Role of cultural brokering in advancing holistic primary care for diabetes and obesity: a participatory qualitative study

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ABSTRACT

Objectives  Diabetes and obesity care for ethnocultural migrant communities is hampered by a lack of understanding of premigration and postmigration stressors and their impact on social and clinical determinants of health within unique cultural contexts. We sought to understand the role of cultural brokering in primary healthcare to enhance chronic disease care for ethnocultural migrant communities.

Design and setting  Participatory qualitative descriptive–interpretive study with the Multicultural Health Brokers Cooperative in a Canadian urban centre. Cultural brokers are linguistic and culturally diverse community health workers who bridge cultural distance, support relationships and understanding between providers and patients to improve care outcomes. From 2019 to 2021, we met 16 times to collaborate on research design, analysis and writing.

Participants  Purposive sampling of 10 cultural brokers representing eight different major ethnocultural communities. Data include 10 in-depth interviews and two observation sessions analysed deductively and inductively to collaboratively construct themes.

Results  Findings highlight six thematic domains illustrating how cultural brokering enhances holistic primary healthcare. Through family-based relational supports and a trauma-informed care, brokering supports provider–patient interactions. This is achieved through brokers’ (1) embeddedness in community relationships with deep knowledge of culture and life realities of ethnocultural immigrant populations; (2) holistic, contextual knowledge; (3) navigation and support of access to care; (4) cultural interpretation to support health assessment and communication; (5) addressing psychosocial needs and social determinants of health and (6) dedication to follow-up and at-home management practices.

Conclusions  Cultural brokers can be key partners in the primary care team to support people living with diabetes and/or obesity from ethnocultural immigrant and refugee communities. They enhance and support provider–patient relationships and communication and respond to the complex psychosocial and economic barriers to improve health. Consideration of how to better enable and expand cultural brokering to support chronic disease management in primary care is warranted.

STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ This study’s qualitative design provides in-depth insights in often invisible and under-researched care work cultural brokers do to support obesity and diabetes care in ethnocultural migrant communities.
⇒ Our participatory approach with engagement of cultural brokers in all stages of the research enhances trustworthy of our findings.
⇒ The participatory and purposeful sampling ensured representation from all major local ethnocultural communities that expressed increasing concerns around obesity and diabetes.
⇒ Participant observation was hampered by cancellations of group programmes during the summer months when our data collection occurred.
⇒ This study’s sample is limited to participants from one local organisation, but lessons learnt are relevant for regional or national and other healthcare contexts where cultural distance and racial disparities present challenges to care.

INTRODUCTION

In diabetes and obesity prevention and management, clinical assessment must identify physiological and psychological root causes, determinants of health, constraints and values to inform cocreation of clinical intervention.1 2 Immigrants are disproportionately at risk for developing obesity and type 2 diabetes.3 Migration impacts every domain of social determinants of health and healthcare,4–7 adding complexity to care.8 Premigration trauma, postmigration stress and discrimination9 interact with poverty, loss of social roles and social support and the misalignment of familiar cultural practices with the new socioeconomic context, leaving families without capacity to make their health a priority.10 Complex care needs for patients with migration backgrounds include food and housing insecurity, trauma and psychosocial stressors.6 Healthcare
services must advance their practice to serve this growing portion of society.

Healthcare professionals are rarely trained in the unique needs of immigrants and newcomers and may perpetuate barriers based on cultural distance, language difficulties, prejudices and implicit racial bias, which negatively impacts care. Health system constraints, heavy workload for providers and variable knowledge and skills further complicate effective care delivery.

Community health workers (CHW) focus on addressing these gaps in ethnocultural migrant communities in vulnerable circumstances by supporting navigation of healthcare and social resources. While established in the USA, there has been scant attention to CHW’s in Canada. CHW’s work has been shown to be helpful, but their roles in health are little understood and largely invisible. Linguistic and culturally diverse CHWs often work as cultural brokers, embedded in community relationships with deep contextual awareness of the life-reality of immigrants. Cultural brokering aims to ‘bridge gaps in cultural meaning or gaps in understanding’ between health professionals, patients, their community and the broader social system to innovate solutions, improve cross-cultural delivery of social and healthcare services and mitigate racial and ethnic health disparities.

