

Understanding the Cultural Health Beliefs in Diabetes Education Amongst the Aboriginal
Population Within a City in Southern Ontario

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Abstract

This study examined the cultural health beliefs in diabetes education amongst the Aboriginal population within a city in Southern Ontario. The purpose was to contribute to the development of a culturally relevant diabetes handbook as well as to delivery styles within current diabetes education programs. To this end, a focus group was conducted with Aboriginal men and women between the ages of 18-70 years with type 2 diabetes. Participants were recruited from 2 Aboriginal community centres and an Aboriginal health centre in a city in Southern Ontario. Themes were drawn from the analysis of the focus group transcripts and combined with the findings from the research literature. The major themes that merged were drawn from Eurocentric and Aboriginal theories. The results were a set of recommendations on the type of format for diabetes educational programs such as traditional group activities, variety of electronic format, and culture specific educational resources. The emergent results appear to provide some important insights into program planning for diabetes education centres within Aboriginal communities.

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CHAPTER ONE: INTRODUCTION TO THE STUDY

This study was conducted to understand the cultural health beliefs in diabetes education amongst the Aboriginal population within a city in Southern Ontario.

Aboriginal people have a unique understanding of their health and well-being due to their cultural beliefs, which encompass mental, physical, social, and spiritual factors (Adelson, 2005). At the same time, many Aboriginal people have 2-4 times higher rates of diabetes compared to the general population (Hanley et al., 2003). This high incidence can be attributed to a variety of factors including racial barriers, destroyed self-esteem, and a lack of educational resources (Macaulay, 2009). One of the ways to combat this problem is to implement changes in the community that focus on educational barriers within diabetes management.

The development of new learning and teaching strategies amongst the Aboriginal people need to be explored in diabetes education centres (Reading, 2006). In order to better understand the importance of Aboriginal cultural components in diabetes education, and to optimize diabetes management for patient care, I conducted a focus group session with six Aboriginal participants living with diabetes. Currently, the literature seems to focus on compiling quantitative statistics on evidenced based practices in diabetes management. There is a need to apply qualitative research to understand the cultural barriers in health education. A core component of understanding the health beliefs of diverse populations is to listen to their subjective experiences.

The major findings from the focus group sessions, such as the types of educational resource format required, will help to expand on existing diabetes programs by making recommendations for a culturally sensitive patient care outcome. I hope that

my findings will build upon current diabetes research within the Aboriginal communities in order to provide patients with added resources to take greater control over their diabetes regime. Upon completion of the research project, I would like to develop a relevant patient resource that includes Aboriginal traditional practices based on participants' feedback.

Background of the Problem

The high prevalence of type 2 diabetes currently experienced by Aboriginal Canadians is likely to create subsequent complications amongst this population, such as blindness, kidney failure, and heart disease (Barton, Anderson, & Thommasen, 2005; Hanley et al., 2003). These complications are likely to pose significant challenges to Aboriginal individuals, families, and communities (Hanley et al., 2003). According to Health Canada (2011), the results from a public health perspective on the high prevalence of diabetes amongst the Aboriginal population suggest that the risk factors include biological, genetic, environmental and lifestyle issues.

Approximately half of the patients treated with diabetes fail to meet the recommended target goals for optimal glycemic control (Canadian Diabetes Association, 2008). Although much evidence on the incidence and high prevalence of diabetes amongst the Aboriginal population exists, little has been said on the role of education amongst Aboriginal populations to improve the management of diabetes (Cooper, Booth, & Gill, 2003). Teaching perspectives of diabetes are a significant and important part of the disease management (Funnell et al., 1991). Therefore, culturally appropriate strategies based on the knowledge of individuals and in collaboration with Aboriginal communities need to be identified for effective educational outcomes.

What is Diabetes?

According to the Canadian Diabetes Association, diabetes is a chronic, progressive vascular disease that has far-reaching social, economic, and clinical consequences (CDA, 2008). Diabetes occurs when the body is either unable to produce insulin or cannot effectively use the insulin it produces. There are two main types of diabetes: type 1 and type 2 diabetes. Type 1 diabetes is an autoimmune disease that requires lifelong treatment of insulin therapy (daily administration of exogenous insulin through subcutaneous injections). Type 2 diabetes affects about 90% of the diabetic population. Treatment of type 2 diabetes is initiated by a lifestyle regime (diet and exercise) and usually followed with diabetes medications (CDA, 2008). To help reduce or delay the onset of diabetes complications, it is recommended that regular screening, the importance of diabetes education, and the implementation of early treatment be complete (Harris, Ekoe, Zdanowicz, & Webster-Bogaert, 2005).

Historical Perspective

Over the years, there have been many triumphs and progressive steps towards the economic, social, and political improvements of health within the Aboriginal communities (Adelson, 2005). Despite these triumphs, there continues to be a trend towards Aboriginals bearing a disproportionate burden of chronic diseases, such as diabetes, heart disease, and hypertension (Adelson, 2005). These inequalities can be attributed to factors, such as the Aboriginal history, and the social determinants of health, such as reliance on social assistance, high unemployment rates, and lower levels of education (Frohlich, Ross, & Richmond, 2006). In light of the disproportionate prevalence of chronic diseases amongst the Aboriginals, as a diabetes nurse educator working within the Aboriginal communities, it was noteworthy for me to understand the

historical roots of the Aboriginal culture. Of particular importance to me was seeking to understand the cultural aspects in relation to health. As Adelson noted, factors such as dietary changes of cultural foods, poverty, impact of society changes, and access to resources impact the health of the Aboriginals.

In Canada, there are approximately 3.3 million Aboriginal people, comprising of three separate groups: First Nations, Metis, and Inuit. Each of these has various subgroups that have unique heritages, cultural, and spiritual beliefs. Traditionally, Aboriginal culture is strongly rooted to the interconnectedness of the Earth, (Kenny, 2004). As such, the land is an integral part of their culture and it is central to the health and well-being of Aboriginal communities (Richmond & Ross, as cited in Lavallo, 2009). The history of colonization has created a legacy of the feeling of loss with respect to land and traditional culture amongst the Aboriginals. The legacy of colonization amongst the Aboriginal people included imposing communities to relocate to reservations that were unfamiliar land territories. Besides Aboriginals being displaced from their environments (Lavallo, 2009), colonial law further defragmented the culture by prohibiting the Aboriginals from sharing their cultural ceremonial practices that included, language, songs, and dances. Adelson (2005) states many of the above factors are related to the health of the Aboriginals. Therefore, it is important to understand the meaning of health and wellness in an Aboriginal context. Understanding health is of particular importance in drawing on concepts such as economic conditions, living environments, level of education, and cultural beliefs (Adelson, 2005). Today, although many aboriginals continue to live on Indian Reserves and rural remote areas, many of the Aboriginal

people reside in urban centres (Lavalle, 2009) and the lifestyles have changed with urbanization.

Aboriginal Population in a City in Southern Ontario Region

A city located in Southern Ontario with a total population of approximately 519,000 people (Statistics Canada, 2011). Approximately 13,500 Aboriginal people reside within this Southern region (Statistics Canada, 2006) and 60% of whom reside in urban centres (Richmond & Ross, 2009). Within this Southern Ontario Region is the Aboriginal Health Centre (AHC) that offers services to Aboriginals in primary care along with traditional healing and health promotion cultural services. The AHC (2011) stands firmly on its mission statement to “improve the wellness of Aboriginal individuals and the community by providing services that respect people as individuals with a distinctive cultural identity and distinctive values and beliefs.”

A recent study entitled Our Health Counts (OHC, 2011), focused on urban Aboriginal people residing in Ontario. The purpose of the study was to develop a baseline population health database that would serve as an easily accessible, useful, and culturally relevant database for many levels of policy makers within Ontario. The OHC partnered with many Aboriginal organizational stakeholders for the research study; as such, the study design was a community based participatory research project. One of the designated research community sites was the First Nations in the Southern Ontario region. This site was chosen due to the significant number of Aboriginal people in Southern region coupled with a strong infrastructure of Aboriginal community health and social services.

Results of the OHC study demonstrated for the first time the vast inequities on the determinants of health such as income, housing, health empowerment, and culture-based programs, amongst the First nations within a city in the Southern Ontario. Rates of chronic diseases such as heart disease, hypertension, and diabetes, also revealed trends that were disproportionately higher than the general population this city in Southern Ontario (Canadian Community Health Survey, as cited in OHC, 2011). However, findings also shed light on community efforts, cultural continuity, resilience, and hope for the First nations in city of Southern Ontario (OHC, 2011).

Based on the OHC study (2011), it is clear that Aboriginals in the Southern region want to minimize the disproportions of health within their communities. As a diabetes nurse educator working within the Aboriginal health community, I would like to understand whether increasing cultural diversity, such as values, beliefs, and practices, within diabetes education will improve diabetes management.

Purpose of the Study

The purpose of the research project is to explore the understanding of diabetes education amongst the Aboriginal population within a city in the Southern Ontario. Focus group sessions provided a rich and qualitative means of understanding the cultural health beliefs in diabetes education amongst the Aboriginal population. The key themes identified in the focus groups will contribute to the development of a culturally relevant diabetes resource as well as to delivery styles within current diabetes education programs.

In order to successfully create and implement a culturally appropriate diabetes education plan in Aboriginal communities, it was necessary to determine the types of

Aboriginal learning styles. Identifying the learning styles includes asking questions such as:

1. What kind of data would Aboriginals like to be included within the diabetes education programs?
2. What are some of the challenges experienced with current diabetes education programs?

Finally, the importance of obtaining data from the focus group sessions will contribute to the development of healthcare recommendations for more effective cultural diabetes management. The information collected might also serve to develop a patient resource for Aboriginal people to optimize their understanding of diabetes, which would include cultural components as well as a perspective for health care professionals within diabetes education.

Objectives

The research project was carried out to accomplish the following objectives:

1. To explore the understanding of diabetes education amongst the Aboriginal population in a city within Southern Ontario.
2. To gain a cultural understanding on the learning styles from the Aboriginal people within this region.

The key themes identified will contribute to recommendations for a patient education resource that incorporates a cultural perspective on diabetes. The above objectives were used to guide the literature search in Chapter Two.

