Urban Reality of Type 2 Diabetes among First Nations of Eastern Ontario: Western Science and Indigenous Perceptions\(^1\)

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**ABSTRACT:** This paper presents an anthropological investigation of perception and management of Type 2 Diabetes among First Nations people in an Eastern Ontario urban setting. Applying the concept of structural violence and based on the semi-structured interviews conducted with urban First Nations people and health care professionals, findings of this study reflect that diabetes is entangled in a complex web of social and cultural circumstances that make the coping and management of this disease very challenging for today’s First Nations people. Results also document the shared social, cultural and historical circumstances which have contributed to the emergence of diabetes among First Nations people. Diabetes in this regard can be viewed as a reflection of economic and social conditions, but also low self-esteem and self-worth arising from a colonial past. These perspectives have repercussions for reaction to diabetes diagnosis and coping strategies around diet, physical activity and medication. Existing levels of diabetes management strategies, including treatment, support and education meet the urban First Nation peoples’ need to some extent. The paper concludes with the recommendations for development of future health and social programmes that engage stakeholders and pay considerable attention to their strengths and needs.

**Introduction**

The urban Canadian landscape continues to change due to the shifting nature of its population composition. Several push and pull factors trigger within and outside of the country population migration, which is again to a great extent a reflection of federal and provincial policies regarding

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health, education, settlement and employment. For Canadian Aboriginal Peoples, the census data reveal that there has been a dramatic change in the proportion of people living in urban centres from 6.7% in 1951 to 54% in 2006. Today, First Nations people account for 50% of urban Canadian Aboriginal Peoples (Statistics Canada, 2008). It is projected that this trend of urbanization will continue to increase (Newhouse & Peters, 2003). Again in Ontario 62 per cent of the Aboriginal population live in urban areas (Ontario Ministry of Aboriginal Affairs, 2012). In many instances, First Nations people arrive in cities with diverse history, culture, realities, identities, hopes and aspirations to contribute in urban life. The majority of programs and services available in cities, however, are unable to meet their diverse needs (Peters, 2002; 2006). Over the last several decades, urbanization along with continued colonization and marginalization has exposed the First Nations people to a broad range of contextual stressors that have contributed to the increasing susceptibility to adverse health events, their spirit and capacities (Peters, 2006; Reading, Kmetic & Giddion, 2007; Smylie, 2009). Understanding these contextual stressors from peoples’ narratives is very important for health and social service providers; and their applications in a service delivery context is a major and much needed task and, at the same time, a health provision challenge.

Since the early 1970s, diabetes has been recognized as an emerging serious health problem among many Aboriginal communities. Literature states that Aboriginal Peoples are considered as one of the ‘high risk’ population groups as they are at increased risk of developing Type 2 diabetes (Young, 1994; Haffner, 1998; Champlain LHIN, 2009). Aboriginal Peoples are mostly affected by Type 2 Diabetes Mellitus (T2DM) or Non-Insulin-Dependent Diabetes Mellitus (NIDDM) (Public Health Agency of Canada [PHAC], 2011; Public Health Agency of Canada [PHAC], 2005). Findings from the Aboriginal Peoples Survey II (APS II) also reveal that diabetes among the non-reserve Aboriginal population is most prevalent among First Nations people (Statistics Canada, 2004). There is also evidence that genetics predispose in the pathogenesis of diabetes (Zegginni & McCarthy, 2007; Patti et al., 2003; Haffner, 1998; Szathmary, 1987).

An emerging body of research from anthropology and allied health sciences, however, has demonstrated that the differential prevalence and incidence of diabetes across the population groups correlate with the socio-economic status of the affected people (Lieberman, 2003; Zimmet, Albert & Shaw, 2001). It is the socio-economically marginalized people, who are inequitably affected by diabetes within the developed nations (Raphael et al., 2011). Most of these health inequalities result in health inequities that are systematic, unjust, unfair and preventable (Braveman & Gruskin, 2003; Whitehead, 1991). For example, immediate or proximal biological risk factors responsible for the onset of diabetes can emerge from the practice of consumption of high fat diets, reduced physical activities and increased stress, factors which seem to result from increased urbanization and broader structural inequalities among socio-economically marginalized Aboriginal Peoples (Leiberman, 2003; Raphael et al., 2003; Rock, 2003). Consequently, researchers such as Raphael et al., (2003) and Rock (2003), among many others, critique diabetes

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2 Throughout this paper wherever collective reference is necessary I use the term ‘Aboriginal People’ except when referring to other authors’ work.
3 2006 census report has most recent data on Aboriginal population.
4 First Nation people are one of the three constitutionally recognized Aboriginal population groups in Canada. Métis and Inuit people are the two other Aboriginal population groups in Canada. This study, however is restricted in First Nation people only.
research for solely emphasizing genetic variation as an explanation of diabetes epidemic and for overlooking the consideration of the nature and type of structural issues that mediate biological risk factors for diabetes.

