

Healthcare providers' perspectives on challenges and opportunities for intercultural healthcare in diabetes and obesity management: a qualitative study

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4 **diabetes and obesity management: a qualitative study**
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6 **Abstract**
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8 **Background:** The refugee and immigrant context presents unique challenges to chronic disease
9 management in primary healthcare. Understanding how this context impacts patient-provider
10 engagement is critical to the provision of contextually appropriate care. We examined healthcare
11 providers' perspectives on challenges and opportunities for diabetes and obesity management in
12 ethnocultural communities.
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15 **Methods:** A qualitative study within a multi-method, collaborative, participatory research project. It
16 involved primary care providers in clinics and primary care networks in Edmonton, Alberta. We
17 conducted 9 interviews and 4 focus groups in 2019 and 2020, exploring: healthcare providers'
18 approaches to diabetes and obesity management, and experiences of and challenges with intercultural
19 care. We conducted a thematic analysis using an interpretive qualitative approach.
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22 **Results:** We identified three themes: 1) A shift from traditional weight loss-centred approaches; 2)
23 Relationships and navigating cultural distance; and 3) Importance of and limitations in identifying and
24 addressing root causes and barriers. Our findings highlight the challenges of intercultural care for
25 diabetes and obesity in primary healthcare settings from healthcare providers' perspective. Healthcare
26 providers face significant challenges navigating cultural distance and non-medical contextual challenges
27 immigrant and refugee patients face.
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30 **Interpretation:** Exploring opportunities to navigate cultural distance in patient-provider interactions in
31 primary care settings could enhance diabetes and obesity management for patients from vulnerable
32 ethnocultural communities.
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Introduction

Diabetes and obesity are chronic diseases with significant individual and population level impacts. Treating these diseases and associated complications contributes considerably to healthcare and national economic costs. Approximately 11.7 million Canadians live with diabetes or prediabetes (1), with estimated direct and indirect healthcare costs of diabetes exceeding \$17 billion by 2025 (1). About 24% of (1 in 4) Canadian adults live with obesity according to measured height and weight data (2–4) with estimated healthcare costs of \$5 – 7 billion (5,6). Consequently, diabetes and obesity present significant public health concerns.

Managing these chronic diseases falls predominantly on primary healthcare because of their capacity for long-term management on a large scale with diverse strategies (7,8). Personalized healthcare approaches are recommended for diabetes and obesity management to help fit care with patients' life conditions (9–11). This care process represents an adaptive challenge of addressing various elements including healthcare providers' beliefs, knowledge, skills and practice standards, and improved organization of care (7). Some studies have found that with obesity especially, many primary care professionals often feel ill-prepared to undertake effective weight management (12,13). Reasons for this include knowledge gaps, weight bias, inadequate training and lack of experience working in professional teams (12,14). With societies becoming increasingly multi-ethnic, as people settle in culturally different countries, it adds significant intercultural care challenges to an already stressed healthcare system (15,16). Intercultural care refers to a "meeting of two different cultural contexts of care" (15). The associated challenges contribute to inappropriate assessments, diagnoses and treatments where cultural background is not factored in (17). Understanding nuances of intercultural healthcare is crucial to providing meaningful healthcare to immigrants and refugees. In response to this, our research work examines the dynamics of chronic disease management in immigrant communities, to generate efficient sustainable solutions. Collaborating with a local Community Health Workers Cooperative and Primary Care Networks (PCNs) in Edmonton, we examined challenges and opportunities of intercultural care from several perspectives, including ethnocultural community members with diabetes and obesity (18); community health workers engaged with these communities and healthcare providers. This paper presents findings from healthcare provider perspectives on challenges and opportunities of the intercultural care process.

Methods

Setting and design

This qualitative study was part of a larger research project, using multi-method, collaborative, participatory approaches (19,20) partnering with diverse research partners in Edmonton, Alberta including the Multicultural Health Brokers (MCHB) Cooperative, Southside Primary Care Network (PCN), and representatives from Alberta Health Services, City of Edmonton, Alberta Blue Cross, and the Diabetes, Obesity and Nutrition Strategic Clinical Network. We engaged with partners in monthly Community Advisory Group and bi-annual Policy Advisory Group meetings during the project. Specific to this study, we reached out to healthcare providers in Edmonton through PCNs. We used an interpretive qualitative approach, recognizing our research participants as co-creators in the knowledge-building process necessitating a reflexive approach in participant and partner engagement (21,22). In collaboration with community partners, we drew on the population health approach (23) in data collection and analysis to capture determinants of health, and synergistic effects of health, illness experience and vulnerable conditions.