Rationale

Given the high incidence and prevalence of chronic diseases such as diabetes within Canada, the Ontario Government created the Local Health Integration Network (LHIN, 2006). The LHIN was constructed to optimize the health care services provided in primary health care. It was argued that the delivery of health care services was provided in isolation and fragmented for chronic diseases such as hypertension, heart disease, and diabetes (LHIN, 2006). Under the umbrella of the LHIN, the Ontario Diabetes Strategy's (Ontario Ministry of Health & Long-Term Care, 2012) objective is to improve access of diabetes care for all individuals.

The ODS also takes the lead in developing and implementing educational resources. The resources were developed based on input comprised of an "expert panel" of health care professionals (LHIN, 2006). Much of the educational resource materials developed for education throughout the region were also translated into different languages to meet the cultural needs of diverse populations. One of the key priorities of the ODS is to address the increased incidence of diabetes in the Aboriginal population and to further expand the diabetes services for the Aboriginal communities.

Despite all the resources such as increased dollar expenditure, educational materials, and specialized services, mandated by the ODS for Aboriginal communities, Aboriginal people continue to face increased incidence of diabetes. Of greater concern, an article featured in the local newspaper (LHIN Gets Poor Rating, 2012) suggests that the LHIN failed to meet the majority of their mandated targets for integrated health services within the province.

Within the Aboriginal Health Centre located in Southern Ontario, it is not clear why many patients referred to the Diabetes Centre for educational sessions often neglect to show up for their appointments. Of greater concern, many patients attend the first diabetes educational sessions but rarely follow through with future treatment plans.

Drawing on the discussed problems in health care management in Aboriginal populations, it is perhaps time to shift the learning pendulum towards obtaining subjective health management data from patients. Patients' lived experiences with diabetes, their management of diabetes, and cultural needs provide a rich opportunity to explore and discover different perspectives of disseminating education.

Scope and Limitations

Understanding the impact and issues related to health, such as chronic diseases amongst the Aboriginal population are not new concepts. It has been thoroughly researched in a variety of disciplines (e.g., health sciences, education, psychology, and Indigenous studies). As a result, I incorporated a multidisciplinary approach in my research. Since I conducted my research in a city in Southern Ontario, I aimed to include research from Ontario. I also included research from across Canada and globally, given that diabetes is a global epidemic and Aboriginal populations experience similar health disparities globally (Frohlich et al., 2006). I also reviewed the types of health challenges amongst other Aboriginal populations. There were considerable overlaps in the research, such as similarities and differences in cultural beliefs, health disparities, and the impact of colonization amongst the Aboriginal population across the different countries. I conducted my research study amongst participants from the Southern Ontario region, which represents a small sector of Canadian Aboriginal populations.

Outline of Chapters

In this chapter, I highlighted the incidence of diabetes amongst the Aboriginal population, defined diabetes, and provided some historical context on the Aboriginal culture. I then explained the purpose of this study and outlined the objectives I hoped to accomplish, and discussed our understanding (health care professionals) of the cultural beliefs in diabetes management amongst the Aboriginals, towards improving diabetes care within educational health centres with more of a cultural focus. My hope is to create a diabetes resource with cultural components. Finally, I detailed the scope and limitations of my research.

Chapter Two reviews the literature on diabetes and cultural needs of the Aboriginal population. I examine some learning theories, role of the diabetes educator, and some challenges in diabetes education. I also examine some of the common processes used in diabetes education centres, namely, the teaching approaches, the challenges, and the benefits. I also discuss how culture plays a role in diabetes management. I conclude with some key themes to facilitate the research study.

Chapter Three introduces the methodology and procedures for my focus group. I describe the research methodology and some of the clinical challenges I experience in my working setting. I also outline the selection of participants, instrumentation, and procedures. I then detail how the data were collected and analyzed. This is followed by a description of the limitations of the research study, how credibility was established, and ethical considerations.

In Chapter Four, I present the results from my focus groups as recommendations for patient education resources. These recommendations incorporate key elements from

the focus group participants. The key themes focus on participants' understanding of the cultural impact of having diabetes and diabetes educational support and resource materials to integrate into diabetes education centres.

In Chapter Five, I discuss the synthesis of the research, the results obtained from the focus group. I also discuss the analysis in the context of the research literature on diabetes education within the Aboriginal communities and Aboriginal learning styles. This chapter outlines some recommendations for diabetes education in diabetes education centers. Finally, I include some closing remarks on lessons learned from conducting this research.

CHAPTER TWO: REVIEW OF THE LITERATURE

In this chapter, I review the literature in diabetes amongst the Aboriginal population. I divide the review into four sections. The first section focuses on factors related to the impact of diabetes on the Aboriginal population; next, I review information on diabetes education, role of the diabetes educator, and the final section on learning theories related to the Aboriginal culture.

Factors Related to the Impact of Diabetes on the Aboriginal Population

Numerous studies have demonstrated that there is an overwhelming increase on the rates of diabetes (type 2) amongst the First Nations population in Canada (Reading, 2003). Yet given the fact that diabetes is on the upswing amongst many Aboriginal communities, the causes remain to be discovered. A study conducted in Sandy Lake, Ontario with the Oji-Cree population, a subpopulation of the Aboriginals, suggests the incidence of diabetes is amongst the highest in the world (Hegele & Bartlett, 2002). Many factors, such as, genetics, environmental, and social determinants are linked to the high incidence of diabetes within the aboriginal populations (Hanley et al., 2003).

Genetics

In 1962, James Neel postulated that much of the chronic diseases (e.g., obesity, hypertension and diabetes) are related to human genetics. For example, early Aboriginal ancestors survived on fewer calories (Hegele & Bartlett, 2002). As such, the term “thrifty gene” allowed for more fat storage during the hunter-gatherer society, and in times when there was a shortage of food supply (Reading, 2003). Today, due to the environmental changes, such as dietary changes, lack of activity, and increased availability of food consumption, the thrifty gene phenomenon is attributed to much of the chronic diseases

present amongst the Aboriginal populations. As Hegele and Bartlett (2002) point out, prior to the Western influences in Sandy Lake many aspects of the traditional lifestyles were still intact and diabetes was almost nonexistent (Reading, 2003). Reading further notes that similar trends are seen amongst Aboriginals in many different parts of the world, which also predisposes them to diabetes.

Environmental

To curb the diabetes epidemic imperative lifestyle modifications (e.g., diet and exercises) are needed. Many marginalized populations, however, continue to face barriers in diabetes management, such as lack of resources and culturally appropriate education. Preventing and managing diabetes requires ongoing lifestyle modifications, such as access to healthy foods, opportunities to maintain physical activities, and health care services. To combat and manage diabetes in the Aboriginal populations requires adequate collaboration amongst individuals, communities, health care services, and government organizations (Young, Reading, Elias, & O'Neil, 2000); however, there is growing concern that despite knowing the environmental triggers, public policies and marketing strategies continue to promote limited access to healthy lifestyles, such as physical activities and calorie dense foods without many nutrients (Harrington, Friel, Thunhurst, Kirby, & McElroy, 2008). It is important to note that without the financial means and cultural appropriate support, diabetes becomes a challenge (Harrington et al., 2008).

Socioeconomic Factors

Social determinants have an impact on areas of health, such as health behaviors and management of health care (Reading & Wien, 2009). It has been documented that disparities in race and ethnicity have an impact on the quality of health care (Drozd,

2000). Communities that are marginalized are often burdened with health problems and have limited access to resources. In Canada, despite many triumphs achieved amongst the Aboriginal communities, Aboriginal people continue to bear a disproportionate burden of health and health disparities, which include factors such as housing, employment, income, and education (Adelson, 2005). Amongst the Aboriginal population in Canada, social determinants of health are largely shaped by historical events (e.g., colonization), which disrupted the lifestyle of communities and families and largely impacting on the Aboriginal nation as a whole (Reading & Wien, 2009). The relocation of communities to rural areas lead to high rates of unemployment, social exclusions, overcrowded housing, and lack of nutritional foods, which are related to chronic diseases such as mental health afflictions, hypertension, and diabetes (Adelson, 2005).

Role of the Diabetes Nurse Educator

As a diabetes nurse educator working within the Aboriginal community, my goal is to understand and provide the appropriate educational material to patients in a culturally meaningful way. As is well known, diabetes impacts all aspects of a patient's life, such as the emotional aspect, the burden of daily management of diabetes care, and cultural beliefs of diabetes (Cooper et al., 2003). These are all important areas to discuss with patients for optimal diabetes care. The challenge is to effectively connect with the patients within the clinical setting. In my work, I would like patients to be able to find meaning in understanding the diabetes information provided and benefit from the diabetes educational sessions.

Health care professionals can play a positive role in patient care and health education. Health care professionals are also well-positioned to use their influence to

advocate for patients for wider changes in health care (Macaulay, 2009). Working within the field of diabetes requires health care professionals attaining expertise for optimal patient outcome (Triplitt, 2010). In Canada, many health care professionals working in the field of diabetes have specialized training to provide excellent diabetes care through good communication skills and a sound knowledge in diabetes (CDA, 2008). However, there still exists a gap around learning outcomes for patients in diabetes management. One of the reasons patient education is not fully effective may be due to the quality of teaching and type of information being offered (Triplitt, 2010). Many health care professionals have not been exposed to formal instruction on teaching and many routinely do not employ the necessary skills needed to enhance effective learning outcomes especially regarding cultural needs. In several health care delivery studies, it has been shown that outcomes in some populations are less than ideal, and these shortcomings are frequently pinned on cultural competency skills (CDA, 2008).

Besides many health care professionals being well-equipped to address diabetes as a disease, it is essential that health care providers understand their cultural interpretations of health care and, more importantly, the patients' perspective of health. Miscommunication can arise if both the health care provider and the patients are governed by their own assumptions, which could potentially impact on patient care. Health care professionals must be able to effectively use strategies to overcome obstacles and strive to provide care for patients of diverse cultural backgrounds.

