Original Article

Shared medical appointments for Innu patients with well-controlled diabetes in a Northern First Nation Community

Yordan Karaivanov, MD[1], Emily E. Philpott, MA[2], Shabnam Asghari, MD, PhD[2], John Graham, BA[3], David M. Lane, MPH[2]

[1]Labrador-Grenfell Health, Memorial University of Newfoundland, Newfoundland, Canada, [2]Memorial University of Newfoundland, Newfoundland, Canada, [3]Graham Consulting Services, Newfoundland, Canada

Correspondence to: Yordan Karaivanov, yordan.karaivanov@lghealth.ca

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Abstract

Introduction: The prevalence of diabetes and its complications in the Innu community of Sheshatshiu is high. We wanted to determine if shared medical appointments (SMAs) could provide culturally appropriate, effective treatment to Innu patients with relatively well-controlled diabetes, as an alternative to standard, 'one-on-one' care.

Methods: We conducted a mixed-method study including a randomised controlled trial comparing standard care versus SMAs for patients aged 18–65 years with haemoglobin A1C (HbA1C) of ≤7.5%, followed by a qualitative study using semi-structured interviews with patients who attended SMAs.

Results: Among 23 patients, 13 received the intervention. There were no significant differences of HbA1C level or HbA1C percentage of change between intervention and control groups at baseline, 6 months or 12 months. There were no statistical differences between standard care and SMA groups, concerning mortality or the need for haemodialysis. The qualitative analysis found that patients generally enjoyed the SMA model and the peer support and learning benefits of the SMAs. Patients did not believe that the SMA model was more or less culturally appropriate than standard care, but the majority said they felt that the SMAs were good for the community and could be a good venue for incorporating Innu healthy–lifestyle knowledge into medical diabetes care.

Conclusions: SMAs may be an efficient way to manage well-controlled diabetic patients in the Innu community of Sheshatshiu and to provide peer support and opportunities for learning and incorporating community-specific knowledge into care.

Keywords: Diabetes care, First Nations Community, indigenous health, shared medical appointments

Résumé

Introduction : La prévalence du diabète et de ses complications est élevée dans la communauté innu de Sheshatshiu. Nous voulions déterminer si, plutôt que la norme de soins personnalisés, les rendez-vous médicaux partagés pourraient dispenser un traitement efficace et culturellement approprié aux patients innu dont le diabète est relativement bien maîtrisé.

Méthodologie : Nous avons réalisé une étude à méthodologies mixtes, soit une étude avec répartition aléatoire et contrôlée pour comparer la norme de soins aux

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rendez-vous médicaux partagés auprès de patients de 18 à 65 ans dont le taux d'HbA1C était inférieur ou égal à 7,5 %, suivie d'une étude qualitative ayant eu recours à des entrevues semi-structurées auprès de patients s'étant présentés à des rendez-vous médicaux partagés.

Résultats : Treize patients sur 23 ont reçu l'intervention. On n'a observé aucune différence significative du taux d'HbA1C ou du pourcentage de variation du taux d'HbA1C entre les groupes intervention et témoin, au départ, et à 6 ou 12 mois. On n'a observé aucune différence statistique entre les groupes norme de soins et rendez-vous médicaux partagés en ce qui concerne la mortalité ou le besoin d'hémodialyse. L'analyse qualitative a indiqué qu'en général, les patients appréciaient le modèle des rendez-vous médicaux partagés ainsi que le soutien par les pairs et l'apprentissage qu'ils en tiraient. Les patients ne croyaient pas que le modèle des rendez-vous médicaux partagés était plus ni moins approprié que la norme de soins sur le plan culturel, mais la majorité était d'avis que les rendez-vous médicaux partagés étaient favorables pour la communauté, et seraient l'occasion d'incorporer les connaissances sur le mode de vie sain innu dans les soins médicaux du diabète.

Conclusions : Les rendez-vous médicaux partagés seraient une façon efficace de prendre en charge les patients dont le diabète est maîtrisé de la communauté innu de Sheshatshiu, et de fournir un soutien par les pairs, et l'occasion d'apprendre et d'incorporer dans les soins les connaissances sur la communauté.