Participants, data collection

We used purposive and snowball approaches to participant recruitment. In relation to the former, we specifically sought out healthcare providers who engage regularly with patients from newcomer immigrant and refugee communities. Participants determined for themselves whether they fit this criterion. We used a snowball approach by reaching out first to healthcare providers our research partners were familiar with. These included healthcare providers from the Edmonton North PCN that has a large patient base from immigrant and refugee communities, and clinics such as the Citi Francophone that provides services to a significant number of French-speaking immigrants. These contacts further directed us to other healthcare providers who met the criterion. Interested participants who responded to the research team were provided with study information and consent forms. We conducted interviews and focus groups, based on preferences of participating individuals and clinics using interview and focus group guides with open-ended questions. Participants were encouraged to share experiences freely. However, additional questions were added during the process to deepen and clarify responses. We explored healthcare providers' approaches to diabetes and obesity management, and their experiences of and challenges with engaging with migrants with diabetes and/or obesity. Data collection was continued with different healthcare providers until the researchers felt they had reached saturation. This was established when interviews and focus groups were not generating new insights, and new data produced repetitions of ideas and experiences expressed in previous data in relation to our questions (22,24).

We incorporated processes to ensure rigour and trustworthiness in our research (22,25). Reflexivity exercises at the start of our research helped us maintain a reflexive approach in participant and partner engagement. Additionally, we facilitated regular discussions and documentation (audit trail) of the research process with our community partners to establish credibility and dependability of findings. We ensured methodological coherence in our interpretive qualitative approach with method, data generation strategy, sample size, data analysis processes aligned to our research question (22,25).

Data Analysis

Data comprised of audio recorded and transcribed interviews and focus groups, and field notes. Data were managed and coded in NVivo (QSR International Pty Ltd. Version 12, 2018). We conducted a thematic analysis of the data, an iterative process of coding, categorizing and generating themes (26,27). Data were first cross-coded by NNO, TL, NM & DCS and a code manual was collaboratively developed based on discussions from the cross-coding. NNO and NM re-coded all data using the code manual. Patterns in the data were identified and discussed with the research team. Patterns were categorized and abstracted to generate themes. Field notes from data collection were referred to during the analysis for additional contextual information. We described the meanings people attribute to the phenomenon (28,29), while keeping descriptions at a level knowledge users can relate to so they can better understand the situation and motivate action (30). Participants were given codes (Example P1 = participant 1; and FG1 = Focus group 1).

Ethics Approval

This research was approved by the University of Alberta research ethics board (ID: Pro00089571).

Results

We conducted nine individual interviews with seven females and two males, and four focus groups with 6 to 8 male and female participants. Participants included healthcare providers in diverse roles, namely

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3 physicians, nurses, behavioral health consultants, social workers, pharmacists, dieticians, exercise
4 consultants, clinic administrators and program managers in Edmonton. (Table 1). We identified three
5 themes: 1) A shift from traditional weight loss-centred approaches; 2) Relationships and navigating
6 cultural distance; and 3) Importance of and limitations in identifying and addressing root causes and
7 barriers.
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13 Table 1 – Study participant description

Interviews			
	Professional role(s)	Gender	Number of participants
1	Doctor	Male	
2	Behaviour Health Consultant	Female	
3	Manager, Special Projects and Initiatives	Female	
4	Registered Nurse	Female	
5	Social Worker	Female	
6	Doctor	Female	
7	Doctor	Female	
8	Pharmacist	Male	
9	Dietician	Female	
Focus Group			
1	Exercise specialist, Psychologist, Social worker, Behavioral health consultant, Licensed practical nurse, and Registered nurse	Females	6
2	Quality improvement facilitators	Females	6
3	5 – Family physicians, and 3 – Nurses	Males and females	8
4	Medical receptionist, family physician, Clinic manager, administrator, 3 – Family physicians, Licensed practical nurse, and Dietician.	Males and females	8