There is evidence to suggest that cultural training amongst health care professionals impacts on patient satisfaction though it does not necessarily impact on patient adherence (Beach, Price, Robinson, Gozu, & Palacio, 2005). What is particularly

promising is training in cultural competence is increasing in frequency and gaining the attention within the health education field (Beach et al., 2005). Non-Aboriginal health care professionals working in aboriginal communities need to understand how Aboriginal people interpret their experience of health and respond to treatment regimens. More so, it is important to respect the logic and rationale of another system of thought. Although concepts, such as promoting health education and respecting patients' needs, are not new, health care professionals continue to struggle to implement the above (Cooper et al., 2003). As a diabetes nurse educator, I would like to understand how patients perceive the care that they receive.

Learning Theories Related to Aboriginal Culture

As a diabetes nurse educator working within the Aboriginal communities, I must begin to understand what would be the most suitable learning methods in the Aboriginal culture, and ensure that content material is meaningful to their values and beliefs about diabetes. If the educational content needs to be culturally appropriate, I must ask some new questions to optimize education in the clinical settings. Couture (1991) posits that Aboriginal learning is based on holistic, subjective, and transformative learning compared to the Western learning that is objective, secular, and fragmented (as cited in Hoffman, 2010). Many Aboriginal patients are expected to learn the format of diabetes management through the Western format, which is an obvious disruption to the learning process (Couture, 1991, as cited in Hoffman).

Over the years since diabetes has become a key public health concern, the government has put into place many initiatives such as Aboriginal Diabetes Initiative (ADI, 2006), Local Health Integration Network (LHIN, 2006), and the Ontario Diabetes

Strategy (Ontario Ministry of Health & Long-Term Care, 2006). Despite the above initiatives, the rate of diabetes is projected to increase by 2020. Although many of the teachings are provided with the best of intentions, they fail to acknowledge the importance of a more cultural based approach. In light of the above, I would like to explore the ways of learning in the Aboriginal culture. The learning concept among Aboriginals is a common vision of nurturing relationships among individuals, families, and the community at large (Devanesen, 2000). Traditional medicine also seeks to provide meaningful explanation for illness and responds to the personal, family, and community issues surrounding illness (Devanesen, 2000). To gain cultural understanding of the Aboriginal peoples' health concept constitutes listening, learning, and exploring the experiences of diabetes through storytelling (Barton et al., 2005).

Some Aboriginal Learning Styles

Aboriginal knowledge (Battiste, 2005) is passed on from one generation to the next. The knowledge is accumulative through the experiences, teachings, and in “ways of knowing” (Battiste, 2005, p. 15). Therefore, Aboriginal knowledge will have limitations if seen from a Eurocentric viewpoint, which focuses on the values, culture, and beliefs strongly attached to Westernization (Augustine, 1998, as cited in Ledoux, 2006). Eurocentrism supposes the superiority of European knowledge over non-European knowledge (Augustine, 1998, as cited in Ledoux, 2006). As Battiste (2005) states, Aboriginal knowledge cannot reflect the Western approach.

It is clear that the use of Eurocentric approaches have fallen short of providing education for the Aboriginals. The literature states that Aboriginal knowledge is important to understand and incorporate into health care education in the Canadian

system (Battiste, 2005). Aboriginal knowledge is viewed as the answer to repair and provide integration of Aboriginals in the Canadian system (Battiste, 2005). In the medical field, improving the health of Aboriginals has initiated the need to learn and increase our understanding of knowledge amongst the Aboriginal population (Battiste, 2005). Perhaps that might be the answer to improved health outcomes. Some of the traditional learning methods that are strongly rooted in the Aboriginal culture are the role of the Elders, Medicine Wheel, and Sharing Circles.

The Role of the Elders

In the Aboriginal culture, all members play important roles in maintaining the community values. Each community member is seen as having unique experiences and something distinctive to offer the community. Elders in the Aboriginal culture are seen as symbolic figures. At a very early age in life, a few members within the community are selected to be role models for the community (Stiegelbauer, 1996). They are trained to learn all aspects of the traditions, maintain leadership, and ensure the cultural values are passed on from one generation to the next. Elders are seen as the pillars of the communities. Elders are experts in traditional ceremonies, teachings, healing practices, and maintaining harmony within the community. Elders are called upon to make decisions on issues such as health, community development, and government. Within my workplace, I am extremely fortunate to be working with an Elder, collaborating on many levels for his expertise on cultural aspects of health promotion projects. The Elder shares his wealth of knowledge that is passed down from generation to generation. This is rooted in a combination such as storytelling, ceremonies, and ideologies. As he states, the true essence of the Elders' role is gradually diminishing which is unfortunate because

Elders can provide many of the teachings to help restore the Aboriginal communities' health and well-being.

The Medicine Wheel

The Aboriginal belief system also lies in the domain of achieving a balance and wellness in life composed of mental, physical, spiritual, and emotional aspects. The Medicine is a symbolic philosophy of wellness that represents the above four entities of healthy living, namely, mental, physical, emotional, and spiritual (Doucette, Bernard, Simon, & Knockwood, 2004). The four entities are viewed as equally important and belonging to a whole, which reinforces the concept of interconnectedness. It also signifies the strength in working and learning in harmony with all four entities. The Medicine Wheel has been used for generations amongst the Aboriginal communities as a teaching tool that represents some concept of change, balance, healing, and renewed hope as a whole (person, families, and communities; McCormick, 1996).

Sharing Circles

As stated, Aboriginal learning has a strong tradition in oral learning (Battiste, 2005). Traditionally, sharing circles served as important ways to communicate and share information. Sharing circles incorporate oral traditions that are deeply engrained in the culture. It is based on (a) shared values, (b) supporting one another, (c) coming to a group consensus to tackle problems, and (d) achieve unified solutions. This profound method of knowledge has been effective to teach culture, promote health, and support from counselors. Furthermore, sharing circles can provide a rich source of information while still maintaining a culturally sensitive component (Rothe, Ozegovic & Carroll, 2009). Within diabetes education centres, sharing circles can serve as an effective means for

patients to share their diabetes experiences and learn from each other.

Some Eurocentric Theories

A part of being an effective nurse educator is to understand how adults learn best. In this section, I will outline such learning theories as andragogy, transformational learning, and social cognitive theory.

Andragogy: Malcolm Knowles

Knowles (1975) postulates that educators play a key role across the spectrum of the adult learners intellectual being. It should be the goal of the educator to facilitate the learning needs of the adult learner. Knowles identified the following five characteristics of the adult learner. Firstly, “adults are autonomous and self directed” (Knowles, 1975); adults must be able to direct their learning. Educators as facilitators must guide and actively involve the learner in their learning process and help them reach their learning goals. Secondly, “adults have accumulated a foundation of life experiences and knowledge that may include work-related activities, family responsibilities, and previous education” (Knowles, 1975). The educator has the responsibility to assist the learner in recognizing the value of relating new information with the learner’s past experiences and knowledge. Thirdly, “adults are goal-oriented” (Knowles, 1975, p. 68); the adult learner attends educational programs usually with an understanding of the goals they would like to attain. At the very onset, educators must help facilitate how the learner will attain his/her goals within the educational group program (Knowles, 1975). Fourthly, “adults are relevancy- oriented”; the adult learner must be able to relate the value of the learning to work or personal life. Educators must help the learner identify their learning needs at the very beginning of the learning process. Learning needs can be fulfilled by the learner

choosing projects that attains to their interests (Knowles, 1975). Fifthly, “adults are practical”; that is, the learner will focus on aspects of the learning process, which have the most relevance to their work or personal life. Educators have to facilitate the learning process so that the learner is able to explicitly engage in the new knowledge and relate its relevance to their own sphere (Knowles, 1975). Knowles’ last characteristic of the adult learner is respect: “As do all learners, adults need to be shown respect.” The adult learner brings a wealth of knowledge to the learning environment. Educators need to be cognitive of the learner’s experiences and allow learners to freely express themselves and participate in the learning (Knowles, 1975). As Knowles noted, adults bring with them their own life experiences within the learning environment (as cited in Kaufman, 2003). Andragogy may be more in harmony with traditional Aboriginal learning as it is based on the life experiences of the individuals within the communities which are passed on from generation to generation.

Theory on Transformational Learning: John Mezirow

Mezirow’s (1997) theory of transformational learning focuses on the link between development and learning. Mezirow (1997) argues that the adult learner can be “transformed” through a process involving a “disorientating dilemma,” which could be a result from a personal crisis. The disorientating dilemma is followed through a process of critical reflection whereby the adult learner engages in reevaluating whatever personal or environmental assumptions they had made (Merriam, 2004). As the learner moves through the different levels of critical reflectivity, Mezirow (1981) stated that the learner could be transformed and reach a stage of critical consciousness. The learner becomes more self-aware and begins to gain an in-depth understanding of his/her past and present

experiences, and the learner begins to create a dramatic personal and social change. This ultimately results in new interpretations of the experience. He states that knowledge is created from interpretations and reinterpretations in light of new experiences (Mezirow, 1997). In the learning environment, Mezirow (1997) states that the learner would make transformative changes as long as the new materials presented to the learner fit with their existing frame of thoughts. The learner's life experiences provide the foundation for transformational learning (Merriam, 2004). Through critical reflection, the learner then begins to question the validity of his/her viewpoints. Mezirow (1997) identifies rational discourse as the transformation when the learner begins to further explore their viewpoints and acknowledges those ideas of the instructor and peers. As Mezirow (1997) noted, transformative changes in the way individuals learn takes place when the new content of the learning material aligns with the individuals existing learning frame of reference. Since Aboriginal learning is created from many pathways, such as story telling, observing and learning from Elders, content of the educational material should be delivered in formats, which are in keeping with the Aboriginal learning styles.

