Perspectives in Practice

Partnerships to Address the Diabetes Epidemic in Aboriginal Communities in Alberta

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ABSTRACT

OBJECTIVE

Aboriginal communities in Canada face unique challenges regarding type 2 diabetes. Screening for diabetes and its complications offers potential benefit, but the traditional biomedical healthcare model can fail Aboriginal patients with respect to diabetes education and management. Effective healthcare delivery to Aboriginal peoples must overcome geographical, economic, political, cultural and sociohistorical barriers.

METHODS

Capacity building through partnerships between Aboriginal communities, government agencies, researchers and local healthcare providers can integrate the biomedical model of healthcare with traditional Aboriginal healing models. In Alberta, Canada, such partnerships include the Aboriginal Diabetes Wellness Program, the Mobile Diabetes Screening Initiative and the Screening for Limbs, Eyes, Cardiovascular and Kidney Complications program.

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RÉSUMÉ

OBJECTIF

Le diabète de type 2 constitue un défi unique pour les collectivités autochtones canadiennes. Le dépistage du diabète et des complications du diabète a ses avantages, mais le modèle de soins de santé biomédical traditionnel peut décevoir les Autochtones en ce qui a trait à la formation diabétique et au traitement du diabète. Pour que la prestation de soins de santé aux Autochtones soit efficace, il faut surmonter des obstacles géographiques, économiques et socio-historiques.

MÉTHODES

Le renforcement des capacités grâce à des partenariats entre les collectivités autochtones, les organismes d'État, les chercheurs et les pourvoyeurs de soins locaux peut intégrer le modèle de soins de santé biomédical et les modèles de guérison traditionnels des Autochtones. En Alberta, au Canada, le programme de mieux-être diabétologique chez les Autochtones, l'initiative mobile de dépistage du diabète et le programme de dépistage des complications touchant les membres, les yeux, l'appareil cardio-vasculaire et les reins sont des exemples de tels partenariats.

RÉSULTATS

Les partenariats notaveurs créés en Alberta démontrent comment le renforcement des capacités favorise la prise en charge individuelle et collective et peut aboutir à la création de programmes de dépistage, de formation et de traitement efficaces et adaptés à la réalité culturelle. La satisfaction des patients et l'amélioration de l'initiative personnelle mises en évidence par les évaluations des programmes montrent qu'un mode d'approche holistique est avantageux.

DISCUSSION

Les programmes adaptés à la collectivité et gérés par la collectivité sont essentiels pour favoriser la prise en charge, la participation et la viabilité des programmes dans les collectivités autochtones.

RESULTS

These innovative Alberta partnerships demonstrate how capacity building fosters individual and community empowerment and can produce effective, culturally appropriate diabetes screening, education and management programs. Community satisfaction and improved patient self-care, demonstrated through program evaluations, showed that integrated, holistic approaches were beneficial.

DISCUSSION

Community-driven, community-based programs are key to facilitating empowerment, involvement and program sustainability within Aboriginal communities.

INTRODUCTION

Type 2 diabetes presents unique challenges for Aboriginal peoples. Virtually unheard of in Aboriginal populations prior to the 1950s (1), national estimates from the First Nations and Inuit Regional Health Survey in 1999 showed prevalence rates of diabetes to be 8% and 13% among First Nations men and women, respectively (2). The prevalence of diabetes in Aboriginal children and adolescents in the province of Manitoba, Canada, is ~1% (3).

Approximately 92 000 First Nations people reside in the province of Alberta, Canada (4), which represents 3% of the province's population (5). The age-standardized prevalence rate of diabetes among the First Nations population is ~8.5%, compared with 4.5% among the general population (6).

Beliefs about illnesses are mediated through culture, and individuals tend towards healing traditions rooted within their own culture (7). A common understanding among Aboriginals is that the diabetes epidemic correlates with the decline of their traditional way of life (8).

Screening within Aboriginal communities to identify undiagnosed diabetes may prevent or impede the progression of harmful and costly complications. However, Aboriginal individuals may not want to know they have diabetes for fear of consequences in the community, at home or at work, and Aboriginal communities collectively may feel vulnerable having demographic and family information gathered. Thus, each community must decide collectively whether it wants systematic screening, which is consistent with the Canadian Diabetes Association (CDA) Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada recommendation that "diabetes programs and services should be culturally appropriate, community-based and respectful of age, gender and socioeconomic condition" (9).

To empower Aboriginal individuals and communities toward self-management, diabetes programs must employ culturally appropriate perspectives, incorporate community consultation and involvement, utilize traditional Aboriginal modes of information-sharing (i.e. talking circles) (8) and overcome geographic, economic and sociohistorical barriers.