To better inform health system change in primary care in Canada, we partnered with the Multicultural Health Brokers Cooperative (MCHB) to answer the question: what is the role of cultural brokers in supporting care outcomes and in filling the gaps in healthcare for immigrant and refugee patients with diabetes or obesity?

**METHODS**

**Setting and design**

A team of interdisciplinary researchers and a cooperative of CHW of immigrant and refugee backgrounds (the MCHB) together designed, and obtained funding for, a larger participatory multimethod study to address clinical and social determinants of health to advance obesity and diabetes prevention and management in vulnerable ethnocultural communities. This article reports on one component of the study, a qualitative, descriptive–interpretive exploration of the role of cultural brokers in primary healthcare to enhance chronic disease care. Other components of the larger study investigated experiences and gaps in care from the perspective of newcomer and immigrant people living with obesity and diabetes as well as the perspective of primary care providers. The work builds on our previous work on personalised conversations about obesity in primary care.

**Patient and public involvement**

Following principles of participatory and pragmatic research, a community advisory group (CAG), including eight brokers, met 16 times from 2019 to 2021 to codevelop research questions, methods and interpret findings as a means of continual verification of methods, analytical thinking and findings to ensure credibility and trustworthiness. Cultural brokers from the CAG vetted all proposed methods to ensure minimal burden and time required to participate in the study. The CAG contributed to writing and revising the manuscript. Annually, we met with policy-makers from the provincial health organisation, the municipality and a primary care network representing over 300 local family physicians, to discuss findings, implications and potential policy or programme responses.

**Theoretical considerations**

Theoretically and methodologically, this work has been influenced by concepts in medical anthropology including syndemics, intersubjectivity and relationality, ecological approaches to health, salutogenesis and participatory community-based research (online supplemental file 1). We have a pragmatic orientation to using theoretical approaches and methods to obtain the best data possible to answer research questions that matter to community partners and provide contextually rich information for decision-making and policy work. We embrace participatory research, deeply valuing the expertise of community partners throughout the process and reflexivity as a continuous process of bringing to awareness and making transparent how our own position as researchers shapes the knowledge we are cocreating. In addition to our participatory approach and continuous iterative collaboration with community partners, other strategies to ensure trustworthiness included methodological coherence, theoretical grounding and thick description including participant voice.

**Participants**

The MCHB identified concerns about increasing diabetes and obesity rates in eight major ethnocultural communities in Edmonton, an urban centre in Alberta, Canada. We therefore purposefully invited as participants, cultural brokers embedded in these eight communities with long-standing experiences caring for community members with diabetes and/or obesity (table 1). Brokers had between 5 and 20 years of experience, and hence the breadth and depth of experiences needed to provide relevant, rich and diverse data.

**Data collection and analysis**

We codeveloped with the CAG, a semistructured interview guide (see online supplemental file 2). A PhD cultural anthropologist (TL) conducted all interviews in 2019, which lasted 60–90 min, were audio-recorded and transcribed verbatim. To enhance trustworthiness, we triangulated interview data with observation of group programmes, field notes from interviews and observations, and notes from collaborative interpretation during monthly advisory meetings. We recorded analytical and reflexive thinking throughout the project.
Data were managed and coded in NVivo (QSR International Pty, V.12, 2018). Select interview transcripts were first cross-coded inductively and deductively by four researchers (TL, NNO, RY and DC-S). Codes were compared, discussed and synthesised into a coding manual at regular team and advisory meetings. TL applied the coding manual to all transcripts applying multiple codes to interview passages to maintain the entanglement of complex processes throughout analysis. Avoiding reduction of complexity is key to understanding lived experiences in its relationality within family, community, societal and global processes and an important means to enhance trustworthiness of the study. Over several levels of abstraction, TL constructed themes that illustrated relationships between patterns within and between codes discussing patterns and themes with the academic team and CAG in monthly meetings. Together with the CAG, we grouped themes into meaningful clusters to answer research questions. Within limits of this article, we provide thick description of context and setting, and rich quotes illustrating themes in the participants’ voice to demonstrate transferability of findings.