Social Cognition: Bandura's Theory

Bandura's (1997) social cognitive theory postulates that individuals learn from one another. This is achieved through observation, imitation, and modeling others. The concept of self-efficacy lies at the center of Bandura's theory. Bandura has brought forth the idea that the self-efficacy of individuals plays a major part in how individuals approach their goals, tasks, and challenges in their lives. According to Bandura, there are four major areas of self-efficacy: mastery experiences, social modeling, social persuasion, and psychological responses. Bandura states, "The most effective way of

developing a strong sense of *self-efficacy* is through mastery experiences” (1997). He further emphasizes that when a task is performed well, it strengthens one’s sense of self-efficacy; however, inadequately dealing with a task or challenge could potentially weaken one’s self-efficacy. In social modeling, another important source is when an individual observes another successfully completing a task. Bandura (1997) states, “seeing people similar to oneself succeed by sustained effort raises observers' beliefs that they too possess the capabilities master comparable activities to succeed.” In social persuasion, Bandura mentions when an individual gets verbal encouragement from others, it helps empower the individual to focus on giving off his/her best at a task. He further adds that individuals can be coaxed into the belief that they possess the skills and capabilities to accomplish the task. In psychological responses, Bandura notes, “it is not the sheer intensity of emotional and physical reactions that is important but rather how they are perceived and interpreted” (1997). He emphasizes the need for gaining skills to effectively minimize stress levels for one’s improved sense of self-efficacy. For my study, I have researched background information on diabetes, the Aboriginal culture, teaching and learning strengths, and barriers in diabetes education. As a diabetes nurse educator working within the Aboriginal health centre, I would like to understand what diabetes means to the Aboriginal population within this region. Given the high incidence and prevalence of diabetes within the Aboriginal communities, I believe that the information presented might help to provide better diabetes education and develop a patient diabetes education resource. The resources can stem from including Elders, sharing circles, and focusing on patient centered care using adult learning theories.

CHAPTER THREE: METHODOLOGY AND PROCEDURES

The purpose of my research was to explore the understanding of diabetes education amongst the Aboriginal population in a city in the Southern Ontario region. Key themes identified through focus group feedback will contribute to the development of a culturally relevant diabetes resource or diabetes education program. In this chapter, I outline the methodology for my study. I begin with a description of the research methodology and a brief outline of the pilot study conducted within my clinical environment. I subsequently outline the selection of the participants for the focus group. Instrumentation, data collection, methodological assumptions, limitations, and, finally, ethical considerations for the study are then discussed.

Research Methodology and Design

There have been numerous attempts at different structural levels of government and local organization levels to identify the best diabetes learning strategies within the aboriginal population (ODS, 2012). However, the prevalence of diabetes amongst the Aboriginal population is still high and is likely to increase in the next decade (Hanley et al., 2003). As Reading and Nowgessic (2002) note, there is an urgency to address diabetes amongst the Aboriginal population.

To explore the cultural perspectives on the meaning of diabetes amongst the Aboriginals for my research study, as a diabetes nurse educator I drew on my clinical work experiences, feedback from Aboriginal patient surveys conducted within my work placement, and the expertise of the Elder at the Aboriginal Health Centre. Given the exploratory nature of my research study, qualitative methods (using focus groups) were selected as an appropriate approach for exploring the cultural perspectives on diabetes

amongst participants. In qualitative research, the researcher is able to gain a rich understanding of a specific social context or phenomenon from the research participants (Creswell, 2008). Furthermore, in qualitative research, data are drawn from the participants' experiences, behaviors, beliefs, opinions, and emotions (Creswell, 2008). The researcher asks broad general questions to participants on the research topic to best learn from the participants. This is in keeping with the Aboriginal knowledge, which is often connected with oral learning. The teachings and knowledge amongst the Aboriginals are also embedded in experiences, role modeling and animation rather than written (Battiste, 2005). In addition, as noted by Halcomb, Gholizadeh, DiGiacomo, Phillips, and Davidson (2007), focus group methods are becoming increasingly popular; particularly in engaging cultural and diverse populations in health research (Halcomb et al., 2007).

Pilot Study

After developing the initial set of questions for the focus group, of which a full description of this process can be found in the next section on Instrumentation, I pilot tested the list of questions separately to staff within the Health Centre for their feedback. Pilot testing involves a small number of people to test the efficacy of the questions, the wording, the measurement, and their comprehension of the questions (van Teijlingen & Hundley, 2001). The staff who offered their input for the pilot testing comprised of a physician, nurse practitioner, health promotions coordinator, and an Elder. I proceeded by explaining the purpose of the study: To explore the understanding of diabetes education amongst the aboriginal population, through the use of focus groups. Secondly, I mentioned that the key themes identified would contribute to the development of a

culturally relevant diabetes resource or diabetes education program. I further explained the research methodology using focus group to generate the data. I then provided a list of the questions to the staff for any suggestions, such as changes to the questions that would improve the clarity, content, and quality of the questions. I also asked if any questions should be added or omitted from the list of questions. The whole procedure took about 5 days to meet with all of the staff, explain the research study, and obtain their feedback.

Based on their feedback, some changes were made. For example, one health care professional suggested that I restructure the order of the questions to include an introduction question, such as; Tell me something about yourself, and then transition into key data questions, ending with my closing question. I did consider her suggestion but thought that particular introduction question, if included, may consume a lot of the time allotted for the focus group. The Elder suggested I formulate seven questions to obtain the data. His belief was that seven is a Lucky Number and it is in keeping with the Aboriginal rituals of the, Seven Grandfather Teachings, Seven Proficiencies and Seven Generations of Life. Other staff members thought the questions were good and would generate good data. I used the feedback from staff members and constant collaboration and reviewing with my supervisor to change the wording, format the sentencing, and limit the number of questions to seven. A full description of this process can be found in the next section on instrumentation.

Instrumentation

The initial set of questions for the focus group was based on the literature I had researched as well as my own personal work experiences as a diabetes nurse educator working within cultural diverse diabetes education centers. The questions were based on

three areas I wished to explore: (a) participants' definition of diabetes, (b) social and cultural impact of living with diabetes, and (c) appropriate culture specific resources for diabetes education. Many of the questions also coincided with my work experience. A final list of questions is presented in the Appendix. Question 1 was based on acquiring a broad and personal perspective on the meaning of diabetes and was based on my own experience. Questions 2 and 6 were on cultural aspects of diabetes and were inspired by the following research articles: Lavallée & Howard (2011), Crowshoe (2005). Questions 3, 4, and 5 were developed from the works of Eigenmann, Skinner, and Colagiuri (2011); Tang, Funnell, and Anderson (2006), and Toobert, Hampson, and Glasgow (2000). Within these articles, it is noted that the development of questions to assess the capabilities of effective diabetes education interventions amongst people living with diabetes is based on the use of a valid and reliable questionnaire (Eigenmann et al., 2011). Furthermore results from the article by Eigenmann et al. on the diabetes knowledge questionnaire showed good reliability internal consistency and a tool applicable to people of varying degrees of health literacy. Question 7 was created to gather additional data from participants on the type of format, which may or may not contribute to the development of a culturally relevant diabetes resource or diabetes education program and was derived specifically from the literature and my experience.

Based on the feedback from pilot testing of the initial set of questions amongst staff members within my work place and in collaboration with my supervisor, I incorporated the suggestions and simplified the wording of the questions. I also removed question biases and rephrased questions to generate meaningful data. For example, I edited a question: When attending diabetes education sessions, explain if the educational

handouts have been helpful in improving your self-management skills? and replaced it with: What information or handouts have you found helpful in managing your diabetes? Furthermore, I reworked the wording of the questions to improve clarity and regrouped the questions into the following sections: (a) definition of diabetes, (b) cultural aspects of diabetes, and (c) educational resources. I removed questions that were redundant and also limited the number of questions to seven as the Elder suggested. The final questions were then reviewed with my supervisor and approved.

Selection of Site and Participants

In qualitative research, it is essential that the potential participants to be selected are able to elicit and provide insight on the research information. Therefore, participants should have experience with the phenomenon and be able to articulate their perspective on the research topic (Krueger & Casey, 2000). The research focused on the cultural aspects of diabetes within the Aboriginal communities, therefore, it was important to obtain a homogenous group to provide the rich cultural experience. To generate ample credible data from a small sector of the urban Aboriginal population within the city in Southern Ontario, the posters outlined details of the research study; eligibility and contact information were displayed at two Aboriginal Community Centers and the Aboriginal Health Centre.

The Indian Community Centres host many traditional cultural events, such as a women's circle, seniors' events, and regular weekly social events (e.g., canning, cooking, and bingo). These events draw a large sector of the urban Aboriginal population within the Southern region. In the Aboriginal Health Centre, the posters were posted at the main entrance, the health clinic, patient advocacy department, and the traditional healing

centre. There were no posters placed within the diabetes centre due to conflict of interest; as the researcher of the study, I am the diabetes nurse educator at the Aboriginal Health Centre.

Participant Selection

The purposive sampling was composed of voluntary participation of Aboriginal men and women with type 2 diabetes between the ages of 18-70 years. Individuals who responded to the posters voluntarily contacted me. A detail of the study was provided and any additional information requested was provided to potential participants. Ethical issues were also explained. In addition, the Aboriginal Health Centre staff members, such as patient advocate, nurse practitioners, and traditional staff members, also helped facilitate the recruitment process. Details of the research study were provided to the staff members. The first few weeks elicited many interested potential participants; however, not all who called wanted to be included in the study. Some of the reasons were due to scheduling times, transportation, and monetary compensation. Although the posters generated many interested participants, the personal approach by staff members was found to be the most successful strategy for recruitment. The first six participants who contacted me with an expressed interest to partake in the research project were enrolled in the study. The date for the focus group was set at a mutually convenient day and time. In addition, all participants who confirmed received a follow-up telephone call to reconfirm their attendance on the scheduled date and time of the focus group.

Site for the Focus Group Environment

The focus group took place at the Aboriginal Health Centre. All of the participants were familiar with the environment. Participants were given the option to

choose a room since it was after regular working hours. The room chosen was socially acceptable to all participants. The setting was also private and comfortable. Participants were given the option to form a circle or sit around a table. Participants preferred sitting around the table. There was good lighting, a well-ventilated room, and acceptable room temperature.