NATIONAL AND PROVINCIAL STRATEGIES

Recent national and provincial partnerships between government bodies, Aboriginal communities and healthcare professionals are addressing the Aboriginal diabetes epidemic. In Alberta, mobile screening programs such as Screening for Limbs, Eyes, Cardiovascular and Kidney Complications (SLICK) and the Mobile Diabetes Screening Initiative (MDSI), and educational programs such as the Aboriginal Diabetes Wellness Program (ADWP), integrate mainstream medical approaches with Aboriginal healing traditions.

Aboriginal Diabetes Initiative

In 1999, the Canadian government committed $58 million to create the Aboriginal Diabetes Initiative (ADI) to facilitate comprehensive, collaborative and integrated approaches to diagnosing and managing diabetes in Aboriginal peoples (10).

ADI includes 2 components administered regionally through Health Canada's First Nations and Inuit Health Branch (FNIHB): the Métis, Off-reserve Aboriginal and Urban Inuit Prevention and Promotion Program funds culturally appropriate prevention and health promotion programs; the First Nations On-reserve and Inuit in Inuit Communities Program facilitates prevention and promotion, care and treatment, and lifestyle support programs.

SLICK

SLICK was developed in partnership with Alberta First Nations, FNIHB and the University of Alberta, Edmonton, Alberta, Canada. SLICK aims to reduce the burden of diabetes among First Nations communities by providing access to a comprehensive, coordinated screening program for limb, eye, cardiovascular and renal complications.

For Aboriginal people living on-reserve, geographic and economic barriers often prevent access to standard diabetes care (i.e. arranging for travel to major urban centres to see a diabetes specialist, accommodation while there).

SLICK mediates these barriers by taking 1-stop screening services to First Nations communities. Patients receive

laboratory results, as well as diabetes education and counselling, at the time of service delivery. A single van visit is depicted in Figure 1. Counselling and education incorporate information relevant to Aboriginal lifestyles (e.g. traditional foods) and address the challenges of living on-reserve (e.g. lack of access to nutritious foods or physical activity facilities). Two SLICK vans equipped with portable lab instruments and a retinal camera have travelled to 44 Alberta First Nations communities to screen for diabetes complications and provide culturally appropriate education and counselling. Retinal photographs are delivered to the Teleophthalmology Unit of Royal Alexandra Hospital, Edmonton, Alberta, where they are diagnosed and a report sent back within 2 weeks. Follow-up or treatment is arranged by a central teleophthalmology coordinator.

Patient and community empowerment, and integration and coordination of community services (i.e. family physicians, community health nurses, community health representatives, personal care attendants and other healthcare providers) are key SLICK goals. SLICK vans are staffed by nurses and retinal photographers, who are either Aboriginal or have appropriate experience and cultural awareness. Participants are either enrolled through self-referral in response to advertising or are referred by community healthcare professionals.

Between December 2001 and July 2004, the SLICK program evaluated 1446 individuals with diabetes and screened 600 individuals without diabetes. Total number of visits was 3002 (some individuals had as many as 4 visits).

An initial evaluation of SLICK showed the predictable burden of disease and gaps in service provision and treatment, but also revealed significant patient and community satisfaction. Financial analysis showed that individual service costs were $356.55, compared with $504.89 for the same service delivered through conventional means (i.e. transportation to a town or city, standard laboratory services, visit with a general practitioner and/or diabetes educator) (11).