RESULTS

Ten cultural brokers participated in interviews (table 1) and two brokers allowed researchers to observe their group-based parenting programmes. All study participants were women, reflecting the predominantly female membership of the MCHB cooperative.

We identified six thematic domains (figure 1) that describe the role of cultural brokers in interaction with primary care for patients with diabetes and/or obesity from ethnicultural migrant communities. We report the results using both past and present tenses.

Past tense indicates experiences and data examples shared by brokers with the researcher during an interview, while present tense is used for analytical, interpretive patterns in the data. Quotes are presented in tables 2–4 and are edited minimally for readability and to reduce length.

Cultural brokers are trusted intermediaries

Brokers agreed that trust relationships and deep contextual knowledge are foundational for brokering practice. Brokers share the experiences of premigration and post-migration realities with the communities they serve, and of impacts these experiences can have on relationships, ways of living, identity and health. They have embodied knowledge of the ways of being in diverse communities, the aspirations and traumas of migration and the hopes and challenges of building a new life. As community members, brokers’ relationships to clients include expectations and rights common in the respective community. Many brokers described these relationships as family-like implying trust, and obligation to help in a comprehensive manner. They adapt the modalities of their work, such as time, place and mode of communication, to honour these relationships and be available whenever clients may require support (see representative quotes in table 2).

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Table 1  Participant characteristics

<table>
<thead>
<tr>
<th>Peer researchers/participants</th>
<th>Communities served</th>
<th>Gender*</th>
<th>Interview</th>
<th>Observation</th>
<th>Research design, analysis, writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 South-Asian</td>
<td>Female</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
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<tr>
<td>2 Chinese</td>
<td>Female</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>3 Filipinos</td>
<td>Female</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>4 Somali</td>
<td>Female</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>5 South-Sudanese</td>
<td>Female</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>6 Ethiopian/Eritrean</td>
<td>Female</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>7 Spanish-speaking South-American</td>
<td>Female</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>8 French-speaking African</td>
<td>Female</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>11 MCHB governance</td>
<td>Female</td>
<td>✔</td>
<td>✔</td>
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*The MCHB workforce is about 85% female (personal communication with Director) which reflects overall trends in gender representation in the social and community sector.54

MCHB, Multicultural Health Brokers Cooperative.
Cultural brokers’ embeddedness in cultural ways of being and their relentless efforts cultivating relationships across diverse communities and institutional partners places them in a trusted and deeply knowledgeable intermediary position between patients and primary care. Brokers interpret meaning, mediate in conflict and facilitate the cocreation of contextually meaningful solutions for care. Brokers build trust between community members and providers through their high level of cultural competence, relational capital, skill and dedication.

Cultural brokers develop a holistic, contextual knowledge of their clients’ story
As trusted intermediaries, brokers know their client intimately and can culturally interpret practices, living conditions and social and emotional determinants of health for care providers to ensure a full understanding of people’s needs. Accumulating insights across different clients and communities, brokers observe patterns in health and illness entangled with premigration and postmigration realities that may be little understood in the larger society including research, healthcare or policy domains.

Brokers developed complex mental models of diabetes and obesity. They spoke about attending to root causes including premigration trauma, immigration route, poverty, stress around income, housing, food insecurity, poor sleep and the health impact of the drastic change in food and activity practices implicated in moving to the Canadian context. They paid attention to mental health concerns such as challenges to identity, social roles and self-worth, changes to relationships, parenting, social capital and their to the interaction with obesity or diabetes. Brokers illustrated how these root causes contribute weight gain and illness. For example, poverty is a barrier to accessing quality and familiar foods. Unfamiliar urban environments, the harsh climate and limited access to reliable transportation constrain people’s ability to incorporate physical activity and social connection into daily routines. Trauma and poverty keep families in ‘survival mode’, where basic needs must take priority over quality of food, exercise, activities or rest. Financial insecurity aggravates mental health challenges, further impacting families’ coping resources and capacity; families are often physically and mentally exhausted.

Brokers use their cultural competency to interpret and appropriately respond to diverse perceptions and concepts of aetiology and management of obesity and diabetes. For
Table 2  Example quotes for thematic domains 1 and 2.