Focus Group

To generate the best outcome for the study, the focus group method was implemented. The dynamics of a group through interactive process can elicit valid ideas, thoughts and a variety of perspectives on data, which is particularly helpful for program planning (Blanchard, Rose, Taylor, McEntee & Latchaw, 1999). Therefore, it was of extreme importance for me as the researcher to ensure the smooth flow, structure, and good facilitating of the group process. The focus for the research study comprised of six participants, three women and three men, who self-identified as being Aboriginal. The session began with greeting all participants, thanking them for attending, and giving a detailed explanation on the purpose to the study. Ethics approval by the Research Ethics Board and the written consent form was read aloud. Participants were then given a chance to ask any questions and, once again, they were reminded that they had the option to withdraw from the study at any time.

Participants were also given the option to choose a pseudonym. Only one participant chose a pseudonym. All other participants used his or her first name during the focus group, but did not want to be identified in the research project by their name. Once permission to audiotape and written consent was obtained, the focus group proceeded. As the researcher and facilitator, I explained the ground rules pertaining to the

focus group. I clearly explained that everyone's opinions are important, there were no right or wrong answers, everyone should be given the opportunity to speak, and everyone was free to answer or not to answer any questions they choose. Participants were once again reminded they could withdraw from the interview at any time without penalty. Furthermore, it was again emphasized, although one cannot guarantee complete confidentiality, what was said in the group should remain confidential.

I provided participants with my work email and phone number to contact me if they had any questions or concerns after the focus group session. I also promised participants that within 2 weeks from the date of the focus group, excerpts of their responses to the questions would be written and shared with the participant for verification. After receiving consent from the participants, I proceeded with the needs assessment.

Data Collection and Recording

The focus group verbal interactions were recorded using an RCA RP5120-A digital voice recorder. The audio files obtained from the focus group were uploaded to my personal desktop computer. The audio recordings from the focus group were kept on a computer in a locked room. These recordings will be kept locked for a period of 1 year at which point they will be erased. I played the recordings using QuickTime and transcribed them in Microsoft Word. Although participants were given the choice to use their own names and/or choose to have pseudonyms, during transcribing I replaced all names and pseudonyms with numbers in the transcriptions. Participants were invited to come back in 2 weeks for a second session to indicate any piece of the transcript they wanted changed or to protect their identity and to verify the content of data. Participants

could also indicate their interest in receiving a copy of the MRP after it has been finalized and approved by my supervisor and the Department of Graduate and Undergraduate Studies in Education.

Data Processing and Analysis

The goal of the focus group was two-fold. Firstly, to seek a rich, cultural, and personal understanding of diabetes knowledge from the participants. Secondly, the data retrieved from the focus group were a means of collecting key information on the type of educational formats that would facilitate recommendations for diabetes educational resources or to contribute to existing diabetes educational programs within the Aboriginal communities.

The audiotapes of the focus group sessions were transcribed verbatim. The data management with focus groups can pose a key challenge; I opted to use a grid as a tool to summarize the data (Halcomb et al., 2007). I plotted the seven questions on the vertical grid axis and each of the participants' responses on the horizontal grid axis. I then went through each of the transcripts, coding line by line all of the participants' responses within each grid cell I deemed as relevant to the flow of themes. I reread, underlined, and hi-lighted common themes. In addition, I recomputed each of the themes to ensure that no important ideas or data had been missed. The consistency and credibility of the key themes and all preliminary findings were verified by the researcher, then verified with participants at a follow-up focus group session. The themes and common responses were further organized and confirmed by the literature review and my own experience working within the field of diabetes.

Methodological Assumptions

When conducting this research, the following assumptions were made. First, I assumed that some sort of recommendations to include cultural and traditional aspects in diabetes would be a useful tool for imparting information on diabetes education within the aboriginal population. Diabetes is still on the upswing amongst the Aboriginal people (Young et al., 2000). Young et al. also make note of the importance in understanding how Aboriginal people interpret their illness and further noting to respect another system of thought. In addition, according to the statistics from the Ontario diabetes Strategy (Ontario Ministry of Health & Long-Term Care, 2012), diabetes education programs experience high no-show rates for diabetes education appointment amongst the Aboriginal population; therefore, the data should serve useful for making recommendations or for guiding diabetes education programs serving the Aboriginal population.

In regards to the focus group session, I made several important assumptions. Firstly, I assumed that the six participants from the focus group would be able to provide important data to drive the recommendations on the type of format for diabetes education. Research supports that focus groups are especially useful in seeking an understanding of cultural beliefs (Blanchard et al., 1999). Furthermore, focus groups are useful in identifying barriers in diabetes management and care (Halcomb et al., 2007). Another important point is the Aboriginal cultural aspect of learning; I assumed that the data would generate useful outcomes for cultural aspects in diabetes education as traditional Aboriginal knowledge is based on factors such as, story telling, experiential learning, and

personal experiences (Crowshoe, 2005). And finally, I assumed that a 1-hour focus group and the subsequent data from the focus group would provide me with sufficient information to make recommendations.

Limitations

The study was limited in several ways. Firstly, conducting only one focus group was limiting as many researchers support a minimum of 3-4 focus groups. In addition, I recomputed each of the themes to ensure that no important ideas or data had been missed, the rationale being that data analysis of patterns and themes can merge between and across all of the focus groups (Halcomb et al., 2007, Krueger & Casey, 2000). However, the sample size of the focus group was sufficient, as 4-12 participants is generally considered an adequate number of participants in a focus group (Krueger & Casey, 2000).

Another limitation was choosing to select a few centres to post flyers, which limited a much wider sector of the urban Aboriginal population. The study could also have its limitations due to the biases that I carry. Firstly, I have many years of experience working in diverse educational centres; thus, over the years, I have formulated a set of criteria which guide my clinical practice. Secondly, I have had the privilege of gaining an in-depth cultural understanding and beliefs of the Aboriginal population whilst living on an Indian Reserve. However, my experience is limited to one particular group of Aboriginal people, which limits my experience and knowledge amongst a broader sector of the Aboriginal population. Despite some of the limitations I encountered in the study, the study was able to generate significant themes that are of paramount importance to recommend educational resources that are culturally relevant in the Aboriginal population.

Establishing Credibility

The selection of participants, member checking, and identifying key words obtained from the participants served to capture as key phrases; the key phrases all served to add credibility to the study. The credibility of the participants was established through the selection criteria. Participants' responses were subsequently read and reread to identify themes that were related to the research question. To ensure the credibility and consistency of the themes derived, the themes were discussed with the Elder until a consensus on the main themes were derived. A member check occurred 2 weeks after the initial focus group meeting. Participants were invited for a second group session to verify the data and provide feedback on the results. No participants returned for a second group session; however, three participants came at separate times to inquire about the identified themes. At that time information was shared with the participants.

Ethical Considerations

This research was conducted with the approval of Brock's Research and Ethics Board, file number 12-034-SIMMONS. The primary ethical consideration of this study was the confidentiality of participants. In addition, it was critical to me to ensure that the rights of the Aboriginal people be acknowledged. I also acknowledged that the research should include participants in marginalized groups as co-researchers wherever possible. In this study, I was able to partner with our health centre's Elder in doing the study. One further consideration was the risk that a participant may feel obliged to participate in the study because I am currently employed as the diabetes nurse educator at the Aboriginal Health Centre. To minimize this risk, participants were informed through flyers posted

within the health centre and at local Aboriginal communities. No flyers were posted in the Diabetes Education Centre to ensure participants would not feel pressured to take part in the study. Participants were also invited to a second session to verify data obtained.

In order to secure participants' confidentiality all interview data (i.e., recordings, transcripts, analysis, etc.) were kept in a locked room that only I have access to.

Furthermore, participants were informed at the outset of the interview that they could refuse to answer questions or withdraw from the study without penalty. To protect participants' confidentiality, all names were replaced with pseudonyms. All audio and documents containing personal identifies will be deleted in 1 year after completion of my Master of Education degree.

Restatement of the Study Area

The purpose of my research was to explore the understanding of diabetes education amongst the Aboriginal population in the Southern Ontario region. A focus group was conducted comprising of six participants with type 2 diabetes. Key themes identified through focus group feedback will help contribute to the development of a culturally relevant diabetes resource or diabetes education program.

CHAPTER FOUR: RESULTS OF THE NEEDS ASSESSMENT

A focus group was conducted to understand the cultural health beliefs in diabetes education amongst the Aboriginal population within the Southern Ontario region. The focus group comprised of six participants with type 2 diabetes. All participants have experience living and coping with diabetes management. I read through the transcripts looked for symbolic patterns and categories. I then inductively began developing clusters of similar codes and, eventually, built themes. The focus group results were grouped into four categories: (a) participants' understanding of diabetes, (b) the cultural impact participants' with diabetes experience, (c) educational support and resource materials the participants have received, and (d) participants' recommendations on the educational format and content delivery for diabetes education.

Participants' Understanding of Diabetes

Many participants spoke of being shocked and having feelings of despair when diagnosed with diabetes. Although some expressed fatalistic outcomes from diabetes, they believed, with education and support, they could prevent complications of diabetes by taking the appropriate measures.

When, I was first told that I have diabetes it wasn't really a shock but then at the same time it felt kind of bewildered by it. The choice is to take care of yourself at the same time you're saying to yourself it's scary. (Participant 2)

To me, first of all death. Diabetes at that time when it came out was death because my aunt died of diabetes and my uncle. Now, as I learn, it means I have to cut back on the greasy foods that I shouldn't eat. (Participant 5)

For me, it's a disease that my grandmother had, my mother and father has it. I had it for a number of years; it probably went undiagnosed for a while. I did try to go on an all-natural diet with a group of traditional people from the reserve.

(Participant 3)

A strong link that family history of diabetes is a risk factor was an overriding theme when the participants discussed their personal meaning of diabetes. Therefore, learning about diabetes management was important to the group. Based on their experiences, the key component for participants was to learn to change or make behavioral changes in lifestyle to prevent complications from diabetes. One participant stated that he did not know that he had to take medication for his diabetes. Within this focus group, learning about prevention of diabetes and related complications was highly valued. It was also identified that participants tried to make self-directed changes to their lifestyle based on what they thought might help improve their outcome. Clearly, participants did not want to end up having complications like their family members.