41 **A shift from traditional weight loss-centred approaches**

42 Providers described how they have shifted their focus from weight-loss centred obesity management
43 approaches to encouraging patients to have healthy lifestyles. They felt that there was a need to help
44 patients focus on practical and realistic lifestyle changes for managing diabetes and obesity, rather than
45 "the number on the scale". As one provider stated, "people who need to lose weight usually already
46 know they need to make a change or lose weight" (FG3). Some providers described their approach as
47 "weight-neutral" (FG1). In line with this, providers try to avoid diet plans and encourage mindfulness
48 around eating, and other realistic and sustainable goals. However, the topic of weight-loss still comes up
49 in conversations, especially when discussing cultural foods that may be heavier in sugars and
50 carbohydrates, which affect diabetes or obesity. Providers also mentioned the importance of conveying
51 that weight maintenance is also a valid goal in situations where the patient felt discouraged that despite
52 their lifestyle changes their weight had plateaued.
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Providers felt that flexibility in diabetes and obesity management approaches is helpful. This is because management of these diseases can be complex with biological, psychological, social, and financial aspects interacting in a person's life. Some PCNs offer both group and individual education sessions on diabetes. They also found it beneficial in some instances to offer separate sessions for newcomers/immigrants with support from other immigration support agencies. From experience, they realised that having strict program requirements do not work for people and often results in poorer attendance and engagement, and often cause difficulty for patients to access. An illustrative example was a province-wide weight management program with about a 2-year wait, requiring certain classes/modules to be completed before first consultation.

Box 1. Supporting quotes for Theme 1: A shift from traditional weight loss-centred approaches

- And so we try to use what we would call, a weight neutral approach. Just because we find a lot of folks when they have weight as that primary measure of success, that's not always the greatest measure of success, because if they're not seeing that number change, then they assume that what they're doing isn't working and it's not helping. Whereas if we're looking at managing a chronic condition like diabetes, or really any other chronic condition or even pain, even though the weight might not be changing, if we're creating more stability, if we're using those muscles, if we're metabolizing, our blood sugar better, we're seeing improvements in health, we might not be seeing changes in weight. (FG1)
- So we try to take that weight neutral approach and look at other measures of success as well. So how are you feeling? How are your abilities? What are you capable of doing now? What's your endurance like? Other measures versus just like, okay, I stepped on the scale today, did I lose five pounds this week? And if I didn't, I guess I'm failure and I'm just going to stop doing what I'm doing. But we try to look at all aspects of health, not just that number.(FG3)
- You know, obesity is something that, again we're very much more focused on trying to encourage lifestyle changes versus just focusing on, you know – the numbers, the scales, there's a lot of weight management programs, different approaches; we try to take a very weight neutral approach in managing these patients.(P8)
- They [patients] definitely direct that care and their own goals... So, I'll ask, 'how often are you currently having those cookies, are you having it very single day, during the week, well what is realistic for you, can we cut down to, you know, four times during the week or can we, you know, move that down to two times during the week?' And just really try and set those goals based on their current pattern and not giving them, okay you have to eat it or you can only have it one time a week but trying to help them set those goals for themselves. (P9)
- Well... if we want to refer somebody to the obesity program and their English isn't up to snuff, and the requirements for them to participate in an obesity program is quite stringent or otherwise they get punted, ay, if they don't follow the instructions, and if they don't follow the program they basically kick them out of the program. So, we've had situations where, you

know, somebody had been referred, and because they can't follow through properly, they get kicked out of the program and we've got to start from square one again. We've got to re-refer or whatever, or just decide to deal with it ourselves. Yeah, some of these programs aren't necessarily easily accessible (P1).