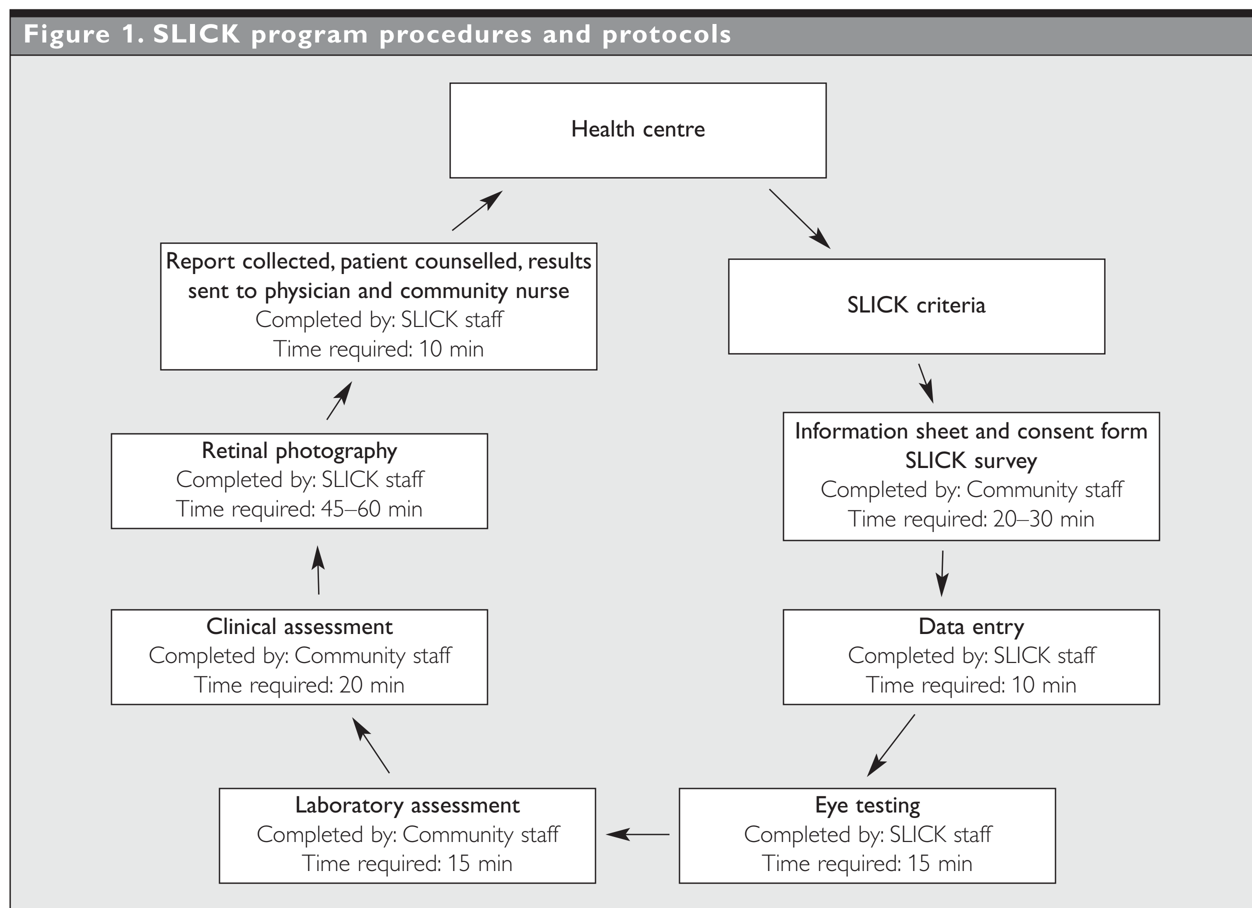
Alberta Diabetes Strategy

In May 2003, the government of Alberta launched the 10-year Alberta Diabetes Strategy (6). It was recognized that an Aboriginal component was appropriate.

MDSI

The MDSI, a partnership among Alberta Health and Wellness, the University of Alberta and Métis communities, was launched in November 2003. MDSI representatives travel by van to rural Métis settlements, operating with similar equipment, protocols and staff composition as SLICK. MDSI

Figure 1. SLICK program procedures and protocols



SLICK = Screening for Limbs, Eyes, Cardiovascular and Kidney Complications

additionally conducts seminars for local healthcare providers on diabetes management and the CDA's clinical practice guidelines. From November 2003 to October 2004, the MDSI program saw 885 unique patients: 719 attended for diabetes screening, and 166 were screened for diabetes complications.

ADWP

Healthcare in Alberta is delivered through 9 regional health authorities governed by Alberta Health and Wellness. The Capital Health Regional Authority serves the city of Edmonton, Alberta, and surrounding areas, including some First Nations communities. Edmonton serves as a referral centre for Northern Alberta, where many isolated rural Aboriginal communities are underserviced.

Since 1995, Capital Health has operated the innovative ADWP, based at the Royal Alexandra Hospital, and serving First Nations, Inuit and Métis people. ADWP staff are either Aboriginal or have appropriate experience and cultural awareness.

ADWP's 5 components target patients and their support network:

- a 3-day program that incorporates diabetes education and management;
- a 3-day follow-up program that provides additional skills;
- a 1- to 3-day outreach program for urban and rural centres;
- Professional Relationships in Aboriginal Diabetes Education (PRIADE), a 3-½ day cultural sensitivity workshop for healthcare professionals; and,
- A Way of Life for Families (WOLF), which brings diabetes prevention and health promotion to urban and rural classrooms (12).