Sociocultural Impact on Participants Who Have Diabetes

Sociocultural factors, such as dietary measure, levels of physical activity and sociowell-being, play a significant role in the management of type 2 diabetes amongst the Aboriginal population (Reading & Wien, 2009). Colonization systematically and negatively brought serious challenges within the contemporary Aboriginal population, such as diet, physical activity, and relocation, which created adverse health outcomes such as increased risk of type 2 diabetes (Richmond & Ross, 2009). The illustrative excerpts from the participants brought a rich understanding of their sociocultural

experiences and the impact these factors have in diabetes management. Diet, physical activity, and mental well-being all emerged as central themes.

Diet

The cultural impact of changes to diet was another common theme amongst most participants. Participants expressed sadness at missing traditional foods. They also expressed knowing that changes to their dietary habits have, indeed, largely impacted their health. Most Aboriginal diets prior to the arrival of Europeans comprised of sufficient energy intake, which was made up of animal protein, low fat, and low carbohydrate. Today the Aboriginal diet contains calorie dense and low nutritional quality (Willows, 2005).

The last 100 years with the coming of the white flour and white sugar there's a lot of fry bread, doughnuts, that has directly affected our people. And, there are things that we are suppose to stay away from white rice, white bread, and lard/shortening, milk, salt. (Participant 2)

And, so it's my understanding now this wasn't a part of our diet until the Europeans came and that has directly affected us in negative ways and our bodies can't and weren't built to digest these things so our body has a hard time dealing with the sugar. Our main foods were corn. We would have corn bread or corn soup. So, traditionally we had a healthy lifestyle before the White Man came. (Participant 5)

I'm from the reserve and one of the elders got together with about 14 people and said let's try this traditional diet where we would eat all natural foods, fish, wild rice, fruit, vegetables. We tried to go on this diet we had to set aside chips and not

have any sugar. If we had a snack it had to be healthy, that really brought my sugar levels down and really helped me. It was hard to maintain to live on the wild meat but if my uncles went out and hunted that year they would bring me some meat and I would make the traditional dishes like moose meat, that's very lean or deer roast and chili sauce and changing that diet was really helpful in bringing my sugar levels down. And, because I'm on a budget, I can't afford it.

(Participant 3)

Some of the cluster themes that have emerged from the focus group relate to the complexities of cultural diets with postcolonial changes. Essentially, most of the original Aboriginal stories hold lessons that include animal life and plant foods as being central to their diets. Furthermore, knowing how and when to harvest these foods and preserve them are important cultural information. Because of colonization, however, the knowledge required is gradually disappearing. Participants expressed wanting to gain the required knowledge on traditional foods, healthy eating, learning to read food labels, and impact of fast food on health (Bhattacharyya et al., 2011).

My grandsons would benefit from learning, I am speaking of my grandson because he went to the local mall the other day and wanted to go to a fast food outlet and I had to tell my grandson that it was no good. So, he said he wanted is my favourite fast food and I said no, it's no good, so now when we pass a fast food outlet he says 'No good eh grandma?' and I say no good. My son might take him there but I will not take him there. (Participant 4)

The introduction to changes in dietary measures has impacted the health of the Aboriginal population such as increased risk of heart diseases, stroke, and diabetes (Willows, 2005) Some changes, however, have been positive, such as electricity, which has allowed for the freezing, cooking, and canning of foods. In some ways over time, the advantage of technology can help sustain the use of traditional foods. Although, there are many gaps pertaining to the diminished use of traditional food choices, Willows (2011) noted that with the increase of traditional foods, the health of Aboriginals would be improved.

One participant spoke about the thrifty gene, stating it is both an advantage and a disadvantage to have this genotype. It is hypothesized that the thrifty gene, originally proposed by Neel in 1962, served as an advantage to the Paleo Indians during times of low food consumptions. Today, due to sedentary lifestyle, this genotype may be a large contributing factor to type 2 diabetes (Daniel & Gamble, 1995).

One participant expressed frustration at the possibility of having this genotype and felt this and having diabetes affects his socializing with family and friends. He states, however, that he is also pleased to know this so he can cut back on refined carbohydrates (e.g., sugar) because he has the thrifty genotype. More research, thus, needs to be explored on the 'thrifty' genotype hypothesis. As Willows (2005) states, the historical experiences and the unique cultures of the Aboriginal population differentiate them within a Canadian society. The dietary practices pose a significant health risk and also reduce the quality of life amongst some Aboriginals (Willows, 2005). Thus, to effectively foster and maintain well-balanced meals, there needs to be a more comprehensive understanding of factors such as values, attitudes, and beliefs about traditional foods.

Well the thrifty gene is a neat thing to think about because it really affects umm us, when you look at it from a cultural stance it affects you from a certain way because now culturally you know what you should be doing with yourself and eating. So, the thrifty gene and so finding that out you can't really go for coffee anymore with people because of the sugar level. I used to use a bunch of sugar in my coffee all the time now I'm using sweetener, but I can't even use sweetener anymore so you have to drink it black. So, socially I'm not going out for coffee with people. So culturally and personally it affects your life. (Participant 2)

Physical Activity

The participants expressed challenges and struggles with physical activity. Despite the many challenges, participants still voiced a strong desire to want traditional activities and physical activities in the management of their lifestyle. Well over half of the participants expressed the importance of some physical activity incorporated in their lives. This is in keeping with the works of Young and Katzmarzyk (2007) that numerous Aboriginals have memories of daily activities of obtaining food, which demanded physical labor. These daily activities of obtaining food (e.g., berry picking, hunting, and fishing) made up much of their physical activity. However, with changing times where more of a sedentary lifestyle is prevalent, physical activity has lessened in many Aboriginal communities (Young & Katzmarzyk, 2007)

A lot of the social dances we have and it's a good workout, if you're dancing for 2 hours it's a good rigorous workout and a lot of the older ones that are unable to dance that lifts their spirits to watch the young ones dance and you're not thinking about that, you are celebrating life and it makes you feel good. (Participant 5)

Traditionally, we hunted and went up and fished and the women looked after the gardens and the children as well. So, with having a sedentary lifestyle really affected us we have to make time to exercise and even visiting with each other makes a difference. (Participant 3)

Games and Nintendo or Xbox or that sort of thing. We need to encourage the children to play sports and there are some adults that still play sports hockey, baseball, lacrosse stuff like. We must encourage children too, to hike, do walking and learning about the natural medicines which are in the culture. (Participant 1)

Participants expressed wanting to include traditional activities (e.g., drumming, dancing, and singing) to enhance physical activity. Participants cited that activity is important to them as it brings families and communities together.

If a person is not active and they don't like exercise, the singing and drumming is there with the pulse of the universe, so if they're out there and they're dancing to them it is joyful and happy not like ugh I have to get up and exercise. But, the dancing is exercise, and that's where the songs come in and even for the younger ones some of them don't like to get out and do anything they want to stay home. (Participant 5)

They would like to have diabetes programs that include traditional components for physical activity programs. Research has shown that physical activity is a significant behavioral approach in managing type 2 diabetes (Brunet, Plotnikoff, Raine, & Courneya, 2005). Additionally, physical activity improves a sense of well-being and enriches quality of life (Brunet et al., 2005). Therefore, including traditional activities in

their day-to-day lives would help manage their type 2 diabetes, as well as bring families and communities together which would improve their overall sense of well-being and enrich their quality of life.

Social Well-Being

The experiences shared by the participants were both powerful and touching in regards to how diabetes impacts their social well-being. It is well documented that stress amongst the Aboriginal population is related to historical, cultural, and social factors. Furthermore, stress is also linked to the management of diabetes (Iwasaki, Bartlett, & O'Neil, 2005).

I'm maybe a bit more socially withdrawn than I have been in the past. Diabetes' effect on mental health and much health complication. So, it doesn't make you feel normal, I don't know if it's ... it's hard to describe really. (Participant 1)

A friend who is a diabetic and he was a fisherman all his life and his tradition had been passed on from his ancestors. Because of diabetes he couldn't go out on the water anymore he was sick, his legs were bad and he had to give up his work and he had to sell his boat and all his fishing gear to the government him and his family as well because the source of income wasn't there anymore.

(Participant 5)

I remember when I was first diagnosed with diabetes I was diabetic choosing not to accept it as many new diabetics do. But, once I accepted that my life was not ruined forever, and allowed me to have peace that this was not a problem just for me, it was part of the creator's plan to have diabetes and to learn something about it. So, when it became creator's plan then you have to follow. (Participant 2)

Many participants told stories of family members struggling with diabetes and the resulting challenges for them as well as moving; however, they also expressed a sense of courage to manage as best they could and were open to learning about diabetes.

Diabetes Educational Support and Resource Materials

Perhaps the most significant feedback from participants was on the educational support and resource materials for diabetes management. Participants shared their experiences in diabetes self-management skills. They verbalized experiences on what they found beneficial with diabetes education programs. Other reported experiences centered on participants' dissatisfaction rooted in types of diabetes program options within the education centres. From an observational perspective, the interaction between and amongst participants on the programs they attended also provided a wealth of information to me as the researcher.

The issue is there are so many programs available out there like even here at the centre, you don't know the programs that are out there. We need a better information system either well displayed posters with information on them on a board. Put a great big sign on the new programs or something like that you know. Or, there was some communication via email about new programs coming up.
(Participant 5)

Not all Aboriginal people are educated towards those type of ceremonies but you know. They have heard of them and they would probably feel more attentive and comfortable if those things were offered in education sessions like we have here now and have discussions and have a little more spiritual. (Participant 1)

I'm older, but what I would say about pictures? I wouldn't mind seeing pictures and pictures going with what you are reading. I know for me sometimes I can't understand what I'm reading but, if I have a picture there to say it, maybe it's a bit better. You know what I mean? Pictures or whatever because sometimes books have so much big words. I'm 51 years old, but I don't know those big words. So, pictures and cultural pictures whatever help. That's it. When I read something it's like I can't understand what I'm reading. (Participant 4)

Participants shared their frustrations on wanting to have access to information that would help them cope with diabetes. Participants expressed wanting to have culturally appropriate information and would like to turn to their cultural ways to manage diabetes.