Relationships and navigating cultural distance

Providers expressed the importance of establishing trust and relationship with patients to learn about their context and provide appropriate care. Building trust and relationship is a two-way process that requires elements on both provider and patient sides. Patients need to understand the provider's role and services they offer. Providers expressed that roles such as behavioral health consultants were not well understood, especially for people from cultures where mental health issues are not recognized. Similarly, social workers were sometimes associated with fears around child apprehension and met with distrust. Providers also expressed concern about how some patients perceive relationships with healthcare providers as transactional rather than a long-term trust relationship. This stems from patient experiences in their country of origin where doctors are seen on demand without routine check-ups, and without the habit of forming long-term relationships with providers. This can lead to instances such as patients purchasing diabetes medication abroad because they felt they were cheaper; or patients going abroad for gastric by-pass surgery without informing their Canadian doctor. They would usually return without the needed information and support to manage their lives post-surgery. In each of these situations, providers were usually unaware that this was going on until concerns arose with the patients' condition.

Providers on the other hand need to be equipped with intercultural skills. Some described having received training on "cultural awareness", and being "trauma informed". Providers with years of experience with patients of diverse ethnic backgrounds, and those with a relatively recent immigrant experience expressed that they were able to connect more quickly with patients and identify contextual issues relating to diabetes and obesity management. PCN staff were described as key players in getting to know more about patients' context since they usually have more time to spend with patients. *"Doctors have only 15 minutes with patients that is why the allied health professionals are there to support."* (P2). Providers also described how offering supports beyond immediate health needs helped patients from immigrant backgrounds form close connections with their clinic. One Francophone clinic with multilingual capacities, had patients coming back for document translation and letters of support to access social support services. These connections were formed because, *"they know that we're trusted people and that we can translate. And maybe we've helped them with another situation in the past"* (FG4). They felt that patients were appreciative of these supports.

Cultural distance in this work refers to differences between Canadian culture and the cultures of newcomers. It can present significant challenges to building trust and relationship, communication and setting realistic goals for managing diabetes and obesity. Migrant patients need to navigate Canadian culture, language barrier, healthcare system, and resources and supports for socio-cultural and economic challenges. Patients need to be *"aware of what programs are available, how to access the programs, to understand program requirements and how to comply with requirements"* (FG3). However, providers felt that newcomers to Canada have quite a learning curve understanding the healthcare system. *"If it's hard for me [a healthcare provider] to navigate healthcare services, resources,*

[and] supports, how much more the newcomer?" (P2). Providers expressed challenges with delivering care when patient expectations do not match the reality of the healthcare. They felt that some patients' concept of healthcare is not "preventative or continuity of care but rather acute care, where they see a doctor only when they feel they are sick. And once they see a doctor and get some treatment, that's the end." (FG3). Additionally, some patients do not recognize that they can take an active role in their healthcare. Some providers suggested that having targeted resources for newcomers could be helpful. For instance, since PCNs and their services are not known within ethnocultural communities, PCNs could reach out more to raise awareness about their services. Providers also suggested that Canadian immigration points of entry would be a good starting point to supply information to newcomers about resources and support they can access to support their health and wellbeing while settling in Canada.

Providers also need support to navigate diverse cultural-contexts, and develop intercultural communication skills to make interactions with patients meaningful. Providers expressed that language barrier and low literacy levels affect how people understand their health conditions and how to manage it. Consequently, PCNs and clinics have developed formal and informal approaches to address language and/or literacy challenges in healthcare. These include hiring multilingual staff, using language translations service supplied by Alberta Health Services, and translation by patients' family members or friends. Lack of access to educational resources in other languages was a concern for some providers. They felt that access to multicultural resources or educational materials on specific diseases adapted to various populations would be helpful. Although there are resources for addressing language barrier, providers remarked that issues sometimes go beyond language barrier to a need for cultural interpretation between provider and patients. This means presenting what is being communicated in ways that can be understood within the cultural understandings of patients and providers. Lack of cultural interpretation where needed could impact how patients and providers understand each other and potentially, the quality of health outcomes.

