86	28	88
	2	2	4	20	30	5	10	4	12
	3	0	0	0	0	2	4	0	0
Insulin Needed	Yes	23	46	40	60	22	44	28	88
	No	27	54	28	40	28	56	4	12
Aware of Risk	Yes	50	100	68	100	39	78	30	94
	No	0	0	0	0	11	22	2	6
OGTT Done	Yes	19	38	34	50	31	62	18	56
	No	31	62	34	50	19	38	14	44
History of Diabetes	Yes	23	46	46	68	30	60	18	56
	No	27	54	22	32	20	40	14	44
Healthy Eating									
Portions	Yes	41	82	52	76	40	80	28	88
	No	9	18	16	24	10	20	4	12
Balance	Yes	33	66	55	80	36	72	32	100
	No	17	34	13	20	14	28	0	0
Reduce fat	Yes	42	84	28	40	38	76	30	94
	No	8	16	41	60	12	24	2	6
4-6 hrs	Yes	33	66	34	50	41	82	26	81
	No	17	34	34	50	9	16	6	19

Results	N=200	EGH #	PGDPP %	PMH #	PGDPP %	EGH #	GDM %	PMH #	GDM %
Barrier									
	Culture	15	30	35	52	5	10	0	0
	Habit	3	6	13	19	5	10	0	0
	Time	20	40	11	16	12	24	12	37
	None	12	24	9	13	28	28	20	63
Exercise									
3x/wk	Yes	29	58	25	37	28	56	20	63
	No	21	42	43	63	22	44	12	37
Type	Walk	50	100	68	100	48	96	22	70
	Other	0	0	0	0	2	4	10	30
20 min	Yes	36	72	36	53	27	54	20	63
	No	14	28	32	47	23	46	12	37
Goal	Start	7	14	19	28	15	30	10	30
	Increase	43	86	35	51	21	42	2	6
	None	0	0	0	0	14	28	18	58
	Continue	0	0	14	21	0	0	2	6
Barrier									
	Health	1	2	0	0	0	0	0	0
	Time	28	56	54	79	25	50	14	44
	None	21	42	14	21	25	50	18	56
Healthy	Yes	33	66	33	50	19	38	12	37
Weight	No	17	34	35	50	31	62	20	63
Attended	Yes	50	100	68	100	0	0	0	0
PGDPP	No	0	0	0	0	50	100	32	100
PGDPP	Yes	50	100	68	100	35	70	32	100
Helpful	No	0	0	0	0	15	30	0	0
Interested	Yes	41	82	68	100	30	60	12	37
Focus group	No	9	18	0	0	20	40	20	63
Community									
Resources	Food	1	2	4	6	2	4	2	6
	Exercise	12	24	7	10	7	14	2	6
	Support	21	42	34	50	11	22	2	6
	None	16	32	23	34	30	60	26	82

(Fiala & Pelletier, 2005, October)

Table 2: Summary of Responses: Questionnaire (N=15)

1.	**What is the best day of the week to offer the program?**	***Response (N)***
	…I feel the weekend is the best day of the week	*10*
	…I find weekdays are more convenient	*5*
2.	**What is a convenient time for you to attend the program?**	
	…It is definitely the morning	*7*
	…The best time for me is the afternoon	*4*
	…The evening is convenient for me	*4*
3.	**How often in a year would you like to meet as a group?**	
	…At least once per year	*15*
4.	**Which location would you prefer in the community?**	
	…I go to the Temple on weekends	*4*
	…I would like a location in the community with free parking	*7*
	…I go to the Mosque on Friday evenings	*1*
	…I thought the DEC was a good location	*3*
5.	**Would you require any babysitting services?**	
	…No I have family and friends to take care of my children	*12*
	…Yes I would require babysitting services	*3*
6.	**Is transportation something that prevents your from attending?**	
	…No I can drive to the program	*13*
	…Yes I have to use public transit	*2*
7.	**Can you suggest ways to make the program more convenient?**	
	…I feel the time and day should be suitable for the entire family	*3*
	…I suggest the program be offered as part of a clinic in the DEC	*2*
	…I think a variety of locations be offered in the community	*6*
	…I have no further suggestions	*4*