Mots-clés : Soins du diabète, rendez-vous médicaux partagés, communauté des Premières Nations, santé autochtone

INTRODUCTION

Diabetes is a major health concern for the Innu community of Sheshatshiu in Central Labrador. The community has seen a dramatic increase in the number of people experiencing complications and requiring haemodialysis as a consequence of poorly controlled diabetes and has identified reducing diabetes rates as one of their main health priorities in their community-led Innu healing strategy.[1] One model of diabetes care that could offer an effective alternative for Innu patients is shared medical appointments (SMAs).

SMAs are recognised as an efficient strategy for improving primary healthcare.[2] With SMAs, patients sharing a common condition attend medical appointments in a group, as an alternative to standard care (one-on-one appointments with a single practitioner).[3] SMAs include social interaction, an educational component and evaluation and consultation with a physician. Pharmacists, diabetic educators, dieticians and others are included in SMAs as well. Therefore, SMAs have the added benefits of improving patient access to allied health providers. Not only does the model allow patients to access multiple practitioners at a single appointment, but also the cost of care is reduced through the simultaneous provision of a variety of services to multiple patients at a time.[3]

For indigenous communities, including First Nations, 'health' is often understood to be held in a collective sense, dependent on relationships and the interconnectedness of all people and things; and as a holistic concept, encompassing the mental physical, spiritual and emotional aspects of well-being.[4-6] For this reason, we hypothesised that the nature of SMAs could be a proper fit for Innu patients as they take a community-oriented and holistic approach to diabetes care and education. We aimed the study at patients with relatively well-controlled diabetes. Our rationale was that if we could provide relatively well-controlled diabetics with good care through the SMA model, resources would be freed up that could be directed at patients suffering from complications of diabetes. The community's leadership wanted us to implement the SMAs on a trial basis, in conjunction with staff of the local health authority. The research objectives were (1) to examine the effect of SMAs on patients' glycaemic control compared to standard care for relatively well-controlled, Innu diabetic patients in Sheshatshiu and (2) to identify the patients' perspectives on SMAs in comparison to standard care.

METHODS

Study design

We employed a mixed-method approach to address our research question[7] in the Innu community of Sheshatshiu near Goose Bay, Newfoundland and Labrador. The community has a population of about 1000.

Quantitative investigation

A randomised control trial (RCT) compared the effects of SMAs with standard care on glycaemic control (haemoglobin A1C [HbA1C] change) as an indicator of patients' health outcomes at the only clinic in the community. A group of relatively well-controlled (HbA1C of ≤7.5%) diabetic patients underwent a trial of 6 months of SMAs. Their HbA1C levels were compared to a control group, who received 6 months of standard, individual appointment care.

Qualitative investigation

Patient perspectives were gathered through semi-structured interviews with patients who participated in the SMA trial. The interviews aimed to understand the patient views on SMAs as a model of diabetic care for themselves and their community and how they compared to standard care. Understanding patient perspectives allowed us to more fully evaluate the efficacy and suitability of the SMA model for patients in the community, as indigenous peoples' perspectives and knowledge should be integral to any research that addresses their communities' health.[8,9]

Selection and description of participants

The patients recruited for the study were Innu diabetic patients who attended the only local clinic providing diabetes care in the community. All Innu diabetic patients in the practice with an HbA1C level ≤7.5% on their most recent test before recruitment, who were not pregnant, and who were within the ages of 18–65 years were invited to participate in the study (n = 27). A well-controlled diabetic patient was defined as a patient whose HbA1C levels were <7.5%. This threshold was chosen based on clinical knowledge of the condition of diabetic patients within the practice in comparison to other diabetics in the community.

Recruitment occurred during October and November 2016. Patients who were willing to participate received a description of the trial in Innu-Aimun, the community's primary language, from a local research assistant. They were provided with informed consent form, given the opportunity to ask questions and provide or decline consent to participate.

The patients were randomised into an intervention and control group. Simple randomisation was used for a 1:1 allocation ratio.

Quantitative study: Randomised control trial

Intervention

Patients in the intervention group participated in 6 monthly SMAs over a period of 6 months beginning in January 2017 at the community clinic. Each was 45 min, including an introduction by the family physician, presentations by a dietician or diabetic educator, time for questions and free discussion. At each appointment, each patient was consulted by the physician, their blood pressure was measured and necessary prescriptions were provided. SMAs were conducted in English, with an Innu-Aimun translator present to assist patients, if needed. A summary of SMAs and standard care is provided in Table 1.