In this paper I explore peoples’ narratives surrounding diabetes and its consequences to consider how diabetes achieved social significance among First Nation people in a particular geographical setting, such as in Small Town, eastern Ontario⁶. Based on existing literature and lived experiences gathered through semi-structured interviews this paper offers an anthropological investigation of the antecedents and consequences of Type 2 Diabetes. This investigation goes beyond the medical model of diabetes and argues that diabetes emerged as a consequence of numerous changes in urban First Nations peoples’ lives, resulting from colonialism and assimilation policies. Contemporary structural and economic inequalities along with historical contingencies continue to influence the increasing prevalence of diabetes in this urban population group. Based on data gathered from my Masters research on explanatory models of diabetes among urban First Nation people, I argue for the idea that increasingly prevalent chronic diseases such as diabetes that originate and propagate in social inequalities may appear as a reflection of continued socio-economic sufferings of First Nations people. Narratives indicate that participants may use diabetes to communicate the damage inflicted by colonialism. At the same time, these narratives provide enough impetus for rethinking diabetes prevention strategies among First Nation people despite many preventative initiatives being put in place. The essence of these narrative discussions finally calls for health and social programmes to heal the damage caused by colonization and perpetuation of First Nation peoples’ lived experiences.

An Overview of Diabetes

Diabetes mellitus in bio-medical science is generally regarded as an endocrine disease resulting from a deficiency or absence of insulin, characterized by hyperglycemia and possible long-term complications (Health Canada, 2001). There are three main types of Diabetes:

*Type 1 diabetes mellitus (T1DM)* is caused by the body’s inability to make insulin⁷, either making too little or none resulting in a higher concentration of glucose in the blood.

*Type 2 diabetes mellitus (T2DM)* is characterized by hyperglycemia resulting from a deficiency of insulin. As a result of this, the level of glucose in the blood becomes elevated and results in a condition commonly known as high blood sugar where the body makes insulin but cannot use it effectively (nine out of ten people with diabetes have type 2 diabetes).

*Noninsulin dependent diabetes mellitus (NIDDM)* is another name for Type 2 Diabetes mellitus.

*Gestational diabetes mellitus (GDM)* is a form of diabetes that can develop during pregnancy, when the body is not able to properly use insulin. Although GDM usually goes away following childbirth, both mother and child remain at increased risk of developing Type 2 diabetes in the future (Health Canada, 2007).

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⁶ Small Town, Ontario is the pseudonym of the place where I conducted my interviews
⁷ Insulin is a hormone which controls the amount of sugar in the blood
It has been recognized that Type 2 diabetes is caused by a combination of multiple, interlinked and complex risk factors. In bio-medical science, risk factors for this health complication have been largely classified into modifiable and non-modifiable risk factors. Modifiable risk factors are those that can be controlled to reduce risk of developing Type 2 diabetes. These include lack of physical activity, unhealthy weight, unhealthy diet and smoking. Non-modifiable risk factors are those that cannot be reduced or acted upon, such as age, genetic predisposition, ethnicity, family history, etc. (Millar & Dean, 2012; PHAC, 2011). A review based study by Ghosh and Gomes (2011) classified socio-economic and political marginalization, legacy of colonization, access to health care, etc. as intermediate risk factors of Type 2 diabetes, particularly for Aboriginal Peoples; these factors are modifiable to some extent. Ghosh and Gomes (2011) also developed an etiology-based classification of ‘direct’ and ‘indirect’ risk factors of Type 2 diabetes, which focuses on psychosocial imbalances, hereditary predisposition, physiological disturbances, etc. The common comorbidities and complications of Type 2 diabetes include hypertension, dyslipidemia, and microvascular disease resulting in end-organ damage to the kidneys, eyes, peripheral nerves, and heart. It is well elaborated in the literature that Type 2 diabetes is a multifactorial disease (PHAC, 2011). Thus, adopting a holistic approach is needed to address the multiple and complex risk factors to prevent and alleviate Type 2 diabetes and its complications (PHAC, 2011, Ghosh & Gomes, 2011).

Interview Process: Questions Posed

Findings of this paper emerge from the author’s Masters research in anthropology. The research location was an Eastern Ontario urban setting among local First Nations peoples. Fieldwork was completed during the period of March-May, 2004. Twenty urban First Nations people voluntarily participated in this research. They include eight First Nations diabetes patients and, twelve First Nations community members who are not diagnosed with diabetes but are familiar with diabetes as a family member, friend, or community member. One of the patients was an Elder as well as a traditional healer. All of the eight diabetes patients have Type 2 Diabetes. They have been diagnosed with Type 2 Diabetes over a period of one to twenty-eight years. In addition eight key informant interviews with professionals were also conducted. They include front-line service providers, health care providers; one researcher who regularly provides services and interacts with urban First Nations people. Tables 1 and 2 provide a summary of information on participants interviewed for the research.

This research project received ethics approval for data collection from the Research Ethics Board (REB) of Carleton University, Canada. Considerable time and effort was invested to develop meaningful engagement with local Aboriginal community organizations, research organizations and educational institutions. The recruitment of community participants was planned in a way that best answers the research objectives, such as consultation with researchers and program coordinators from Aboriginal organizations in and around the study locality, including cross referral, presentations at various locations and circulation of a letter of introduction within the supporting organization’s networks. The lay interviewees or urban First Nation community participants including clients and staff members from three local Aboriginal organizations and a community college however participated in this research on a voluntary basis. Key informants were

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8Throughout this paper Type 2 Diabetes and Diabetes are used interchangeably.
contacted and recruited directly by the researcher. In order to protect identity and maintain anonymity, pseudonyms were used for every participant. The objective of capturing such a wide range of participants was to get a broader view of diabetes perceptions from different categories of participants. For example, to understand the community perspectives, emphasis was put towards gathering the perspectives of Aboriginal organizations that had been actively working with the Aboriginal Peoples. The insights drawn from their practical experiences of working with the people provided key inputs to the study.