Box 2. Supporting quotes for Theme 2: Relationships and navigating cultural distance

<ul style="list-style-type: none"> • There's an awful lot of trust that a patient has to have too, to even address [weight]. Because they're embarrassed you know, if I have a patient who's 300 pounds they're not happy about the fact that they're 300 pounds. They're really embarrassed about it. They don't necessarily want to talk about that right? So they have to really trust you to open up about that. Usually there's a lot of tears and a lot – so that's – like that's a long visit. That's not five minutes. ...They come in with their own long list of problems so to really get into all the issues as to why they're overweight I mean it's not simple. (FG3)
<ul style="list-style-type: none"> • Not that the provider will fix you, but that you collaborate on making decisions about your health, especially for diabetes and obesity management as it requires a lifestyle change component. (FG1)
<ul style="list-style-type: none"> • There is lots of explanation needed to help patients understand the role of behavioral health consultants (BHCs) because people are unfamiliar with the Canadian healthcare system. (P2)
<ul style="list-style-type: none"> • Having a family doctor may be foreign to some. Booking appointments versus just showing up and waiting to see the doctor is also foreign to some. (FG3)
<ul style="list-style-type: none"> • People may have a distrust for government agencies and so will not disclose mental health issues such as depression, PTSD to the provider for fear that if it gets to Children's Services, their children will be taken away from them. (FG3)
<ul style="list-style-type: none"> • Lately we are seeing a lot of patients who are going Mexico, San Diego, those places and India and they are coming back. They didn't tell me that they are going. I receive them after the gastric sleeve surgery is done. So now because there is no education... In Alberta, we have a

good program and that involves teamwork but for them [some foreign healthcare services] there is no teamwork... But they (patients) don't understand that after surgery you still have to stick with the [healthy lifestyle right?]. And then they come with complications (P6).

- Yeah, and it's, you know, the longer you do a position like mine, you kind of dial in on some key areas and then right away it often allows me to develop a quick relationship with patients to be very open to find out really what's happening. And that connection always makes a big difference as far as them, you know, being, appreciating the support, you know, trying to understand why these things are happening, so that's always kind of a good way to start for a lot of patients.(P8)
- It's in the approach in teaching and talking about different conditions, you know. When it comes to the diet in general, you know, I try to explain to patients that, with a condition like diabetes people can always continue to eat whatever foods they like to eat. It's never about eliminating foods forever; it's being more mindful about the choices they make, the portions, how often they have certain foods. So, in a way it's trying to normalise and take away a lot of, you know, fears or concerns that patients have if they think, you know, they can never eat rice again. You know, to tell that to a person who is South East Asian origin, that you can never have rice ever again is foolish; you know, I have a lot of patients North African, you know, breads like Injera or things like that, you know, a lot of traditional foods. You don't want to, you're not trying to take that away, because it's, I think would make it very challenging for those patients to accept, you know, other bits of information. So, that's where, again it's all part of the knowledge process to make them aware that it's just about, you know, incorporating exercise, mindful eating and to still retain as much of their culture as they want to retain.(P9)

Importance of and limitations in identifying and addressing root causes and barriers

Providers emphasized that identifying root causes and contextual barriers is crucial to diabetes and obesity management. *"You need to see the patient holistically, see what their situation is, to be able to meaningfully engage in chronic disease management"* (P5). Therefore, they attempt to address root causes and barriers, using a team approach to address contextual barriers that fall outside their scope. Regarding obesity, most providers, especially family doctors and nurses had heard of the 5As of obesity(31). They mentioned that although they do not directly use the 5As approach, they use some related concepts such as identifying and addressing root issues, assessing the patient's context – stress, mental health, strengths, challenges, and priorities – to adapt their approach and care goals accordingly. Providers emphasized that a key aspect to the care process is that patients needs to be invested in their health. However, competing interests, such as childcare, immigration stress, domestic relations, and financial challenges, may impact how invested people can be. Since the complications of diabetes and obesity may be "so far down the line for most people" (P1), competing priorities may inhibit patient motivation to take crucial actions for their wellbeing, resulting in health complications. By adopting holistic perspectives to care, patients and providers can work together to navigate these challenges and plan lifestyle changes that fit the patient's context.

The healthcare provider role has limitations addressing the contextual challenges of immigrants and refugees. Firstly, knowledge and training to address the non-health issues of patients, such as financial problems, social and cultural challenges, are usually outside the scope of providers' work. Providers mentioned that their knowledge of social assistance resources come from personal knowledge, experience, asking around in their team or researching. Because they do not engage with these resources regularly in their work, providers may not be up to date on policies, procedures and types of resources to support patient socio-economic needs. Therefore, they may spend time filling out forms only to find out that they submitted outdated documents.