8.	**What was the most important thing you learned from the program?**	
	…I liked the discussion about healthy eating	*12*
	…I liked the talk about exercise	*3*
9.	**Have you made any changes to your eating habits?**	
	…I have increased the fibre and reduced the sugar	*2*
	…I am eating smaller portions	*9*
	…I plan more balanced meals	*3*
	…I am not eating as much fried foods	*1*
10.	**Do you exercise more now than before you took the program?**	
	…Yes I started walking	*10*
	…No I was walking before the program	*5*
11.	**What are some barriers that prevent you from eating healthy?**	
	…Time is definitely a major barrier as very busy with family	*12*
	…Cultural foods are often high in fat as fried	*1*
	…Motivation is a big barrier for me	*1*
	…There is no family support with meal preparation	*1*
12.	**Do you have enough time to exercise?**	
	…I try to make enough time to exercise but hard sometimes	*12*
	…I like to go to the gym for 1 hour daily	*3*
13.	**Does your husband support your changes?**	
	…Yes and my family also helps	*12*
	…No and I have no other family to support me	*3*
14.	**Is there anything else you want to say about the program?**	
	…I suggest include cultural foods in healthy eating	*1*
	…I would like a walking program	*1*
	…I would like more information and resources	*1*
	…I think the program should be family focused	*2*
	…I enjoyed the program and hope it continues	*9*

	…I think diabetes prevention is important	*1*
15.	**Would it be beneficial if the program were offered in another language?**	
	…Yes it would be beneficial to me as I am learning English	*5*
	…No English is ok for me but it would be beneficial for others	*10*
16.	**Which one(s)?**	
	…I think Hindi and Punjabi is a good start	*10*
	…I prefer Punjabi	*5*
17.	**Where the print materials helpful?**	
	…I found the print materials to be a good resource	*15*
18.	**Why or why not?**	
	…I thought they were clear and understandable	*3*
	…I found the materials to be very informative	*9*
	…I think they were useful	*3*
19.	**How can they be improved?**	
	…I think you should continue to develop a variety of print materials	*6*
	…The program print materials should be more family focused	*5*
	…I feel a need to incorporate multicultural information	*4*
20.	**Would different languages help?**	
	…No I can read English print materials	*10*
	…Yes Punjabi or Hindi would be helpful	*5*
21.	**Do you have any other ideas?**	
	…Include the multicultural aspects of healthy eating and exercise	*1*
	…I would like the community to do a fundraiser	*1*
	…The program should access various media in the community	*2*
	…I think the program should be more family focused	*1*
	…Diabetes prevention should be part of community programs	*1*
	…I would like more information on meal planning	*1*
	…No I like the program and have no other ideas	*8*

22.	**Do you feel there are exercise programs you can access in the community?**	
	…I have not accessed any exercise programs in the community	*12*
	…Yes I have gone to the gym	*3*
23.	**Would a support group for women be beneficial?**	
	…No, a support group for women would not be beneficial	*15*
24.	**What about cooking classes?**	
	…I would like to learn how to incorporate low fat ethnic foods	*15*
25.	**Would grocery store tours be helpful?**	
	…No as women in the South Asian community usually shop in small ethnic grocery stores	*15*
26.	**What resources in the community have you found useful?**	
	…I have found ESL classes very useful	*1*
	…I have used just the programs in the South Asian community	*4*
	…I have only used the gym and don't go anymore	*1*
	…I have used books in the library	*3*
	…Just the ones offered in the DEC	*4*
	…I have found South Asian TV programs and newspapers useful	*1*
	…I have used the internet	*1*
27.	**Are any other resources needed in the community?**	
	…Yes I think programs should be for the entire family	*12*
	…No the South Asian community has many resources	*3*
28.	**How can we help you be successful in reaching your goals?**	
	…I feel the program should provide information and support	*6*
	…I think pamphlets need to be put in doctor's offices	*4*
	…I would like to learn more about nutrition / healthy eating	*2*
	…I hope the program continues	*2*
	…I like print materials and programs on TV / radio	*1*

Focus Group and Interview Questions

1. What is the best day of the week to offer the program?
2. What is a convenient time for you to attend the program?
3. How often in a year would you like to meet as a group?
4. Which location would you prefer in the community?
5. Would you require any babysitting services?
6. Is transportation something that prevents your from attending?
7. Can you suggest ways to make the program more convenient?

8. What was the most important thing you learned from the program?
9. Have you made any changes to your eating habits?
10. Do you exercise more now than before you took the program?
11. What are some barriers that prevent you from eating healthy?
12. Do you have enough time to exercise?
13. Does your husband support your changes?
14. Is there anything else you want to say about the program?

15. Would it be beneficial if the program were offered in another language?
16. Which one(s)?
17. Where the print materials helpful?
18. Why or why not?
19. How can they be improved?

20. Would different languages help?
21. Do you have any other ideas?

22. Do you feel there are exercise programs you can access in the community?
23. Would a support group for women be beneficial?
24. What about cooking classes?
25. Would grocery store tours be helpful?
26. What resources in the community have you found useful?
27. Are any other resources needed in the community?
28. How can we help you be successful in reaching your goals?