All interviews were conducted at mutually convenient but closed-door locations while priority was given to the participants’ choice. Interview locations ranged from participant’s home to Native Friendship Centre, health centres, Aboriginal organizations, and a community college. Interview questions were structured as loosely as possible to have a relaxed conversation. The interview guide was developed based on the literature and my interests in explanatory models of diabetes causation (Hunt, 1998; Kleinman 1988; Loewe & Freeman, 2000). A semi-structured interview guide for First Nation community members and a slightly modified one for the health care professionals were developed to ensure general consistency across interviews as well to capture diversities in understandings within and across participant groups. During the interviews, however, issues raised in earlier interviews were formulated as questions for subsequent interviewees, but I avoided probing questions unless it was absolutely necessary. This gave me the opportunity to elicit stories from lay participants or particularly significant cases from professionals. The respondents were not requested to provide any direct demographic information except for questions about their age and duration of residence in urban settings. Information on other basic characteristics such as economic condition, source of income, etc. was assessed indirectly from some of their answers. The semi-structured interview method followed in this study provided the opportunity for the interchange of views between researcher and the participant in a flexible manner on a topic of mutual interest. Here interviews provide an avenue for the participants to get involved in the research and talk about their perceptions and interpretation of their life experiences in regards to a given situation. The interchange was meaningful both ways since their lived experiences that I was privileged to hear from them may not have had the opportunity to be shared otherwise (Mattingly & Lawlor, 2000). At the end of each interview, the participants were asked if they had anything else to add to the discussion. This gave me an opportunity for their additional input if there was a topic that they thought had been missed. All but one of the interviews were audio-taped with the informed consent of both parties and transcribed for analysis.

**Qualitative Analysis and a Framework for understanding Diabetes**

The conceptual framework that was developed has helped to analyze and understand the diabetes experience among urban First Nations people. During the course of formal or informal conversations, the respondents brought up a number of issues that were integrated under several broader themes. The key themes associated with T2DM in this urban community were the connection between colonialism, abuse, poverty and food insecurity and the onset of diabetes as a result of what Gaultung (1980) and Farmer (2005; 1999) called structural violence within their everyday lives. I applied the concept of structural violence, which is widely used in medical anthropology, in contrast to pre-existing assumptions of bio-medical science which approaches “sickness as a natural phenomenon” (Gordon, 1988, p. 24). In this approach, the socio-economic and political contexts in which someone lives are “critical determinants of their health status” (Singer, 2009, p. 144). Farmer (2004) explained that structural violence refers to social structures
that are “characterized by poverty and steep grades of social inequality,” which systematically limit one’s life choices and chances, and is embodied in “adverse outcomes… [such as] death, injury, [and] illness” (p. 307-308). In order to understand the role played by structural violence in diabetes incidence and prevalence, it is necessary to address intersecting structural determinants, such as socio-economic conditions, cultural background, and the political environment of diabetes that work on multiple levels.

In examining the results of semi-structured interviews, themes were analyzed to determine where diabetes fits into the life experiences of interviewees of different ages, some with diabetes and others without. At the analytical phase, the goal was to identify areas of similarity in perceptions as well as gaps and misconceptions of patients with those of professionals. Some analysis was also devoted to various means for the delivery of diabetes education, prevention treatment initiatives, and how these meet the needs and perceptions identified by the interviewees. A particular focus was placed on what First Nations people thought had contributed to their diabetes and how are they coping or managing with the disease.

**A Conceptual Framework for Understanding the Diabetes Experience**

The conceptual framework is enriched with the diverse theoretical perspectives not discussed here but well elaborated in Ghosh (2004). This framework explores how colonization as identified by research participants has impacted generations of Aboriginal Peoples through its discriminatory policies and practices that resulted in poverty, food insecurity, homelessness, addiction, and violence, which has its bearing on the incidence of chronic diseases, such as diabetes. This framework also helps us to understand the major social, cultural and historical processes that put the First Nations people at risk of becoming chronically ill. It also helps us understand the coping mechanisms and disease management among the populations. Considering diabetes only as a lifestyle related health complication may mask the fact that these causal factors as identified by the participants do not exist in isolation but are situated within the broader context of marginalization and oppression perpetuated by unequal power relations between the larger Canadian system and Aboriginal Peoples. It is therefore critical to contextualize why and how people are engaged in lifestyles that are detrimental to their health, what motivates them to seek medical care, or how they are coping with the disease and managing life situations. For instance, research participants identified several of these factors including, the legacy of residential schools, and associated separation from their families; subsequent loss of parenting skills and traditional knowledge of food preparation. These combined with continued marginalization have contributed to their current dietary practices; which again have significantly contributed to their present health condition. Structural violence is another outcome of colonial policies and practices, which is enacted through political, social and economic structures that disregard values and beliefs of others. Marginalized communities such as urban First Nations people have faced cultural transitions, loss of language, loss of identity, pride and self-esteem. Participants’ comments revealed that the situation was far more complex in cities where they became victims of further marginalization due to the limited material resources that they lived with. Situations become further complicated because of the limited cultural supports in larger cities and a general lack of cultural sensitivities in the delivery of health and social services towards the overall wellbeing of urban First Nation people (Peters, 2002; Wilson & Rosenberg, 2002). When individuals or population groups are prevented from managing their desired livelihood, achieving their full potential, and when they encounter barriers to following disease prevention and management regiments due to discriminatory policies and limited
socio-economic resources, these individuals are then considered victims of structural violence (Gaultung, 1980; Farmer, 1999).