Control

The control group continued to receive standard care at the same community clinic. This included their typical one-on-one appointments with their physician and other healthcare providers (diabetic

Table 1: Description of intervention and differences between shared medical appointments and standard care

SMAs
Appointments occurred once per month, for a period of 6 months
Up to 13 patients attended each appointment at the same time
Appointment time of 45 min
Appointments include
Introduction by physician
Education session with RN diabetic educator, dietician and/or community diabetes worker
Individual consultation and assessment with physician, including medication checks, blood pressure checks, questions and answers
Time for questions and answers with all practitioners and other group members

SMAs: Shared medical appointments

educators, community health workers and dieticians), on an as-needed basis. All participants were patients within the same physician's practice at the same clinic and also had access to the same additional practitioners, to control for variation in care and services.

Outcomes

The primary indicator of health outcome was HbA1C. HbA1C was measured at baseline, after the 6 months of intervention and again at 12 months, for both intervention and control groups. HbA1C levels were determined through blood samples collected and analysed by laboratory technicians with the regional health authority. We also gathered and followed patient mortality and numbers of patients requiring haemodialysis. Characteristics such as sex and age were also gathered at baseline.

Follow-up

Patients in both the intervention and control groups were followed up for 1 year, from January 2017 to January 2018. The intervention ran for a period of 6 months beginning in January 2017. After that, patients in the intervention group proceeded with standard care, as needed. Patients in the control group attended standard care throughout the 12-month period.

Statistical analysis

First, a descriptive analysis was conducted to gain a picture of the baseline characteristics of each group. Second, Chi-square test and *t*-test were employed to compare the two groups. Finally, we used repeated-measure ANOVA to assess differences between the two groups for HbA1C levels and change in HbA1C levels, at baseline, 6 months and 12 months. The *P* value at the significance level was defined as 0.05. Intention-to-treat analysis was performed. Statistical analysis was conducted using SPSS (24.0.0.0).

Qualitative study

To identify the patient perspectives on SMAs, all patients who participated in the SMAs were invited to a semi-structured interview with a research assistant who had expertise in qualitative interviews. The interview questions' guide included benefits and barriers of the SMA approach and how patients felt they learned from the SMAs compared to standard care. In addition, the interview provided opportunity for participants to elaborate on suitability of SMAs for the community, including how culturally appropriate SMAs were for Innu patients' care.

The interviews lasted for approximately 10–30 min and took place at the patient's convenience in a non-clinical room at the community clinic. Although we had the option to conduct the interviews with an interpreter, all participants were willing and able to conduct the interviews in English. Interviews were audio recorded, later transcribed and analysed using thematic analysis.[10,11] In addition, responses were organised by interview question to provide a summary of patient responses per topic. A project research assistant with training in qualitative analysis performed the analysis and coded the themes and summary, and the research team discussed and reached consensus on the themes.

Ethics

This study was approved by, and all procedures were conducted in accordance with, the standards of the Newfoundland and Labrador Health Research Ethics Board and the Sheshatshiu Innu First Nation, and adhered to the principles of the World Medical Association Declaration of Helsinki on Ethical Principles for Medical Research Involving Humans, as well as the Provisions of Chapter 9 of the Tri-Council Research Policy Statement: 'Ethical Conduct for Research Involving Humans; Research Involving the First Nations, Inuit and Métis Peoples of Canada'.

Table 2: Baseline characteristics of the study groups

	SMA (*n*=13)	Control (*n*=10)	*P*
Age, mean±SD	51.15±9.10	48±14.47	0.5
Female, *n* (%)	8 (62)	5 (50)	0.6
HbA1C, mean±SD	6.7±1.32	7.26±1.18	0.55
HbA1C >7.5, *n* (%)	6 (46.2)	8 (80)	0.099

HbA1C: Haemoglobin A1C, SMAs: Shared medical appointments

RESULTS

Twenty-seven patients in the community were deemed eligible. Of these, two declined participation, one became pregnant and one passed the age of 65 years in the time between consent and randomisation; finally, a total of 23 patients were included for allocation. Additional informed consent was gained at a later date for the participation in interviews.