Chapter Summary

The participants from the focus group provided a rich understanding on the impact of diabetes on their personal lives and their family unit. They provided deep valued-based opinions on how colonization has changed the very core of their culture and impacted their health. Participants also shared valuable formation on what types of format they would prefer for diabetes education classes. A summary of the findings is displayed in Table 1.

The summary findings were presented in seven broad categories as presented in Table 1. After working through the seven broad categories, I narrowed the categories to three major categories: (a) Participants' definition of diabetes, (b) Participants' Cultural Impact of having Diabetes, and (c) Diabetes Educational Support and Resource Materials. Participants expressed great concern about their health outcomes from having diabetes.

Table 1

Summary of Focus group Themes

Categories	Cluster themes	Participant(s) presenting themes
Concerns	<ul style="list-style-type: none"> • Death • Medication and insulin • Family related • Affects youth • Complications 	1,2,3,5
Social Impact	<ul style="list-style-type: none"> • Loss of job, independence • Reduced socializing • Perceived as 'different' from others • Loss of traditional foods, hunting, gathering and cultural practices 	1, 2, 3, 4, 5
Additional resources	<ul style="list-style-type: none"> • Family camps • Books • Poems • Pow wow • Group support and counselling • Diet advice 	1, 2, 3, 4, 5
What's missing	<ul style="list-style-type: none"> • Music about diabetes • Linking adult and children education to diabetes • Pictures instead of words • Simplifying the message • Photos of the complications like on smoking cartons 	1, 3, 4, 5
Preferred format	<ul style="list-style-type: none"> • CDs • DVDs • Songs, poems, pictures • Variety for different age groups, literacy levels and people • Aim at adult and youth population, learn as a culture • Cooking classes • Email people about events, post 	1, 3, 4, 5, 6

	posters	
Traditional practices	<ul style="list-style-type: none"> • Education sessions based on talking circles, medicine wheel, healing physically and spiritually • Singing, drumming, using traditional practices as forms of exercise • Social gatherings • Diabetes support groups • Family camps, like the March break camp • How to eat more traditional foods, but still maintain a healthy diet 	1, 2, 3, 4, 5, 6
Other	<ul style="list-style-type: none"> • Smoking cessation importance • Long term complications • What is pre-diabetes vs. Diabetes? • Need to involve youth, as the older generations aim to take care of the younger members • Stress relation to sugar levels • Medications: what are they? Why are they used? 	1, 2, 3, 4, 5

Long-term complications from diabetes were a further concern to them. They vocalized when family members experienced damaging outcomes, such as amputations, kidney disease, and heart disease from diabetes, that largely impacted on their social well-being. Others spoke about family members who experienced financial losses due to coping with the complications of diabetes, which caused devastating outcomes in their lives.

Although there was a sense of participants being overwhelmed by all the complications of diabetes, participants showed concern about wanting to learn more about how to manage their diabetes, healthy eating, and staying physically active. Despite all the sadness on the outcomes of living with diabetes, participants showed courage in wanting to learn more on different aspects of diabetes management such as impact of physical activity. Participants also shared the sociocultural impact of diabetes. They shared the historical underpinnings of colonization that devastatingly changed their ways of living and disrupted their traditional practices. Participants spoke about how their diets had changed drastically from living off the land, and that now they are consuming foods that are causing a lot of health issues.

The next chapter combines the information obtained from the focus group with the knowledge gathered in the literature review to provide recommendations on the types of educational formats for diabetes educational centres within the Aboriginal communities.

CHAPTER FIVE: SUMMARY, DISCUSSION, AND RECOMMENDATIONS

This study was conducted to understand the cultural health beliefs in diabetes education amongst the Aboriginal population within a city in the Southern Ontario region. In this chapter, I provide recommendations for educational formats for diabetes educational programs within the Aboriginal communities. I discuss the themes that emerged from the analysis in the context of the research literature on diabetes education within Aboriginal communities and Aboriginal learning styles. This is followed by recommendations for diabetes education in diabetes education centres. Finally, I outline questions for further research and provide a few closing thoughts on the outcome of the research study.

Diabetes education is an important component for improving diabetes outcomes, thereby requiring a good understanding and knowledge to optimize care (Daly et al., 2009). Amongst the Aboriginal population diabetes is widely recognized as a serious health problem (Young et al., 2000). As a diabetes nurse educator working within an Aboriginal health centre, I conducted a focus group study to understand the cultural health beliefs in diabetes education amongst the Aboriginal population who have type 2 diabetes and to identify the educational format that will support education within diabetes educational centres in order to meet the needs amongst the Aboriginal population.

Discussion of Results

In the following section, I will compare and contrast the key themes from participants' feedback in the focus groups with Aboriginal knowledge, ways of learning, and the impact of colonization on education from the literature review. I discuss each of

these in order to identify key information to make recommendations on the type of format in diabetes education centres to optimize diabetes care.

Participants' Meaning of Diabetes

Feedback from participants confirmed the findings in the literature that diabetes is largely indicative of sociocultural alterations to diet and lifestyle endured by the Aboriginal people in the past few decades (Young et al., 2000). Participants expressed concerns about ending up with long-term complications of diabetes such as retinopathy, hypertension, and cardiovascular disease. It is well-established that complications of diabetes have systemic outcomes, such as kidney failure, eye disease, and hypertension (CDA, 2008). It is well-noted that the primary prevention of diabetes involves the learning process of healthy behavioral changes and a supportive environment (Young et al., 2000). Participants expressed that through education they can learn the necessary skills to manage diabetes. Participants wanted to learn the key concepts in diabetes care so that they do not end up with the devastating complications like some of their family members and/or friends. Clearly, participants voiced some of their challenges with diabetes and want to have a deeper understanding on the progression of diabetes. They also expressed having clear ideas of what they would like to learn about diabetes and how the learning should be delivered.

Adult learning is centered on adults' experiences and the success of their learning depends largely on the learning process (Kaufman, 2003). For example, Knowles (1980) provides a Eurocentric definition of adult learning (andragogy) as "the art and science of helping adults learn" (p. 44). Knowles also defined adult education as a learning process of the whole emotional, psychological, and intellectual being (Merriam, 2001), which

tied in with the participants' feedback. Similarly, the Aboriginal learning styles, such as the Role of the Elder (Stiegelbauer, 1996), can serve as a facilitator in group discussions and education. Furthermore, Sharing Circles are based on groups of individuals supporting and tackling problems within a community (Rothe et al., 2009). Participants voiced wanting to learn what they think will be most important for them to manage their diabetes and prevent long-term complications. Participants valued having rich cultural experiences on their health and had strong views on why diabetes is so prevalent within their families and communities. They attributed disruptive cultural practices as a direct result of colonization. They also talked about diabetes learning as being relevant to their current life situations. Participants showed an interest in learning about diabetes management that clearly centered on problem-based approaches rather than the conventional teaching approach such as didactics. The didactic approach primarily involves the health care professional providing the information on diabetes management and limits the participation of patients. In contrast, participants showed a quest to learn which was motivated by internal drives, such as their own challenges in diabetes management, as opposed to external teachings outlined by health care professionals in diabetes education centres.

Participants' learning needs were connected to Knowles' (1980, p. 47) five assumptions in adult learning:

1. adults are independent and self-directed,
2. through experiences have accumulated rich resource for learning,
3. they value learning that integrates with the demands of everyday life,

4. they are more interested in immediate, problem-centered approaches than in subject centered ones, and
 5. they are more motivated to learn by internal drives than by external ones
- (Kaufman, 2003).

Knowles (1975) also noted that educators should serve as facilitators and aid the adult to become more self-directed; however, participants did not feel that health care professionals met all their learning needs in diabetes management. Research has also suggested that health care professionals who work within the Aboriginal communities need to customize their treatment and educational programs to meet the cultural needs of their client population (Young et al., 2000). Experience in developing programs to meet the cultural needs of the Aboriginal population may be the way to foster the process towards optimal health in diabetes education.

I have also compared and contrasted participants' feedback and the related literature in relation to a Eurocentric learning theory. Prior to colonization, Aboriginal adult learning comprised of continued growth of mental, physical, emotional, and spiritual aspects. Indigenous knowledge has always existed (Battiste, 2005), but was not always recognized from a Eurocentric perspective. The learning for the adults comprised of promoting specific individual skills, parenting, and teaching which involved negotiations and mediation and cooperation within the entire community (Sanderson, 2010).

Participants viewed diabetes as devastating, representing uncertainty in their lives and highly visible complications. Throughout the focus group session participants shared hope in learning about diabetes through traditional practices (e.g., group work and

community events) to involve families in diabetes events, thereby, enhancing knowledge from a very early age about diabetes through ceremonial circles and Pow-wow events. Ceremonial circles have served as a sacred ritual in healing or cleansing of the body, mind, and spirit (Doucette et al., 2004). Participants also expressed that circles serve as a means to unify people in the learning process. Sharing circles have been used to teach culture, promote health, and gain support from counselors (Rothe et al., 2009). Sharing circles can provide a rich source of information while still maintaining a culturally sensitive component. As noted by Rothe et al. (2009), Sharing Circles can be an effective way to enhance learning; similarly, participants also expressed wanting to have group work and circles for diabetes education.

Another key finding from participants echoed in the literature was the role of the Elder in the learning process. Elders play a vital role in Aboriginal communities and are seen as symbolic figures. At a very early age in life a few members within the community are selected to be role models for the community (Stiegelbauer, 1996) and, ultimately, become Elders. Elders serve to uphold the Aboriginal teachings and assist with group and ceremonial events within the community. Based on the findings from the focus group, an Elder can serve as an important team member of diabetes management by facilitating group sessions and traditional practices to optimize diabetes care.

Sociocultural Impact on Participants Who Have Diabetes

The participants expressed an array of deep emotion and feelings about the effects of colonization that negatively impacted on them, their families, and the community at large. Colonization defragmented their society and participants stated feelings of sadness at the loss of their values. Participants felt many of their cultural practices have been lost

through colonization and this is a factor in why diabetes is so prevalent in the Aboriginal communities. For example, colonization forced the relocation of Aboriginal communities with inadequate services and disruption of family units by the placement of children in institutions (Adelson, 2005), which led to increased rates of infectious disease and chronic diseases such as mental health, heart disease, and diabetes.