The anthropological approach pursued in this research to understanding the antecedents and consequences of diabetes among First Nations people is in concordance with the Aboriginal philosophy of health and sickness described by the medicine wheel. The Medicine wheel (see for example, Warry, 1998) symbolizes balance in emotional, spiritual, mental and physical well-being. If one quadrant is off balance (e.g., by diabetes), then the whole wheel is out of balance. This concept of the medicine wheel not only encompasses a holistic view of health and wellbeing, but also recognizes the articulation of the individual with the community through socio-cultural, economic and political wellbeing, and all of these with the much broader surroundings in order to achieve balance in life. This concept may be expanded to explore the renegotiation of self in the face of diabetes and again, at a community level, the renegotiation with numerous elements of contemporary Aboriginal life (socio-cultural, economic and political). Thus a healthy management of the disease can be achieved.

Peoples’ lived experiences were examined together with bio-medical, sociological, anthropological and historical literature available in the area of Aboriginal health with special reference to urban First Nations people. In order to get a comprehensive picture of the subject under investigation, I consulted several national surveys and government documents published by Statistics Canada, Health Canada, National Aboriginal Health Organization, the Department of Indian Affairs and Northern Development, and other government departments and Internet resources (O’Neil, 1986; Frideres, 1993; Canadian Medical Association [CMA], 1994; Royal Commission on Aboriginal Peoples [RCAP], 1996; Milloy, 1999).

**Understanding Diabetes: the Lived Experience**

A majority of the First Nations people that participated in this research had migrated to this urban setting from different parts of Canada; few were also born and raised in this locality. While talking to them, one of the most interesting things I found was that there were a number of remarkably similar themes (e.g., childhood disease experience; significant social, political and historical changes) regardless of age groups and peoples' original place of birth and residence. I did find diverse opinions surrounding lifestyle factors and issues of diabetes management among First Nations people with varying levels of formal education, employment status and the resources available for their everyday living. My objective for the interviews was to present the changing prevalence of type 2 diabetes in the context of peoples’ memories of culture, society and history. The stories of urban First Nation people particularly highlight how colonial socio-political structure promote acts of structural violence, including displacement of people, relocation of children, and discrimination. These acts are evidenced in the First Nation peoples’ limited access to affordable diet, physical activities, and culturally appropriate health services and the barriers they face to avail existing services. Based on the experiences of research participants, the following themes emerged. The conversations I had during the interviews are mostly presented here using direct quotes.
Changes in Aboriginal Lifestyle: Present and Past

The semi-structured interviews conducted in this research provided a greater depth of understanding about how the contemporary factors influenced the lifestyle patterns, such as dietary choices, physical activities and stress among contemporary urban First Nations people. Broadly speaking, on the one hand there are growing kinds of middle class professionals who are working in organizations and living in cities and raising their children in families that are not much unlike with those of urban mainstream middle class families. At the same time there are real substantial numbers of urban Aboriginal people who are very poor and live on very limited resources (RCAP, 1993; Native Women’s Association of Canada, 1995). I had the opportunity to interact with a group of First Nation people with varied socio-economic and educational backgrounds. The Royal Commission on Aboriginal Peoples (1993) revealed that Aboriginal Peoples have been and continue to be on the bottom rung of the economic ladder in Canada. The unemployment rate among Aboriginal Peoples is much higher, they earn less, depend more on welfare, and suffer more from extreme poverty compared to non-Aboriginal Canadians. When it comes to participation in community programs, participants shared that they cannot afford to participate in these community programs because of the cost of transportation, program schedules, distance and lack of information. This creates a web of factors that put these groups of people at the margin of information flows, which is again very detrimental to their health and wellbeing. For women, this situation becomes further complicated when as a mother and care giver they give priority to the health of their family, ignoring their own. This ultimately may result in increased stress, limited mobility, weight gain, etc. and, in turn, increased prevalence of diabetes among women as argued by Iwasaki and Bartlett (2006), who mentioned that “perhaps living in an urban setting may create an additional source of stress, unique to urban dwellers, compared to Aboriginal individuals who live in a non-urban (i.e., rural, on-reserve) setting” (p. 24).

Life was quite different in the past as it was painted in a participant’s recollection of her early days. Louise, a First Nation woman recalled that they were living off the land partially; it was half and half grocery store. People also talked about their residential school dietary experience, which indicates consumption of a higher concentration of carbohydrates (macaroni, potato, porridge, etc.). This is also partly indicative of higher incidences of diabetes among First Nation people. In the literature, emergence of diabetes is broadly linked to concomitant changes in lifestyle with special reference to diet and physical activity (Joe & Young, 1993; Narayan, 1997).