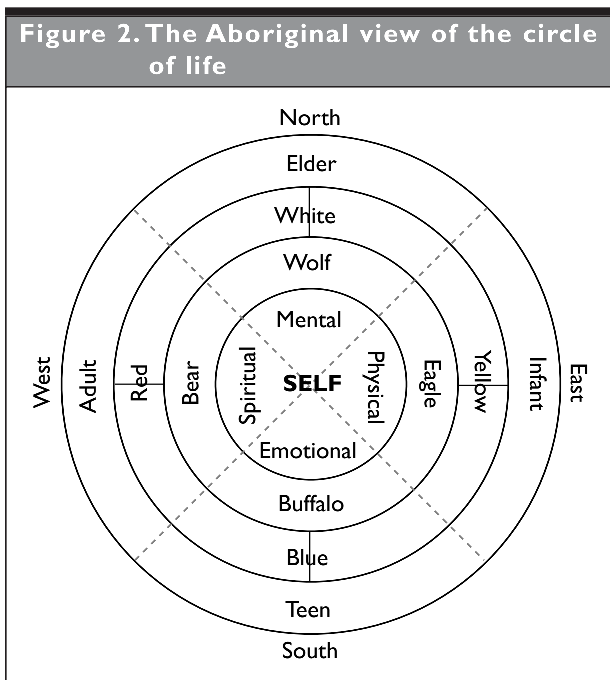


Figure 2. The Aboriginal view of the circle of life

In the Aboriginal view of the circle of life, the first (outer) circle shows the 4 directions; the second circle represents developmental stages; the third circle represents the 4 colours and the 4 races; and the fourth circle relates to the 4 animals.

ADWP was developed in consultation with Aboriginal elders and integrates mainstream medical care with the Aboriginal healing model. Patients and their families are enrolled in ADWP programs by referral from their family physician, diabetes specialist or community health nurse, or through the SLICK or MDSI programs. Aboriginal elders provide guidance throughout each program, along with a nurse and dietitian. Accommodation is provided for the duration of the program. For out-of-town participants, transportation to Edmonton is facilitated through FNIHB or by community health centres, as needed.

Standard diabetes education topics are addressed in a culturally appropriate context: e.g. nutrition information incorporates Aboriginal foods such as wild game, bannock, and roots and berries; lifestyle counselling includes such traditional Aboriginal activities as hunting and dancing. The program addresses specific challenges facing Aboriginal people in both rural and urban communities.

ADWP's framework incorporates elements of Aboriginal spirituality and ceremony that build on traditional methods of community participation and encourage interrelatedness and experience sharing (13).

ADWP's integrated framework successfully mediates the barriers between mainstream healthcare and traditional healing methods. Participants receive important information about diabetes through a medium that reconciles both mainstream and Aboriginal perspectives.

ABORIGINAL HEALING APPROACHES

Traditional Aboriginal healing is predicated on the principles of interrelatedness, wholeness and balance/harmony; illness represents a disruption of balance, and health is restored when balance is restored (14). The circle is an important symbol in Aboriginal culture, as it is representative of interconnected relationships. The number 4 is also key; divided into 4 quadrants, the circle represents the medicine wheel, which illustrates 4 realms of being: spiritual, emotional, mental and physical (Figure 2).

Both the circle and the number 4 are interwoven into Aboriginal beliefs and rituals, e.g. sweet grass, which is used in purification and sacred ceremonies, has a 4-part stalk, which represents mind, body, feelings and spirituality. In Aboriginal ceremonies, the end of the stalk is tied with a circular knot to symbolize the importance of boundless spirituality.

The Aboriginal world view incorporates 4 sacred elements necessary to life: water, air, fire/thunderbird and Mother Earth. These elements are utilized within sacred Aboriginal ceremonies (e.g. the sun dance, powwows, pipe ceremonies), which also incorporate the circle symbol.

Talking circles embody the strong oral tradition of Aboriginal culture and provide therapeutic physical and

emotional outlets (13). Talking circles are used in Aboriginal culture to pass knowledge and traditions from one generation to another; in the context of health promotion programs such as ADWP, they provide a culturally appropriate format for transmitting knowledge.

Integrating the mainstream medical model with traditional Aboriginal healing models facilitates development of more effective screening, education and diabetes management programs that empower individuals and communities.

CONCLUSION

SLICK, MDSI and ADWP are important innovations in Aboriginal healthcare. However, they are not without challenges: geographical, economic and language barriers cannot always be mitigated. All 3 programs are institutionally run, which may perpetuate a top-down hierarchy, thus reinforcing inappropriate, paternalistic approaches. Community responsibility for sustaining intervention activities is crucial to the successful diagnosis and management of diabetes in Aboriginal populations.

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AUTHOR DISCLOSURES

No duality of interest declared.

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