Effects on haemoglobin A1C

Of the 23 patients who participated in the study, 13 were randomised in the intervention group and 10 in the control group. Figure 1 shows details on the enrolment and randomisation process.

The mean age of the intervention group was 51.15 (±9.10) years and the mean age of the control group was 48. 62 (±14.47) years. Approximately 62% of the intervention group was female, while 50% of the control group was female. Table 2 shows no significant differences in the characteristics of the two groups in terms of sex or age. At baseline, there was no significant difference found between mean HbA1C levels of the control and intervention groups (6.7 ± 1.32 vs. 7.26 ± 1.8) [Table 4]. One patient in the control group (n = 10) and one in the intervention group (n = 13) died during the study period. Patients who died were still included in statistical analysis. There was no significant difference in the number of patients who died or the number of patients who had haemodialysis between the control and the intervention groups during the study. Two of the 13 patients in the intervention group did not attend any of the 6 SMAs. Those patients were still included in the analysis [Table 3].

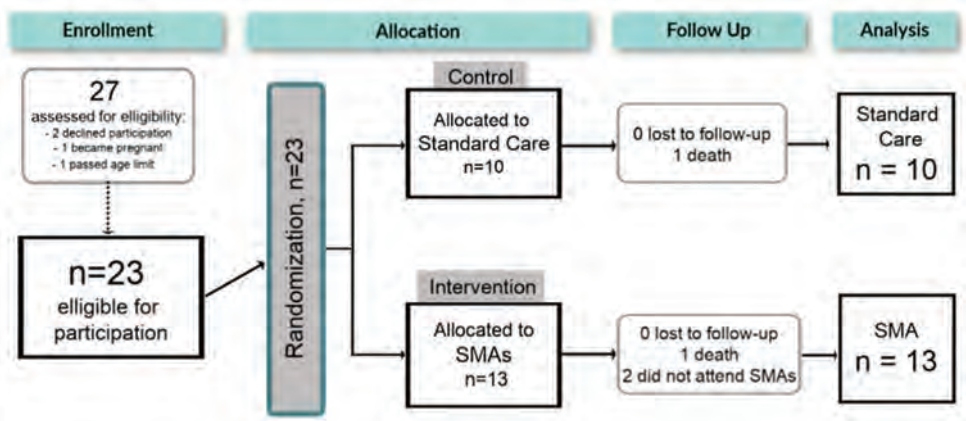

Figure 1: Flow diagram

Table 3: Clinical characteristics of the study groups

	SMA (n=13)	Control (n=10)	P
HbA1C at target level (≤7.5) at 6 months, n (%)	6 (46.2%)	5 (50%)	0.855
HbA1C at target level (≤7.5) at 12 months, n (%)	5 (38.5%)	4 (40 %)	0.940
Mortality, n (%)	1 (7.6%)	1 (10%)	0.846
Haemodialysis, n (%)	3 (23%)	3 (20%)	0.86

HbA1C: Haemoglobin A1C, SMAs: Shared medical appointments

Table 4: Changes in haemoglobin A1C during the study period between shared medical appointments and control groups

	SMA (n=13)	Control (n=10)	P
HbA1C, baseline	6.7 (1.32)	7.26 (1.18)	0.55
HbA1C after 6 months, mean±SD	7.41 (1.38)	6.92 (1.47)	0.42
HbA1C after 12 months, mean±SD	8.02 (2.21)	7.26 (1.65)	0.37
HbA1C change after 6 months, mean±SD	0.15 (1.31)	0.21 (1.46)	0.91
HbA1c change after 12 months, mean±SD	0.76 (2.12)	0.55 (1.62)	0.80

HbA1C: Haemoglobin A1C, SD: Standard deviation, SMAs: Shared medical appointments

The results of repeated-measure ANOVA demonstrated no significant difference between the mean of HbA1C levels, at baseline (6.7 vs. 7.26), after 6 months (6.9 vs. 7.4) or 12 months (7.26 vs. 8.02) within and between control and intervention groups, respectively [Table 4].

There were no observed harms or unintended effects due to the intervention observed within the study, nor were there any harms or unintended effects reported by patients.

Patient perspectives on shared medical appointments

We conducted 5 interviews in total. After the 5th interview, we had reached saturation but conducted 2 more to ensure no new themes would arise. We interviewed 4 females and 3 males aged between 30 and 65 years. Interviews revealed themes within 4 major categories related to learning benefits of SMAs, peer support benefits of SMAs, Innu culture and diabetes care and barriers with SMA care.