Discussions with participants who grew up in different places of this country but migrated to this city, also indicate that the story is much similar for them. While there is an association between lifestyle change and diabetes, there have been many other subsequent changes in the lives of Aboriginal people that have transformed these nomadic people into a sedentary community (Preston, 2000). Added to these are the legacies of the residential school that disconnected the traditions, language, and the pride and dignity of generations of people (Abonyi, 2001). Participants also talked about the ‘negative structuring of life-style’ that they feel had been imposed by the residential school system. They also mentioned the loss of parenting skills. They did not have the capability of sharing their traditional knowledge of leading a healthy lifestyle to their children. The residential school experience directly affected those who were educated through this system. Others were indirectly affected through the collective loss of parenting skills (Milloy, 1999). These changes undoubtedly play a role in the contemporary context of diabetes. The residential schooling system is only one part of displacement of all the oppressive relations that
Aboriginal Peoples had with the dominant power. There are other factors of changes, that are often considered as improvements in the quality of life, which have also contributed new challenges, such as type 2 diabetes. The following section makes an attempt to shed some light on those issues.

**Perceptions of Diabetes:**

An exploration of past and present determinants of First Nations peoples’ lifestyle certainly suggests reasons for the current increasing prevalence of type 2 diabetes both at the Western biomedical level as well as in First Nation peoples’ understandings. As discussed before, urban First Nation people do not necessarily share a common view with Western bio-medical explanation on the emergence of diabetes. Diabetes to urban First Nation people is the outcome of major social, cultural and historical processes that they have gone through over the generations. There are many interpretations of diabetes as a disease both at the lay and professional levels. In the context of the complexities of present day urban life, it is necessary to understand these varied perceptions of diabetes and their consequences.

**Why Do We Get Diabetes?**

At the outset I must say the people across different professional and community groups interviewed for this project were clearly aware that a lack of appropriate life opportunities might be involved in relation to the increasing prevalence of diabetes among First Nations people. There is more to the story, particularly from the perspectives of the diabetes patients and non-diabetic community members. Some people believe that fast food and store-bought foods may be implicated with diabetes, not only because they are calorie dense, but also because canned food contains many preservatives that have negative health effects. People also talked about other factors that may relate to diabetes such as the lack of physical activity, diet and obesity. In fact, the lack of physical activity, obesity and diet were most frequently mentioned altogether:

> In my case I think it is the eating habit, the type of food, being over weight…when I was diagnosed, I was quite overweight. So it is important being able to move around and burn off extra weight.

> In order to understand ‘why we get diabetes’ from the First Nation people’s perspectives, the following discussions are focused on socio-economic conditions and their impact on urban areas.

> ...it also could be the way I ate. Sometimes I crave sweets. When I have money, I go and buy some donuts… I do not care about diabetes…regardless…some days I feel happy next day I am back to my old self again…so I do what I want to do. I did not change anything.

The comments above are significant because in her case, she equates sweet consumption with poverty and depression and social isolation. These factors produce “vulnerability [which] is all about… context,” and it is “a process to be understood in terms of cumulative conditions” (Webb & Harinarayan, 1999). This vulnerability makes First Nation people structurally at risk to disease as these factors aggravate and compound one another, and weaken the capacity and resilience of individuals, families, and communities to cope and recover. This structural risk is a form of
structural violence due to its adverse impacts on one’s life chances and choices, and has very serious and cumulative health consequences.

Deep-rooted explanations beyond diet, physical activity and psycho-social stress are offered by the health care providers and front line workers, researcher and Aboriginal elders. Professionals point out that First Nation peoples’ limited access to basic needs such as diet and physical activities have been systematically and often violently refuted or represented insufficiently for maintaining their good health. Other factors such as cultural transitions, loss of language, lack of communication, loss of identity, pride and self-esteem have also contributed to the incidence and prevalence of diabetes among First Nation communities. Their comments also indicate that the situation is much more complex in cities. A front line worker says:

…when you are in city and you are in high school, it is hard world out there. There are lots of bullying and as Aboriginal teenagers have different body shapes… they think they are bigger, it is very difficult that affects their self-esteem, motivation and how they treat themselves, how do you love yourself… lots of teenagers do not have that, and they end up doing more harmful behaviours.

These afore-mentioned comments reflect the effects of history combined with contemporary compromised social determinants of diabetes.

Managing or Coping with Diabetes:

Coping with diabetes and its proper management is regulated by various individual level or community level factors. Medical professionals, care givers and non-diabetic community members are of the view that ultimate responsibility for control over diabetes and its management depends on the patient.

Lack of Dietary Choices:

Difficulties implementing and maintaining dietary changes surfaced in both the professional and lay experiences. “Exchanges and offering of food as gestures of hospitality are integral to the Aboriginal social fabric,” (Joos, 1984, p. 230) but we also know that foods available in social gatherings are not always the best choice to eat for a diabetes patient. A First Nation community member says:

…I cannot make ends meet till the end of the month to make sure I have foods…I am in a set income. So I have to manage everything out of that. I don’t know whether it is on the diet or not on the diet. I just cut down, that is all I do.

The above comment seems very similar to the comment of a medical doctor I interviewed.