<table>
<thead>
<tr>
<th>Thematic domain</th>
<th>Example quotes</th>
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<tbody>
<tr>
<td><strong>Theme 1: Cultural brokers are trusted intermediaries due to their embeddedness in communities and shared migration experience</strong></td>
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<tr>
<td><strong>Shared experience</strong></td>
<td>Because we had been for eight years a refugee, we know when people are in need. We know how to go to the different country that you don’t speak that language. We share our experiences, we are laughing, we are happy, we are from the same community, we are seeing ourselves that, we are growing. We have our own plans. We put our money together and we say, ‘Oh now we are here’. Most of the women are driving cars. We want to be like them, we want to drive cars. Because when we were coming, we had our dream. Yeah we are dreaming.</td>
</tr>
<tr>
<td><strong>Family-like relationships</strong></td>
<td>We become like family with our clients somehow. We become close to them. We do what we can to not be too close to not to be overwhelmed by their problems, because if you are too close, all their problems come on you. So we can burnout easily. But that close to us, I think, this thing is particular to multicultural broker’s job.</td>
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<tr>
<td><strong>Trust</strong></td>
<td>It’s good because I am brand new and I am an immigrant and so I kind of….and I trusted the Broker of course. I know her from my community and I would be willing to do anything because I am brand new, I don’t know the people. If one of your community members asks you and there is a trust relationship, you just go ahead and do what they say It takes a long time to build relationships with them. An example that I have is that one client I met used to speak very little. Like she wouldn’t talk to me much. Three years later—so I’m talking about three years, third child [laughs], she’s able to actually hold a conversation with me for more than 15 minutes.</td>
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<tr>
<td><strong>Dedication to build long-term trust relationships</strong></td>
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<tr>
<td><strong>Contextual knowledge facilitates assessment and understanding of complex root causes and social determinants of health</strong></td>
<td>Especially for those who come from refugee camp, they’ve been through a lot...(of) stress and unexpected pregnancy and it’s always like the iron problem is there because again, the eating factor or in a refugee camp, they don’t have enough.(...) Stress and trauma. Stress and trauma is the major one with us, and that is the major cause for diabetes. Cause the food and the lifestyle is not really the contributor, it’s more the trauma and the stress.</td>
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<tr>
<td><strong>Recognising when people are in ‘survival mode’</strong></td>
<td>You see, their priority is to survive. Their priority is to pay bills. And their priority is to send money back home. It is not taking care of … calories in and calories out, right? I have seen many of the challenges that an immigrant family can face from coming to Canada and not knowing anybody, not being able to speak the language, husband working crazy amount of hours to support the whole family, wife getting pregnant, having children and not being able to even attend medical appointments because if husband doesn’t go to work for a day, that’s a big deal. And money—money is a big issue.</td>
</tr>
<tr>
<td><strong>Contextualising health behaviours in cultural practices</strong></td>
<td>The food they are eating is not something acceptable our health because we were eating back home, sugar, oily fried things but you were sweating, you were hot.(...)your daily life you were exercising but here, you don’t go outside and you don’t do exercise, you are not getting healthy because what you are eating and what you are doing, is really different, totally different I come from a very obese family myself like when—where being obese was a sign of wealth. A sign of, you know, not just wealth, a sign of superiority, I would say. The bigger you are that means you are bigger, you’re more—big equals big, right?</td>
</tr>
<tr>
<td><strong>Drastic change in opportunities for physical activity</strong></td>
<td>Even in the summertime they walk but it is not too much. When we go to shopping, we just take what we want and we go back. On the contrary, back home when you go to the market, you can spend three hours in the market. You don’t know that you are (walking) for 10 kilometers or more. Because everything is everywhere then you have to walk to find the good, the better ones. We have to walk a lot.</td>
</tr>
<tr>
<td><strong>Socioeconomic insecurity and eating practices</strong></td>
<td>Challenges? The business of life. (Parents) would be working two jobs. Parents would be coming in, the other parents coming out and they haven’t seen their child’s day, child’s pattern of eating and stuff like that. They would come in and say, ‘eat, eat, eat.’(...) ‘Oh did you eat?’ because I am so guilty. ‘Did you eat?’ ‘Ya, mom ya.’ ‘Oh there is something in there. Do you want to eat?’ ‘Mom, I’m not hungry’. ‘Oh you should eat!’</td>
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</tbody>
</table>

example, in one community fasting requirements affect diabetes management. In another community, large bodies are perceived as a sign of wealth. Brokers observed how dietary habits with little impact on health in the more physically demanding life in the country of origin, now negatively impact health because people cannot maintain that level of physical activity in the context of postmigration stresses, poverty and a car-oriented Canadian built.