Participants shared their views of the sociocultural impact of having diabetes, which caused stress, changes to dietary issues, and decreased levels of physical activity. Participants felt many of their lifestyle behaviors have changed through colonization. Social cognitive theory and some Aboriginal learning theory form a framework in understanding human behavior. For example, Bandura (1977) provided a framework to understand human behavior. Similarly, in the Aboriginal learning styles, such as the Sharing Circles, people learn by watching each other (Rothe et al, 2009). Participants voiced loss of their cultural identity from a traditional lifestyle and became more dependent and influenced by Western society. Participants wanted to make changes in their dietary intake, physical activity, and the cultural aspects of having diabetes. Bandura's (1977) theory is based on the premise that behavior is determined by expectancies and incentives. Under expectancies of the theory, participants have shown a sense of wanting to learn about their environment while wanting to make behavioral changes. Participants wanted to discover and learn about their diabetes. Under incentives, participants valued changing their lifestyle, as they believed that having diabetes poses a threat to their health. Therefore, they expressed wanting to change their current habits and make lifestyle changes for a better outcome in their diabetes.

Participants saw themselves as part of a whole society observing and learning from others' strengths and successes. The missing component regarding Bandura's theory is self-efficacy. Participants did not voice the importance of setting individual goals and self-reflective behaviors but rather learning outcomes as an entire unit. Self-efficacy, thus, became a communal rather than individual aim. Through Indigenous knowledge, specifically the Medicine Wheel we can provide a framework to address participants' views of the cultural impact of having diabetes. The four aspects of the Medicine Wheel are mental, physical, spiritual, and emotional.

The Medicine Wheel has been used for generations amongst the Aboriginal communities as a teaching tool that represents some concept of change, balance, healing and renewed hope as a whole (person, families, and communities; McCormick, 1996). The Medicine Wheel provides a framework to address participants' views of the cultural impact of having diabetes. Participants viewed their diabetes as not being in alignment with the four aspects of the medicine wheel. They believed that changes in their lifestyle were mainly attributed to colonization, which has caused disruption in their mental, emotional, physical, and spiritual being. They expressed feelings of not being part of a whole. With the use of the medicine wheel teachings, participants felt they could achieve health in a positive manner and gain a sense of balance and wholeness, thereby impacting their diabetes management in a positive manner.

Diabetes Educational Support and Resource Materials

Participants were able to provide valuable feedback on diabetes educational support and resources. Participants expressed that when attending diabetes education centres, they received information on diabetes management; however, most resource

materials were not culturally relevant for them, as such did not include traditional learning activities.

Within the regions of Ontario, the Ontario Diabetes Strategy (2012) coordinates the all-diabetes education centres, providing uniform resources throughout the diabetes education centres. Most resources are translated into different languages but are not specifically designed to meet the cultural needs of diverse populations (Khan & Mian, 2010). The participants expressed receiving information (e.g., handouts) that was difficult to understand and hard to comprehend. Participants shared their frustrations of not being able to get appropriate resources to meet their learning needs. For example, one participant brought up the need to have resources with simple wording and supported the idea of having illustrations and simple pictures for a comprehensive understanding of diabetes. They want information to be presented in easy to access formats. The CDA (2008) develops resources for diverse populations. Clearly, participants do not find some of these resources beneficial to their learning needs. Based on participants' feedback, diabetes education centres would need to include culturally relevant programs, resources with simple wording, and the use of pictures and illustrations to meet the learning needs of the Aboriginal people. Participants also noted wanting simple and easy to read information on medications for diabetes but voiced wanting to first try traditional practices and medicines. According to Devanesen (2000), traditional medicine also seeks to provide a meaningful explanation for illness for the person, family and community. Therefore, resources should be developed to provide information on traditional medicines and evidenced based medicines.

Participants spoke about having group sessions. The ODS (2008), has devised several PowerPoint learning tools for group sessions; however, participants want diabetes group sessions to be designed from a cultural perspective which include, for example, songs, drumming, and dancing. Participants also want to be able to set the learning agenda for group sessions; for example, they would like to have traditional cooking classes, have sessions whereby they can talk about their experiences and learn from each other. Incorporating activities that include group interactions is in keeping with Aboriginal knowledge (Battiste, 2005). The knowledge is accumulative through the experiences, teachings, and in “ways of knowing” and is passed on from one generation to the next (Battiste, 2005).

In relation to Bandura’s theory, the social elements to learning can be simply through observing others, talking about a situation, and being a role model to others. As evident by participants’ feedback, programs can include factors such as sharing circles, drumming, songs, and dancing with social influences. The blend of Aboriginal traditional teachings and social learning theories can create opportunity for effective diabetes programming.

Despite the literature search, one of the cultural barriers to healthcare is that health care professionals are not fully trained to provide cultural sensitive health education (Reading, 2003). This fact was not raised by any of the participants. Participants did not express frustration or lack of cultural knowledge by health care professionals. Rather, the emphasis by participants was more on wanting resources that are applicable to their learning the lack of types. The main themes noted were directly related to the resources not meeting their cultural needs. Participants also voiced a concern wishing diabetes sessions

would be centered on the seven grandfather teachings. According to the Elder from the health centre, the seven grandfather's teachings are: Wisdom, Love, Respect, Bravery, Honesty, Humility, and Truth. The seven components of the grandfather teachings are based on the Creator's Natural Laws for all individuals to uphold. In my literature review, there was no information related to diabetes and the seven grandfather teachings.

Section Summary

I have compared and contrasted participant feedback with the literature review. Clearly, participants recognize there is a gap in the delivery of diabetes educational materials and type of learning format. Participants were able to provide valuable subjective data on how best they would like to have diabetes sessions provided to them to meet their learning needs. The themes that were configured through the focus group feedback and the review of both Eurocentric and Indigenous knowledge should form the basis of educational formats for diabetes classes.

Recommendations

The purpose of the research study was to understand the cultural health beliefs in diabetes education amongst the Aboriginal population in a city in the Southern Ontario region through focus group research. It was my hope to make recommendations for a culturally sensitive patient care outcome based on the data obtained from participants in the focus group and from the literature review. Drawing upon the concepts from the participants and literature review, what is needed is perhaps a critical engagement between two forms of knowledge: Eurocentric learning and Indigenous knowledge.

Having completed the focus group research, I had to revisit the literature to tease out more information related to the Western construct of theory alongside Indigenous

knowledge. There is no doubt that education remains the cornerstone in diabetes management skills, however there still remains inconsistencies in educational interventions (Elasty, Ellis, Brown, & Pichert, 2001). Although there exists educational resources in diabetes for different ethnic populations, most of these resources are translated from English into another language. This kind of translation does not provide culturally appropriate resources. The educational resources should be delivered in a culturally appropriate manner to increase clinical outcomes (Khan & Mian, 2010).

Most institutions continue to function from a Eurocentric perspective and use European ways of knowing as a point of reference (Dumbrill & Green, 2008), thereby creating a huge gap in the delivery of material to diverse population. To address appropriate learning methods, the challenge today is to emphasize an Indigenous epistemology (Kenny, 2004). Talking Circles, Pow wow, and story telling are some of the teaching methods used in Indigenous communities that illicit learning transformation (Dumbrill & Green, 2008; Wilbur, Wilbur, Garrett, & Yuhas, 2001). The repression of Indigenous ways came with European colonization, thereby inflicting a different value system on the Aboriginal culture (Kenny, 2004). Inadequate knowledge in many ways continues to deprive Aboriginals as a Eurocentric perspective continues to command much of the education perspective of education (Dumbrill & Green, 2008).

Based on the synthesis of the literature review and the themes from the study, the recommendations are made on the different formats that could be useful in diabetes education. These recommendations are grouped from the seven categories and three themes to develop resources. The resources can be delivered in the format of activities, electronics, and educational materials related to diabetes:

1. Activities will include: sharing circle, group support classes, traditional events, dancing, Pow-wow, Seven Grandfather Teachings, family events, and community events related to diabetes.
2. Electronic format will include: DVDs and CDs on singing, poems, dancing to include diabetes related teachings.
3. Handbook format will include: Easy to read pamphlet, ring booklets with pictures, simple wording on diabetes, poems, and songs.

Participants provided a rich understanding of some of the barriers they have experienced in diabetes care. They have also provided useful information on the various types of learning format such as interactive learning, culturally diverse learning activities, and importance of holistic learning, which could potentially play a key role in diabetes education. Despite participants' commitment to include aspects of their Aboriginal culture (e.g., Pow wow, dancing, and poems) within diabetes education, they also expressed inclusion of domains of European knowledge such as group sessions, pamphlets, DVDs, and booklets.

Final Word

In reading the research related literature and discussing the data from the participants in the focus group research study, there is no doubt that meeting the cultural needs of the Aboriginal population in diabetes care is challenging and complex. What is interesting though, despite discussing the complexities and challenges, participants believed that diabetes education could be delivered to meet their cultural needs. Although the study represented a small sector of urban Aboriginals in Southern Ontario, the knowledge that their learning needs can be met gives us hope for future development of

diabetes educational programs to include cultural components. It also emphasizes the need to include both Aboriginal knowledge and Eurocentric knowledge when designing and developing diabetes educational programs within the Aboriginal communities.

As a diabetes nurse educator working within the Aboriginal community, the findings of this study will contribute to advance my clinical practice. Furthermore, it will help me to construct culturally sensitive diabetes programs in a more meaningful way, as Aboriginal people need to learn in a way that brings meaning to their lives to effectively manage diabetes and combat the epidemic within their communities.

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Appendix
Focus Group Questions

1: What does diabetes mean to you?

2: Do you find that having diabetes affects your interaction with people and the cultural practices within your community? If so, in what way?

3: What information or handouts have you found helpful in managing your diabetes?

4: What additional information/resources would be helpful in your diabetes management?

5: What type of format would be most useful to you for receiving information on diabetes?

6: Would the support and mentorship of sharing circles and traditional practices (such as smudging) for groups of Aboriginal people with diabetes be helpful to you?

If so, in what ways?

7: Is there anything else you'd like to tell me about diabetes management and/or education?