…I have patients who have food security issues and diabetes. To me that’s a crime, so I can’t put them on certain medications and they are going to the food bank and you know…
Front line health workers and medical professionals also talked about alcoholism. Diabetes control is especially challenging for the people who are dealing with alcoholism. This is an important factor to address diabetes and its prevention among urban First Nations people, and which demands further exploration.

*Lack of Choices for Physical Activities:*

Traditionally, physical activities were an integral part of the everyday lifestyle for all Aboriginal Peoples. But changing lifestyle patterns in fast-paced urban centres leaves very little or no place to do physical work. Here the only option is to take part in routine physical activities. Physical activity is clearly recognized to be important both for weight control and as a means of reducing health risks by the First Nations people I interviewed. The big problem for many to partake in organized physical activities, as discussed in the previous section, is the restricted choices for physical activities. Even walking, which is increasing in popularity for everyone, regardless of age and sex, is burdened with all sorts of difficulties ranging from availability of safe outdoor walking area, difficulty in movement, and knowledge about appropriate physical activities. As one diabetes patient said, “I try to maintain healthy lifestyles … although it is not always possible with the hectic lifestyle. I exercise and take care of myself.” In the same line another participant said:

…right now, no physical activities, because I tore my ligaments in my knee two years ago… But before that I used to do my yard and planting, and I walked quite a lot but I can’t do that now because of my leg.

One medical professional explained:

…I mean for sure the ability to access the healthy exercise, like having the time and the financial resources for healthy physical recreation are also a problem.

By reviewing the literature and listening to the above discussion with lay and professionals, it is quite clear that the range of barriers both at the individual and community levels prevent First Nation people to manage or cope with the disease. Their narratives show how colonial stereotypes and structures continue to be perpetuated within the present socio-economic environment, and how this affects their lives and healthy choices surrounding diet and physical activities. It is also particularly difficult for women in family settings with a lot of dependents, and when they have a notion that family is much more important than the individual; then to separate one self out to have a special diet or exercise plan for diabetes would be most unrealistic.

*Lack of Treatment Choices:*

Almost all the diabetes patients of Small Town that participated in this research largely depend on biomedical treatment. Only one person said that she sometimes would go to the doctor for diabetes, but she thinks that the doctor’s advice does not help her to reduce her blood sugar level, so she relies on naturopathy. Interviewees, such as community members or non-diabetic First Nation people have also shown their primary reliance on biomedicine. The limited references to traditional medicine, however, do not necessarily indicate that many more Aboriginal people are not exploring traditional medicinal approaches. It may be that some people were reluctant to
discuss traditional medicines with outsiders, as reported in the Regional Health Planning Study (Kapashesit, 1997, cited in Abonyi, 2001), or, perhaps in my limited interviews I simply encountered people who have a primary reliance on western bio-medicine. Alternatively, people from the older age groups may primarily depend on western biomedicine because of its easy accessibility in urban settings. On the whole, people expressed various levels of interest in terms of seeking help from traditional medicine. As Warry (1998) points out, faith or beliefs in Aboriginal health systems are hardly uniform or universal in Aboriginal communities. The presence of the western biomedical regime as a treatment of choice among the urban First Nations people I interviewed is overwhelming. People, however did not express any definitive interest in the integration of western biomedicine and traditional medicine. At the professional level, however, people placed reliance on the integration of the two systems, in terms of their complementarities for the usages of some kind of medications, but they are not in terms of health systems. In this regard, health care professionals have also expressed concern about the difficulty of locating credible Elders in an urban setting. One health care practitioner said:

> Western medicine has some useful tools to offer… I share some tools like glycemic index… I mean some medications are useful…but again, I think there is certainly a role of bringing together Elders…

**Support Systems and Education Strategies:**

Diabetes is an everyday battle that needs a tremendous amount of care and support for its prevention and management. In my view, support systems currently in place in Small Town, Ontario meet the needs of Aboriginal Peoples to some extent. There is only one Aboriginal health centre situated in this city, which for different reasons (distance, hours of operation, lack of information about services, transportation, etc.) seems not always accessible for the people that participated in this study. On the other hand, the public health system is not geared to provide Aboriginal specific health care and support. This discrepancy arises due to the differences in perception between the First Nations community members and medical professionals.

The interaction with participants reflect that primary sources of general support for diabetes prevention and care are family and friends, while professional sources of support are regulated by a complex public health care system. It is understood that both health care professionals and First Nation people accept that the ultimate responsibility for diabetes care lies with the individual, but family plays a significant role in terms of diabetes management. During my interviews with representatives of these health care providers, I found that there are varied perspectives on health and experiences of diabetes.

Similar to any other Canadian cities, the one I examined has a range of health care professionals including medical doctors, nurses, dieticians, diabetes educators and health promotion workers who provide diabetes management, education and prevention strategies for patients. Persons who have developed diabetes or are at increased risk of developing diabetes ideally start getting their formal medical support from a physician’s clinic. A family physician mentioned that once diabetes is diagnosed she generally refers her Aboriginal patient to a dietician at the local Aboriginal health centre or at some other local centres of the patient’s convenience. Depending on the blood glucose level, the patient might as well be put onto oral medication or insulin. The doctor refers her patients to the local Aboriginal health centre diabetes group for
undertaking physical exercises and other relevant activities required to control or prevent diabetes. She found that most of the time Aboriginal patients do not keep up-to-date with their follow-up visits, therefore it is not possible for her to monitor their progress, and to support them in terms of any kind of life-style modification that might be needed to control diabetes and prevent its subsequent complications. From our conversation, I recognized that overall medical professionals are in agreement about the holistic philosophy of health. They also agree that seeking medical help or motivation to seek medical help depends on social, economic, and emotional circumstances of their lives. Health care professionals are aware that there are often more immediate pressing issues in their patients’ lives, such as housing, unemployment, food insecurity, substance abuse that may take priority over diabetes management. A registered nurse also echoed similar experience regarding follow-up sessions with her patients, but she recognized that these behaviors are rooted in the range of daily obstacles and challenges that her First Nation clients experience.