Name: _____Date: _____

Letter of Consent

The purpose of the focus group is to obtain your feedback and comments to help us understand how to improve the Post Gestational Diabetes Prevention Program to better meet the needs of women in the South Asian community. Women with a history of gestational diabetes are at increased risk of developing diabetes. The research shows that healthy eating and regular activity can prevent or delay diabetes. How can the Post Gestational Diabetes Prevention Program be improved to help you practice a healthy lifestyle to prevent or delay diabetes?

Judy Fiala, a dietitian in the Diabetes Education Centre and graduate student at Athabasca University, is conducting a research project entitled, "*Community-based programs: The importance of assessing the needs of the community in program planning."* This research project will be used as partial requirement to obtain a Master of Arts degree in Adult Education**.**

Your participation is voluntary and you have the right to withdraw at any time or not to answer any questions. However participating in the discussion will provide us with the feedback and information we need to improve the program. Your decision to participate or not to participate will not limit access to current or future services in the Diabetes Education Centre.

Discussion around specific questions will be recorded and transcribed later. Your answers will be confidential. In order to protect your privacy, all data will be recorded and coded to ensure participants are not identified. Only the principal investigator and research assistant involved in the focus groups will have access to the data, which will be locked in a cabinet. The ethics committees at both Athabasca University and William Osler Health Centre have approved of the project.

The focus group will take about 1 hour and will be offered at various locations, times and days of the week for your convenience. This is an opportunity for you to express

your ideas, share your needs, support other women and contribute to program development.

The final research report will be published and made available through the Athabasca University online library and presented to other diabetes educators at future conferences.

Do you have any questions? For more information contact Judy Fiala at 416-747-3400 ext 32532 or research supervisor, Cathy Bray at 1-780-675-6792.

(My signature below means that I have read or had explained to me what is expected of my taking part in the research, and I understand what will be happening in the focus group. I know that I may ask for further information, and that I may refuse to answer certain questions or may stop my participation at any time. I understand that if I choose to stop my participation, it will not affect any current or future services that I might be entitled to receive from the William Osler Health Centre, Diabetes Education Centres at the Etobicoke General Hospital and Peel Memorial Hospital)

_____	_____
Judy Fiala, RD, CDE, MA(c)	Participant
Principal Investigator	Consent

Consent Form

- Hello, this is _____(caller's name) from the Diabetes Education Centre at _____ (Etobicoke General Hospital or Peel Memorial Hospital) inviting you to participate in a phone interview. On a recent survey you indicated that you might be interested in participating.
- The purpose of the phone interview is to obtain your feedback and comments to help us understand how to improve the Post Gestational Diabetes Prevention Program to better meet the needs of women in the South Asian community. Women with a history of gestational diabetes are at increased risk of developing diabetes. The research shows that healthy eating and regular activity can prevent or delay diabetes. How can the Post Gestational Diabetes Prevention Program be improved to help you practice a healthy lifestyle to prevent or delay diabetes?
- Judy Fiala, a dietitian in the Diabetes Education Centre and graduate student at Athabasca University, is conducting a research project entitled, "*Community-based programs: The importance of assessing the needs of the community in program planning."* This research project will be used as partial requirement to obtain a Master of Arts degree in Adult Education**.**
- Your participation is voluntary and you have the right to withdraw at any time or not to answer any questions. However participating in the discussion will provide us with the feedback and information we need to improve the program. Your decision to participate or not to participate will not limit access to current or future services in the Diabetes Education Centre.
- Discussion around specific questions will be recorded on a questionnaire. Your answers will be confidential. In order to protect your privacy, all data will be recorded and coded to ensure participants are not identified. Only the principal investigator and research assistant involved in the study will have access to the data, which will be locked in a cabinet. The ethics committees at Athabasca University and William Osler Health Centre have approved the project.

- The phone interview will take 30 minutes. This is an opportunity for you to express your ideas, share your needs, support other women and contribute to program development.
- The final research report will be published and made available through the Athabasca University online library and presented to other diabetes educators at future conferences.
- Do you have any questions? For more information contact Judy Fiala at 416-747-3400 ext 32532 or research supervisor, Cathy Bray at 1-780-675-6792.
- Are you willing to continue your participation by scheduling a time for phone interview?

(My agreement to answer questions means that I had explained to me what is expected of my taking part in the research, and I understand what will be happening in the interview. I know that I may ask for further information, and that I may refuse to answer certain questions or may stop my participation at any time. I understand that if I choose to stop my participation, it will not affect any current or future services that I might be entitled to receive from the William Osler Health Centre, Diabetes Education Centres at the Etobicoke General Hospital and Peel Memorial Hospital)

_____

Judy Fiala, RD, CDE, MA(c)
Principal Investigator