Table 3  Example quotes for thematic domains 3 and 4.

<table>
<thead>
<tr>
<th>Theme 3: Navigating and facilitating access to care</th>
<th>Example quotes</th>
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<tbody>
<tr>
<td>Navigating and facilitating access to care</td>
<td>It’s important to focus on health before anything but we always target whatever is needed immediately to have—to find a doctor that speaks your language or maybe doesn’t speak your language but is receiving new patients is one challenge, that is close to your area is another. Then you finally find a doctor and we go from family doctor, pediatrician, if there is something going on with a family trying to find a specialist</td>
</tr>
<tr>
<td>Sensemaking of primary care and the importance of continuity of care</td>
<td>They’re not used to going for check-up. So going to doctor is kind of in some area a taboo, like you must be very sick. So having that mentality like you know, if I go to doctor that means I’m really sick, I’m not very well. So they kind of very closed to accept some medication or to accept like a service. They will be very much doubting and they’re not like openly even discussing their problem cause if they tell them and then they probably give them this chemical medicine and what are we going to do. And yeah, it’s going to doctors not as positive for a lot of people and it’s kind of stressed them. But then what I find is sometimes clients do not understand how important is—these follow up appointments are. They came from a culture they only see the doctor when the baby is about to come out. They see this is not necessary. But us brokers, we play a role in educating them, talking to them, and addressing these issues, yeah.’ Again, it might be a(n issue with) time and resource and also the relationship… does the client understand why am I booking this appointment again. You know? How important it’s—for the many times I will hear from a mom my health is unimportant, I am not going, I don’t think it’s necessary. Do the, you know, that understanding and I think that the bottom line will be the relationship is. They need, you know, understanding that this is very important for them to assess, this will be the benefits. I think that really, that piece need to be addressed.</td>
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<thead>
<tr>
<th>Theme 4: Facilitating communication and provider–patient relationships through cultural interpretation</th>
<th>Example quotes</th>
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<tbody>
<tr>
<td>Overcoming challenges to communication</td>
<td>Here the issue is being targeted and the information is provided but not in a way that the family feels comfortable and sometimes it’s only in one language only and even if you try to interpret the information when it's delivered is not coming from the doctor. It's coming from the interpreter.(…)Whereas if a physician knows a little bit more of a family they would understand that this family are either refugee or just new immigrants that are trying to, you know, live day by day and get by and survive, right? There is no such a thing as salads on the table because that doesn’t fill me or my child</td>
</tr>
<tr>
<td>Nurturing relationships and facilitating meaningful conversations</td>
<td>Sometimes I just go to the dietician or the nurse or whomever have seen the family and I just try to deliver the message in a more cultural way, right? Like I try to say it in words that the client can actually understand that this is not a statement for you to feel bad or nobody here is judging you. You know, my role also sometimes will start with also engaging with the doctor asking—when I see my client does not understand what’s going on, I will ask the doctor to—would you mind taking the time and explain that to her. Sometimes what I say is not heard, but what you said will be heard. So, yeah, talking, you know, starting with the doctor.</td>
</tr>
<tr>
<td>Brokers as partners in healthcare team</td>
<td>I would like to see actually—many times I see the physicians or the doctors will not directly communicate with us. I would like to see—establish that relationship between—close relationship between the healthcare team and the brokers so that we can together address the family’s issues and help them, yeah.</td>
</tr>
<tr>
<td>Bidirectional cultural interpretation</td>
<td>For me to be in this process, when somebody has diabetes or obesity, we have to prepare before going to the doctor. Or not to be offended by what the doctor said, or to know what they answer or what to ask the doctor. They can prepare then before. To do the information.</td>
</tr>
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Table 3  Continued