In regard to the diabetes education programs, both health care providers and front line workers agree that the education and prevention programs available in this city, apart from what is being provided in the Aboriginal health centre, are not well-designed for Aboriginal culture and their present social circumstances. The effectiveness of Western ways of teaching in different diabetes education workshops appeared to be a poor fit with the First Nation culture specific teaching style. In the same line, one front line health care provider said:

...you know Aboriginal people are very visual people. If you give them a book and ask them to read it about diabetes that would not be effective for them... if you say, ‘look this is a can of coke and this contains twelve tea spoons of sugar… then when your son comes home and he has got a big bottle of coke from Seven Eleven…and you know there are forty eight tea spoons of sugar’… this is more visual for Aboriginal people...

Some health care providers expressed their frustrations about the lack of appropriate teaching tools for Aboriginal patients. According to the professionals, Aboriginal ways of teaching are that Elders talk and others listen and observe, and there is a lot of role modeling and social reinforcement there. It is clear that there is room for incorporating culturally appropriate methods of teaching by community Aboriginal Elders or persons knowledgeable about Aboriginal culture, history and their views about health and wellness.

**Summary and Concluding Remarks**

Based on academic and grey literatures and most importantly the narratives from my interviews with urban First Nation people in Small Town, Ontario in this paper, I explore and explain the causes and consequences of diabetes as a lived experience. In this final section I would like to review some of my key findings, delimit areas of this research, and highlight some areas of future research and policy implications.

I set out to explore “Why are First Nation people contracting diabetes at a higher rate than the rest of the Canadians? How do First Nation People perceive the risk of contracting Type 2 Diabetes Mellitus? What are the characteristic ways in which they cope or manage the consequences of this disease?” The contribution I offer here is an exploration of diabetes as a human problem that is being shaped by various determinants of health (e.g., social, cultural, historical, economic, and
political, etc.) that present serious challenges for today’s First Nation people living in urban centres. The connection between the concept of structural violence and this research project is compelling. From peoples’ narratives we have seen the socio-economic, political and cultural circumstances within which First Nation people were born, grew, migrated and lived have negatively inflicted their dietary, physical activity and subsistence patterns. Much of that explains the development of biological risk factors of Type 2 diabetes and the consequent increase in diabetes incidence among First Nations people. The determining factors, causes and consequences of diabetes as revealed in this research are inseparable from the exhibits of structural violence in colonial history, resulting in cultural transitions, loss of language, identity, pride and self-esteem, stress and marginalization among First Nations people and their health condition today (Canadian Institute of Health Information [CIHI], 2004). The ultimate outcome of this cycle of marginalization and neglect was that the First Nation persons’ health and health of their families and communities were put at risk of developing chronic disease like diabetes.

First Nations people understand the emergence and causes of diabetes in a number of ways. The link between diabetes and westernized lifestyles revalue the health benefit of a traditional lifestyle. Diet is a particular concern among the community people, as well as among medical professionals. The explanation of unhealthy diets lies partially in the high cost and availability of appropriate foods. This issue is also supported by health care professionals who agree on the role of the economic burden of unemployment, poverty and food insecurity. The traditional modes of subsistence and food procurement are no longer feasible in this urban setting. Therefore it is suggested that the explanation is located in socio-cultural factors that include low self-esteem, lack of pride and dignity or frustration with poverty and issues such as those experienced in the contemporary context. But these behaviors can also be traced back to the isolation (reserves) and assimilation (residential schools) processes that First Nations people are still going through in the contemporary urban context. It is also true that the residential schooling system is but one part of displacement of all the harmful impacts resulting from colonialism and assimilation policies. It is very much in existence in the present day context where First Nations people face a harmful relationship with the broader social system that produces restricted lifestyle choices for them. In this regard, diabetes emerges along with poverty, food insecurity, lack of education, unemployment, and so many other socioeconomic factors that emerge as a challenge to these people in this urban setting. Not having sufficient material resources to lead a healthy life is not the fault of an individual family member, but rather a result of larger social, economic and political system characterized by inequities in which they were born, grow, eat and live. The outcome of all these is structural violence of food insecurity, unemployment, lack of education and resulting health consequences. Thus, much of the explanation for contemporary lifestyle patterns of these urban First Nations people can be located in socioeconomic conditions and in the demands of a western sedentary lifestyle.