Learning benefits

The interviews revealed that patients felt they benefited from improved learning through the SMA format. We identified 3 themes under this category, summarised in Table 5.

Peer support benefits

Patients described an additional benefit of the SMAs; peer support. There were 2 main themes related to the category of peer support; they are summarised in Table 6.

Culturally appropriate care?

As demonstrated in Table 7, patients did not feel that SMAs were more or less culturally appropriate for the community than standard care. Patients viewed medical appointments as separate from and unrelated to Innu culture, meaning that one appointment type could not be more or less 'culturally appropriate' than another.

Table 5: Themes identified within learning benefits category

Theme	Explanation	Exemplary quote
Fun and dynamic learning style	The SMAs were described as being more dynamic and less one-sided than standard appointments, wherein the physician does most of the talking. Patients learned together and enjoyed being more engaged in the group setting	*'I enjoyed it…there's more back and forth'*
More holistic education	Patients described hearing from multiple practitioners and talking about a variety of topics related to living with diabetes	*'I like to see what the other (practitioners) are talking about… They talk about different things, like exercise or what to eat'*
Peer-to-peer learning	Some patients felt they learned as much, if not more, from fellow patients as they did from educational aspects of SMAs. Patients shared tips and advice for managing diabetes. This was described as more useful to them than the generalised medical advice, because it was coming from fellow Innu who shared their perspectives, experiences, location and challenges	*'I really liked the talking and listening to how other people are doing; to get the ideas (about how they manage their diabetes)'*

SMAs: Shared medical appointments

Table 6: Additional benefits identified by patients related to peer support

Theme	Explanation	Exemplary Quote
Shared experiences	Patients described valuing the opportunity to meet with peers and discuss living with diabetes with fellow community members who shared their experiences. They gained a sense of support and the chance to talk about the emotional aspects of diabetes	*'It becomes your whole life after a while... It's a whole new lifestyle you've got to adapt to…that's very hard sometimes. The group helped me a little bit more; how these guys – hearing how hard they found it, too. And to vent a little bit'*
Shared coping learning	In addition to gaining lifestyle advice from peers, patients described learning from one another about ways of coping with the illness, both in terms of their individual experiences and coping with the emotional aspects of diabetes in their community	*'For me I enjoyed [the SMAs] because I got opinions of how other people were dealing with their diabetes. And how I was doing, and I was able to let people know how I was dealing, doing it my way'*

Table 7: Themes identified within the category of 'Innu Culture and Diabetes Care'

Theme	Explanation	Exemplary quotes
Medical appointments as separate from community culture	SMAs were described as being no more or less culturally appropriate than other types of care; rather, all medical appointments are seen to be separate and unrelated to Innu culture	*(SMAs are) about the same; the one-on-one (appointments) and the group… Because people are still going to the doctor'*
Innu culture integral to healthy lifestyle and combatting diabetes	Although medical appointments were considered separate from culture, culture was described as very relevant to the treatment of diabetes, because of the role culture plays in the Innu lifestyle, and therefore the management of diabetes. Patients explained that when they lived a more traditional, Innu lifestyle, or when they 'lived their culture' more they were healthier and had less diabetes in the community	*'When people were eating a lot of traditional foods, and using traditional medicine, there was less diabetes...As people get away from that, now there's more diabetes here'*
Desire for Elders' Innu Knowledge for diabetes treatment	Elders with Innu cultural knowledge can help educate diabetes patients on healthy lifestyle. Patients expressed a desire to have elders or other knowledge holders involved in diabetes care through the SMAs	*'When I was helping the Elders…their sugars were really normal - because they are eating the traditional foods. But the younger ones - thirties, twenties and even fifties and forties, their sugars are high.'* *'Give (patients) more practical stuff...Try to figure out what we ate before sugar came around. Sugar and flour. Elders talk about their diet… If you could come back to that a bit more, it would help'*
Need for culturally-specific diabetes education in SMAs	SMAs were described as a good venue for 'bringing culture in'. While SMAs and medical appointments were described as separate from Innu Culture, patients felt the SMAs could allow for elders with cultural knowledge to help educate patients to improve their lifestyles and manage their diabetes. Locally-specific, Innu lifestyle knowledge is described as more useful to patients than generalised medical advice on healthy eating, etc.	*'It would be great to bring [Elders and cultural knowledge] in [to the shared medical appointments] - to have the traditional medicine and the western medicine too. The people can have both to help them out'*