<table>
<thead>
<tr>
<th>Theme 4: Facilitating communication and provider–patient relationships through cultural interpretation</th>
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| Culturally safe communication and health education | So the word obese, I can’t mention. I can’t even say it to her even though I see that she needs a lot help. But I try as much as I can to say. I went with her to the Leisure Access and I said, ‘You know, while he is doing swimming lessons, let’s walk. That’s healthy. She accepted that which was really good because I didn’t want to say to her that’. But I said, ‘While they are teaching him, why are you sitting there? You don’t need to sit. You can walk the stairs and if you don’t want to do exercise, people they are walking. Do you see those people?’ She said, ‘Yeah, you are right. I have to walk’. That she started doing which is really great. She didn’t feel that I am going into her privacy but she felt it. She said, ‘You are right. I need to do that’.

We go back to why is my child obese. Is there a reason why my child because if you hear your child is obese, well you’re judging me, right? You don’t know where I come from, what I do and what I don’t, you know(...)but I would say that like every mother in the world and I have seen it where there is African, Asian or American, mothers are always looking after the best interest of the children. So, I think if the conversation starts first by acknowledging that they want the best for their children and everything is done with love and you know, dedication and so much compassion. I think if a physician says, you know, I know you love your child so much and this and this and that so I would strongly recommend you that, it comes—the delivery of that information comes out much easier to hear than if someone says your child is overweight because it’s more like attachment than kind of a family matter and we go back why.

Obesity is there but if I translate in my language, it would be too much. They would feel like, ‘Oh, what are you talking about’? Sometimes a visual picture is good because they can see, even though we didn’t say anything. They will understand. Some of them they worry about their kids who are obese. Because I see a lot in my community their kids, they are obese. The parent who understands, they worry. The woman who doesn’t understand, they think that it’s healthy.

environment. Brokers emphasised how this requires a tactful approach to have meaningful conversations about food, eating practices, weight and health.

Through their knowledge and relationships, brokers support identification of client’s complex root causes of diabetes and obesity and facilitate communication of sensitive information to the care provider (see representative quotes in table 2).

Facilitating access to care

Brokers play an essential role in mediating access to healthcare through navigation, sensemaking, cultural interpretation and practical support. Brokers mitigate access barriers by connecting families with bilingual physicians, connecting clients without immigration status with physicians willing to care for them, providing child-minding for medical appointments, support cost and navigation of transportation and facilitating relationship-building with providers.

Brokers help clients understand Canadian primary care and its focus on prevention, which may differ from their experience. In some cultural contexts, having no symptoms equates to no illness, and people seek urgent care when symptoms are severe. Brokers familiarise clients with a preventive approach by identifying opportunities to connect them with stable primary care. Brokers emphasised how pregnancy is a time when people are open to prevention and regular interactions with physicians. They enhance care continuity by supporting follow-up and ongoing education.

Brokers observe that clients are often unable to benefit from chronic disease supports through interdisciplinary care available in the local primary care model. There is a mismatch between the design and delivery of programmes and immigrants’ complex realities. Examples include written materials that are inaccessible for people with language barriers; communication via phone messages in English, lack of access to and skills with technology; inflexible programme schedules and strict no-show policies and lack of programme personalisation for their specific needs. Brokers identified the need for primary care to proactively engage with ethnocultural communities through intermediaries to help familiarise the care model, build trust and relationships and cocreate tailored care delivery (see representative quotes in table 3).
Table 4  Example quotes for thematic domains 5 and 6.