Still, some providers try to address these needs because they could potentially impede treatment if left unattended. For example, providers supply samples of medications and test kits but as a short-term solution. Furthermore, because patients do not see a doctor with the expectation of having their basic needs, discussions about their living conditions and socio-economic problems may not come up. Without knowledge of these contextual barriers, problems may persist and impede the diabetes and obesity management process. Providers mentioned that sometimes, it is only by chance that socio-economic challenges surface. An example is when a patient with no health coverage or expired refugee claimant status needs to pay out of pocket for the medical appointment. Although a provider with awareness of socio-economic barriers and knowledge of the determinants of health may attempt to probe into the patients' background, sometimes *"asking a lot of personal questions could be triggering for some patients who come from authoritarian regimes"* (P2).

A second key limitation providers face is time. Given the limited time and the volume of work providers have, they may not be able to address patients' socio-economic problems meaningfully. Some providers try reaching out to organizations on behalf of patients and help filling out the requisite paper work. However, because there is usually no information sharing agreements between immigration and social support organizations, and the healthcare system, they may not receive feedback on their patient's situation. This might be because of ethical or privacy issues. This lack of coordination with other support organizations is another limitation providers face. Some providers expressed that having culturally sensitive patient navigators could help in a brokering capacity to build trust between patients and providers, and support patients in accessing social support services to address their basic needs.

Box 3. Supporting quotes for Domain 3: Importance of and limitations in identifying and addressing root causes and barriers

<ul style="list-style-type: none"> • "It's about removing barriers. Finding ways to make things work for the patient." (P2)
<ul style="list-style-type: none"> • They [some healthcare providers] don't check, verify what these guys [patients] are eating. They don't verify how the situation, the family [if] they have violence involved. The kids are being bullied at school. They don't know what's going on. Because in five minutes, you cannot check it out. You see how complex it is? It's social, it's definitely is a disease. It's biological. You have the bio stuff. It's psychological as well because you don't know what is involved there. For example, [with] obesity there are lots of mental things related and you have the social piece, community, money, basic needs. Everything for them to survive. You are supposed to start basically what will be the first step? Social, always is the basic, give the basic to them. The rest, they going to engage slowly but they need to put food on the table. The kids, they're going to go to school. The kids have to have a decent life. Mom and dad have to have a good relationship. You know, there are lots of things involved. (P5)
<ul style="list-style-type: none"> • And I address barriers, I address everything with the client, and that, I have found, has been the best approach for me when it comes to obesity management, to kind of find out about their story and to like – you know, what have they done, what – like, you know, what more is there to be done. (P4)

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4	<ul style="list-style-type: none"> • For some patients' for instance, they cannot afford to take time off work to go participate in healthcare programs. This is because time off work may mean reduced income for them so they cannot afford to prioritise certain medical appointments. (P8)
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7	<ul style="list-style-type: none"> • “.. maybe the answer is culturally sensitive patient navigators... because for all these barriers, number one is the time, number two is the mechanics of answering the phone, booking the appointment, going to the appointment, filling out the prescription etcetera right?...Because then that would take a lot of the burden if you're having to chase after and fill all these forms. If they can do that and help them understand the system before they come to see you.” (FG3)
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12	<ul style="list-style-type: none"> • The strips are very expensive, so even if they are, I'm able to get samples of strips...for a short amount of time. But I'm not able to provide, you know, a large amount of strips forever and ever and ever. So, there's a lot of things, a lot of supplies that I can provide to patients to at least help with the starting the process to trying to understand... But I'm also helping in the end with the money or the pain or the stress that comes with testing... I always think about for patients... trying to help with financially, with testing, with supplies, all those kind of things. But then ultimately – they have to find a long term solution, because you can't be giving it forever. (P8)
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22	<ul style="list-style-type: none"> • Number two, mostly because of the socioeconomic they don't have any coverage. They don't want to buy those medications. Number three, some of them who are already diabetic and they are bringing the medical from back home because it's cheaper. So it is really a challenge when you try to change it or add something because they don't have coverage and they don't want to and whenever we have samples, we provide them but those are the issues. (P6)
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27	<ul style="list-style-type: none"> • If an organization is seeing a patient, they cannot provide information on that person to the hospital staff. This may be a reason for the lack of communication. When the clinic staff write a letter to the organization to support a person's application, the organization will deal with the person not the writer of the letter. (FG3)
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Discussion

This study highlights challenges of intercultural care for diabetes and obesity in primary healthcare settings from healthcare providers' perspective. Healthcare providers face significant challenges navigating cultural distance and non-medical contextual challenges immigrant and refugee patients face. These issues tend to be outside providers' usual scope of work and medical training. Increasing awareness of intercultural healthcare challenges is key to generating the needed supports for providing effective care, and consequently addressing health inequalities arising from these challenges.