SMAs: Shared medical appointments

However, patients were eager to discuss the ways in which culture itself was relevant to the treatment of diabetes in the community. Patients raised the topic of Innu culture being connected to lifestyle and therefore to the experience of diabetes in their community. Although the patients were neither asked directly about lifestyle, nor why they felt diabetes was a health issue for the community, 4 patients identified lifestyle issues within the community to be a major contributing factor for both the high prevalence of diabetes, and the difficulty community members have in managing their diabetes. Four themes were identified within the category of 'Culture and Diabetes Care' throughout the interviews. These are summarised in Table 7.

Barriers with shared medical appointments

Patients reported no significant barriers to partaking in or benefitting from SMAs. Each patient interviewed reported that their likelihood of attending SMAs and standard care appointments was the same. All patients (n = 7) indicated that they were comfortable with the group setting, including having their blood pressure checked in front of other patients, as well as discussing health issues with the group. Some patients mentioned that for certain questions, they would choose to speak to the physician privately, outside the SMA (n = 2). Patients did not report any major issues or concerns with the SMAs.

DISCUSSION

Interpretation and implications

The HbA1C of the intervention group did not worsen during the study at 6 or 12 months after the intervention, nor did it differ significantly from the glycaemic control of the control group. The groups also did not significantly differ in terms of numbers of patients who underwent haemodialysis or died

during the course of the study. This suggests that the SMA format may be offered without negatively impacting patient HbA1C outcomes. In addition, the no-show percentage was significantly lower among the SMA participants than those in the control group. Qualitative analysis revealed that there were benefits to the SMA approach; patients enjoyed the group learning and gained peer support. They also felt that SMAs were a useful service for the community. This research has also provided us with valuable insight from patients on their perspectives on diabetes care and the suggestion to find ways to incorporate local, Innu cultural and lifestyle knowledge into diabetes care and education.

We found no evidence indicating harmful effects or that patients experienced any substantial negative barriers or drawbacks due to the SMA format.

As with many published studies, the findings of our study are inconclusive as to whether or not patients benefit more from SMAs than standard care. In previous studies, the effect of SMAs on reducing HbA1C level is inconsistent. One meta-analysis of 26 studies found that group appointments contributed to significant reductions in HbA1C levels. [2] However, some studies have not found group or SMAs to lead to significant reductions in HbA1C.[12-17] The differences in findings among studies could be due to the variation in the duration, populations and delivery models of the studies.[2]

An additional positive aspect of the SMA model according to our clinical team was access to diabetic education and dietician services for larger groups of patients. Those services are difficult to secure in the region of study. The SMA provided access to these services for a group of patients in each session; therefore, it allowed these practitioners to reach more patients and develop more relationships in this community than they otherwise would.

Although the study was not designed as a non-inferiority trial, the results could suggest that SMAs are a safe way of delivering diabetes care to larger groups of patients, with some added benefits. Moreover, the 'one-stop shop' model of care[3] provided in SMAs is likely an efficient and useful way of delivering multiple diabetic care services to Innu patients with well-controlled diabetes, which ultimately improves access to diabetes care for these patients.

Strengths and limitations

Only a few RCTs have investigated the impacts of shared medical appointments in rural and remote settings. To our knowledge, this is the first study in an indigenous community setting.

This study was conducted in remote and low population areas and was limited to 23 patients. One may question the effect of the small sample size and the short duration of the study on statistical associations. There was a low number of patients with a well-controlled HbA1C level ≤7.5% in the community, resulting in a small available sample. As this was a trial project for the community, we also had limited resources to deliver the SMAs and measure outcomes over a longer period. Findings of a meta-regression analysis showed that the duration of treatment in SMAs had direct association with HbA1C values. Patients who were treated for longer periods had better HbA1C outcomes, indicating that the number of months in SMA care may have a more significant impact than the frequency of the appointments.[2]

A RCT with a larger sample size and longer duration could provide better knowledge as to the effects of a SMA care model on HbA1C levels for Innu patients with well-controlled diabetes. This could also potentially provide information on the SMAs impact in both the short and long terms.