Diet, physical activity and stress are the three immediate triggering factors identified by community members and medical professionals that work behind the emergence of diabetes. It is also brought to attention that women tend to carry an extra burden of stress, have fewer physical activities and have compromised healthy diets in this fast pace of city life. The difference begins early in childhood and continues through the childcare years. Women have fewer opportunities than men to pursue physical activities. Community activities are also limited for women because there are few activities that accommodate the presence of children. On the other hand, women are the ones who balance their families’ diet on a restricted budget, since a significant number of
Aboriginal families are living in substandard financial strata. All of these complex life situations place extra stress on them. All these three triggering lifestyle factors may suggest differential weight gain patterns among men and women, and perhaps account for increasing prevalence of diabetes among women.

On a general level, the people of this urban setting lead a diabetogenic lifestyle characterized by a higher concentration of fast food, canned food high in calories and a sedentary pattern of city life. This research also indicates the role of colonialism in creating contemporary conditions. Aboriginal people throughout Canada share a colonial experience that gives rise to the issues of lack of pride and dignity, low self-esteem and low self-worth among themselves. The residential school experiences have had a significant effect on the diet and other aspects of family. People commented on the lack of parenting skills and expressed frustration in terms of having limited culture-specific experiences to share with their children, which could in fact act as a protective factor against T2DM. In reality, these contextual factors serve as the backdrop of creating and propagating risk factors of chronic health conditions, such as diabetes for First Nations people living in urban Ontario areas (Browne & Varcoe, 2006; Browne, 2005). Persistent inequalities in health and social status are thus entrenched in the history of relations between First Nations people and the broader Canadian system of government (Adelson, 2005; Dion Stout, Kipling & Stout, 2001; Kelm, 1998). Continued struggle for their land claims, health provisions, Aboriginal self-government and economic development in many First Nations communities shape overall health and wellbeing. These, in turn, bring about a consecutive impact on the health status of First Nations people living in urban areas (Browne, McDonald, & Elliott, 2009).

Current levels of diabetes and management strategies, including treatment, support and education only partially meet the needs of urban First Nation people. This public health system is limited in its responses to provide Aboriginal culturally specific care and support. Structural factors including socio-economic and political conditions that impact on incidence and management of diabetes are largely beyond the control of First Nation individuals. While this situation is not that different than the case of other populations of low socioeconomic status living in urban areas, the notable difference between these populations is the apparent lack of culturally appropriate services, such as employment, education, health and housing services required to facilitate the transition from on-reserve conditions to urban settings (Peters, 2002; Kastes, 1993). This difference has been worsened by limited cultural supports in larger cities and a general lack of investigating the potential effects of cultural factors on urban Aboriginal Peoples’ overall wellbeing (Peters, 2002; Wilson & Rosenberg, 2002). There are also no structured connections to the psychological, social, cultural and economic sources of support that might help diabetics or pre-diabetics to deal with their disease in a more effective way. As discussed in various literature (Reading, 2009; RCAP, 1996) addressing the causes of the causes is necessary to improve many social determinants of diabetes including access to health services, education, employment and economic development, housing etc. Interventions that aim to improve these social determinants being informed by the concept of structural violence can have the potential for reducing diabetes incidence and improving equities in First Nations’ health outcome (Marr et al., 2011).

**Future Research and Policy Implications:**

While I feel I have managed the primary objectives set for this study, I am also left with the knowledge that I have only just begun to understand the implications of the findings. On a practical
level, priority should be placed on the collection of up-to-date, Aboriginal population and regionally specific health statistics, particularly on diabetes prevalence and incidence. It is also important to carry out research that aims at exploring perceptions surrounding diabetes and its prevention within and between Aboriginal population groups. This may provide a further cue to explore differences in gender-specific perceptions of diabetes. I have presented some opinions on the basis of qualitative information I gathered from the health care providers and community people. But, in this case, a rigorous understanding of community members, health service professionals along with the policy makers’ analysis is needed to address and overcome the challenges with diabetes among Aboriginal Canadians. Overall, improving the inequalities in urban Aboriginal health, specifically women’s health should be given priority with the identification of the most pressing program and policy needs of this population. It will be valuable to include more diabetes patients from different age groups in order to get more varied experiences. As health care professionals witnessed, the age range of diagnosis is decreasing, therefore it will be necessary to include research participants from as early as eighteen years of age in order to deal with earlier adult-onset diabetes. It is also important to explore people’s perceptions of diabetes and its coping strategies according to different age groups, gender and socio-economic strata. Research related to these areas should be funded as a basis for the development of health programs and policies directed specifically toward urban Aboriginal people.

It must also be noted, however, that my intention here is not to generalize the findings, given the very specific nature and number of research participants of a particular geographical setting involved in this research. Unfortunately, it was beyond the scope of this research to include the perception of First Nations people who are homeless and living on the streets. I know that in a sense this research leaves out a considerable section of First Nations people, who are visible in this urban world and unarguably dealing with diabetes and its complications. It is therefore extremely necessary to devote the research attention to the problems facing urban First Nation street people or homeless people with diabetes, so as to inform health promotion programs and policy makers to enhance their quality of life through improved service delivery. Further efforts should be placed in understanding the individual and community strengths through which First Nation people live and cope with diabetes. Consideration to these individual and collective strengths can form the basis of developing future preventative services and strategies for policy decisions surrounding diabetes.
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Note: N/A= does not apply, N/K = not known
References


Canadian Medical Association, (1994). *Bridging the gap: promoting health and healing for aboriginal people in Canada*. Ottawa, ON: CMA.