This study also contributes to discussions around the nature of care needed for people with diabetes and/or obesity experiencing vulnerable circumstances from migrant contexts. Although personalized health care approaches are important, the immigrant and refugee context presents challenges to this care approach because migrants need firstly to be meaningfully situated in their new environment to have capacity to manage chronic diseases and focus on improving health. Consequently, understanding the migrant context, including pre-and post-immigration realities of ethno-cultural communities and potential impacts on people's capacity to manage health needs is critical to meaningful patient-provider engagement (18). Patients' burden (workload) and capacity to manage their health are intertwined and affects each other (32). When patient burden outweighs their capacity, clinical and social factors accumulate and interact to hinder access, utilization, self-care and health (32). Thus, addressing impacts of syndemic interactions of the socio-cultural context and health issues migrants face requires

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3 identifying meaningful and impactful ways to help immigrants orient themselves in society. Context-
4 informed approach to care is an opportunity to advance healthcare for ethno-cultural communities.
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6 Context-informed care, for immigrant and refugee populations, would be care that is cognitive and
7 considerate of their intersecting realities such as pre-immigration trauma, socioeconomic and cultural
8 barriers to health (18,33,34). The context-informed care approach invites healthcare providers to
9 consider and learn about different contexts relevant to understanding life experiences at play when
10 engaging with individuals, families, and groups from immigrant or minority communities (35). This
11 approach involves developing an understanding of diversity, and root causes of inequity for different
12 populations in order to give care that fits with their realities. With health disparities at the forefront of
13 healthcare discussions, context-informed care is part of the solution because it guides healthcare
14 providers' understanding of the drivers of health disparities for at-risk or vulnerable populations. This
15 context-informed understanding is the foundation to addressing risk factors which would "shift the
16 whole distribution of risk in a favourable direction" (36) for a community. Context-informed care also
17 enables more realistic and holistic perspectives that consider the resilience and strengths of individuals,
18 families and communities (35). Pursuing context-informed care requires an understanding of the needs
19 of patients and providers. Patients from newcomer immigrant communities need knowledge and
20 resource support to navigate their new environment to engage meaningfully with their healthcare. Lack
21 of knowledge is a significant barrier to health care (33). The challenge to healthcare providers is how to
22 navigate non-health barriers and cultural distance in practical and effective ways. Potential solutions
23 include continued education for healthcare providers on the unique needs of refugee and immigrants
24 and other vulnerable groups and the circumstances that contribute to chronic conditions and difficulty
25 seeking appropriate help (37). To address time and scope limitations, healthcare providers need
26 processes and resources to refer patients to for contextual challenges such as food insecurity, housing
27 insecurity, and cultural interpretation.
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32 There is evidence of the benefit of health navigators (also known as cultural navigators, culturally
33 sensitive navigators, community navigators, cultural brokers). Shommu et al.(2016) conducted a
34 systematic review on use of community navigators to help immigrant and ethnic minority groups in
35 Canada and the United States to overcome barriers to healthcare. Studies reviewed had navigators who
36 were trained to guide members of several ethnic communities in chronic disease prevention and
37 management, undertaking cancer screening and accessing primary healthcare. The studies reported
38 substantial improvement in the immigrant and ethnic minority health outcomes in the United States
39 (34). The single Canadian study also reported positive outcome of navigator services among immigrant
40 women (38). The authors stated that Canada is at an early stage in adopting community navigators for
41 immigrant populations with a paucity of research on the topic. However, findings from the Canadian
42 study revealed that the cultural brokering model was a successful alliance between community-based
43 organizations and the public healthcare system targeting barriers to accessing primary care for
44 vulnerable immigrant populations. Incorporating cultural brokering into the healthcare system could
45 help bridge bi-directional gaps in intercultural care and provide support to newcomer ethno-cultural
46 communities to navigate life in their new environment.
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50 **Limitations**