CONCLUSIONS

Our Innu patients identified SMAs as a suitable and beneficial approach for themselves and for their community. The community leaders have stated that they would like the SMAs to continue.[18] This study is specific to Sheshatshiu; therefore, the findings may not be applicable to other communities. However, the approach may be beneficial for other rural or indigenous communities in addressing complex primary care needs where resources are limited.

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REFERENCES

1. The Innu Nation, Sheshatshiu Innu First Nation, Mushuau Innu First Nation. The Innu Healing Strategy: An Innu Plan Jointly Developed by the Innu of Sheshatshiu and Natuashish. Innu Round Table Secretariat; 2014. Available from: http://www.irtsec.ca/2016/wp-content/uploads/2014/08/An-Innu-Healing-Strategy-June-2014-4.pdf. [Last accessed on 2020 Oct 06].
2. Housden L, Wong ST, Dawes M. Effectiveness of group medical visits for improving diabetes care: A systematic review and meta-analysis. CMAJ 2013;185:635-44.
3. Edelman D, McDuffie JR, Oddone E, Gierisch JM, Nagi A, Williams JW. Shared Medical Appointments for Chronic Medical Conditions: A Systematic Review. Washington, DC: Department of Veterans Affairs (US); 2012.
4. Adelson N. The embodiment of inequity: Health disparities in Aboriginal Canada. Can J Public Health 2005;96:S45-61.
5. Marrone S. Understanding barriers to health care: A review of disparities in health care services among indigenous populations. Int J Circumpolar Health 2007;66:188-98.
6. Joseph, B. What is an Aboriginal Medicine Wheel? In: Working Effectively with Indigenous Peoples Blog. Indigenous Corporate Training vInc; 2013. Available from: https://www.ictinc.ca/blog/what-is-an-aboriginal-medicine-wheel. [Last accessed on 2020 Oct 06].
7. Shorten A, Smith J. Mixed methods research: Expanding the evidence base. Evid Based Nurs 2017;20:74-5.
8. Bull J. Research with Aboriginal peoples: Authentic relationships as a precursor to ethical research. J Empir Res Hum Res Ethics 2010;5:3-22.
9. Martin DH. Two-eyed seeing: A framework for understanding indigenous and non-indigenous approaches to indigenous health research. Can J Nurs Res 2012;44:20-42.
10. Braun V, Clarke V. Using thematic analysis in psychology. Qual Res Psychol 2006;3:77-101.
11. Vaismoradi M, Turunen H, Bondas T. Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. Nurs Health Sci 2013;15:398-405.
12. Wagner EH, Grothaus LC, Sandhu N, Galvin MS, McGregor M, Artz K, *et al*. Chronic care clinics for diabetes in primary care: A system-wide randomized trial. Diabetes Care 2001;24:695-700.
13. Clancy DE, Brown SB, Magruder KM, Huang P. Group visits in medically and economically disadvantaged patients with Type 2 diabetes and their relationships to clinical outcomes. Top Health Inf Manage 2003;24:8-14.
14. Naik AD, Palmer N, Petersen NJ, Street RL, Roa R, Suarez-Almazor M, *et al*. Comparative effectiveness of goal setting in diabetes mellitus group clinics. Arch Intern Med 2011;171:453-9.
15. Rygg LØ, Rise MB, Grønning K, Steinsbekk A. Efficacy of ongoing group based diabetes self-management education for patients with Type 2 diabetes mellitus: A randomised controlled trial. Patient Educ Couns 2012;86:98-105.
16. Schillinger D, Handley M, Wang F, Hammer H. Effects of self-management support on structure, process, and outcomes among vulnerable patients with diabetes: A three-arm practical clinical trial. Diabetes Care 2002;32:559-66.
17. Trento M, Passera P, Borgo E, Tomalino M, Bajardi M, Brescianini A, *et al*. A 3-year prospective randomized controlled clinical trial of group care in Type 1 diabetes. Nutr Metab Cardiovasc Dis 2005;15:293-301.
18. Innu Round Table on Health Care. Diabetes Care in Sheshatshiu. Happy Valley-Goose Bay, NL: Innu Diabetes Leadership and Development Capacity Training; 2019.