51 Limitations of this study involved constraints to one interview or focus group per participant to minimize
52 participant burden. However, we continued recruitment with diverse roles of healthcare providers until
53 data saturation was realized, thereby yielding a rich and expansive view of perspectives shared.
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56 **Conclusion**

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3 Our findings highlight the challenges of intercultural care in primary healthcare settings. Healthcare
4 providers face significant challenges navigating cultural distance and non-medical contextual challenges
5 immigrant and refugee patients face. Since intercultural care requires multiple supports for patients and
6 healthcare providers, cultural navigators, and organizations acting in a brokering capacity are critical
7 components to engage in this space. Supporting cultural brokering services in primary care settings have
8 widespread implications for improving healthcare and reducing health disparities for migrants with
9 diabetes and/or obesity.
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11 12 **Data sharing statement**

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14 No data are publicly available. Sharing of data will be considered on a case-by case basis in collaboration
15 with research partners.
16

17 18 **Author's contributions**

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20 DCS, YC, TL, RY, KL conceptualized the study, obtained funding, and co-created research design. TL and
21 NO co-designed recruitment, interview guide, and coding manual. NO conducted all interviews. NO and
22 NM collected focus group discussion data and field notes. NO coded and analyzed the data supported by
23 TL, DCS, and NM. NO, TL, DCS, NM had significant input in data interpretation and constructing themes.
24 NO drafted the first manuscript with substantial intellectual contributions by DCS, TL, RY, YC AND KL. All
25 authors reviewed and approved the manuscript for submission.
26

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35

36 37 **Reporting checklist**

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39 SRQR
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NOVAD: MCHB-5AsT Partnership Project

Part II: Primary care providers: individual interviews or Focus group

Methodological underpinnings

This part of the study aims to understand current primary care practice with newcomers with obesity and/or diabetes, as well as elicit providers' mental models of what resources and services newcomer patients can access for support to address social determinants of health. We will work with clinic managers to determine the most appropriate method for providers, either individual interviews or lunch-hour focus groups. The goal is to understand current practice including barriers and facilitators as well as providers' awareness of available resources and services within healthcare, community, or other public services.

During the interview, participants' responses can be supported with questions such as "Can you tell me more about this? Could you describe this using a specific example from your practice?" Interviews are conversational, semi-structured, and focus on eliciting participants' accounts of their practice. This guide provides a memory aid for interviewer that includes key domains of inquiry for which data is to be collected. This research follows qualitative methodology where data collection and analysis are iterative and intertwined processes. Questions may be added if they arise as important to answering the overall questions.

Interview guide

Preamble

First I would like to briefly explain how we understand our work around obesity. Our goal is to help improve the health of the whole person. When we talk about obesity, we talk about a chronic condition with problems that impact your health and life, such as heart problems or pain or difficulty moving around. We are not concerned with weight loss or body size if someone is healthy. We understand obesity as a chronic disease that has many different, complex causes and drivers, including physiological, genetic, lifestyle, socio-economic, cultural, and psychological factors.

Warm-up questions:

1. How long have you been practising in Edmonton at this clinic. Are you a member of a PCN?
2. How often do you see patients with from South Asia (India, Bangladesh, Pakistan,..) and Africa background?
3. From which ethno-cultural communities?
4. How much of a concern is obesity and/or diabetes in your newcomer patient panel?

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6 *Content questions:*

- 7 1. Can you describe your experience with caring for newcomer patients with obesity and/or
8 diabetes?
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10 2. What are your concerns and challenges that impact on how satisfied you are with the
11 care you are able to provide for this population?
12
13 3. Could you describe any resources that you can refer patients to or collaborate with for
14 the benefit of newcomer patients with obesity and/or diabetes?
15
16 a. Within healthcare, within your PCN or within AHS
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18 b. In the community
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20 c. Other public services and resources
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22 4. In your opinion, what resources and services are needed for this population to improve
23 their health?
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25 5. Can you talk about a specific examples of a newcomer patient with obesity and/or
26 diabetes and the care plan you developed for this individual?
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