Theme 5: Cultural brokers give practical support to address root causes: connecting, navigating, information brokering, fostering cultural continuity and autonomy

<table>
<thead>
<tr>
<th>Thematic domain</th>
<th>Example quotes</th>
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<tbody>
<tr>
<td>Flexible, wrap-around care</td>
<td>But like weekends, weekdays, it doesn’t matter. I do make sure that they know that I work from nine to five but we go back to we’re with human need and you don’t know. Like I have received phone calls at three a.m. in the morning and I feel so bad because I know there are children involved and you pick up and you never know if it’s family violence or you had an accident or you’re in the middle of the street.</td>
</tr>
<tr>
<td>Basic needs</td>
<td>Our work is holistic ...if they don’t have a family doctor, we can help to have a family doctor. If they don’t have food, we apply for the Food Bank. If they don’t have clothes or basic needs, we help them. If they are looking for housing, we apply for housing for them. We also can go with them on the consultation when they go to their doctor. Most of the times I accompany them because I feel like okay, I told them that they could so I’m coming with them to see if they actually receive the support or they actually took the time to go through all the documentation because sometimes you see a bunch of papers and you don’t want to do anything, especially when it says photocopy, print and fax. I don’t have a photocopy here. I don’t know how to print and neither have money to fax and so I go step by step and I assess the family and I usually target whatever is needed the most at the moment. It is usually food. Is usually food and diapers and milk and … Is the first thing. Like to survive you need that.</td>
</tr>
<tr>
<td>Existential needs: companionship, fostering social connection, fostering independence</td>
<td>My role there was to support her, guide her and hold her in a sense,(…) I was there to kind of remind her that she was still a human being that needed to be okay,(…) So my role was to support her, to be very compassionate and unconditional support, you know,(…) I tried to like let her understand that she had support. She had support here. There were people that were looking after her, caring for her and God was with her and then we go back to all of what she believed in and she was able to somehow change a few things but it’s the culture. It’s what is expected from them, right? You know, when we do the parenting groups, we talk about health; that is one topic. We talk about life, stress, because newcomers, when they come here they have a lot of challenges. (…) So holistically, as a Broker, we are helping those to minimize to go to mental health because if we didn’t take care of that, these people they would go down to (have) mental health (challenges). If they go to (have) the mental health (challenges), obesity will come because they don’t know what they are eating. And so part of our work is not just filling out forms, right? It’s connecting families with others. You know, showing them the city, showing them around, connecting them with other agencies where they can find the same or kind of like support that we provide so they don’t feel like they depend on me because I like to empower them and for them to go home and I will be happy to see them one day in the street, right?</td>
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Theme 6: Long-term, hands-on support for at-home management and healthy living

| Long-term follow-up and supporting at-home management | The follow-up for us is not a day or two. Follow-up for us is a year or two. So they stick to us like crazy until the next day will come and until the next issue comes. They never leave us. That’s reality, I’m pretty sure. That’s good Brokers Sometimes when they have medication, I have to follow up with that medication, because you know some clients—they don’t read and write. They need reiteration, reinforcement. I take that role very seriously. So, yeah, and then educating her, supporting her emotionally, and also discussing with her diet too. Like, what are some foods that are cheap and that she can eat. That’s also my role. And then when moms with diabetes have, you know, also my role is making sure that she is following the appointments because our moms, sometimes they don’t adhere to the appointments. Checking that she is doing her sugar and, yes, the morning walking and all that. You know, it’s just general holistic discussion that we have to address this. What we are doing is a prevention. We don’t want an intervention later.(…)It is not easy for when you are talking about eating things. It is very hard, especially, people who are…if the mother is at home and cooking the food, it is different than the mother who is going to school or working two shifts or three shifts. That is another problem. It’s a challenge how to do it, when to do it, what to start, all that. |
| Supporting cultural continuity in alignment with at-home management | Like, at home, back home at night, all we eat was the red beans for supper instead of bread and all that. Yeah. That was rich, so we keep on reminding the families, you know, what different kind of food that we had and was really so rich. Very rich. And we can do it here. Or maybe our children don’t like it because we don’t cook it often. It’s a culture that’s put behind. |

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Table 4 Continued

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<td>Fostering peer-support fostering independence</td>
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<td>Brokers’ need for partnership with primary care to support their role</td>
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| Brokers observe a gap in health and food literacy and economic root causes of diabetes and obesity in clients’ lives. The MCHB’s position outside of the regulated healthcare organisations enables them to flexibly respond to whatever needs arise for children, families or community. Brokers work holistically and longitudinally to stabilise families financially, socially and emotionally through mobilising resources and knowledge, navigating new environments, fostering social connection and agency. Brokers navigate and support basic needs with income, housing, food, social connection and information. For families in ‘survival mode’, brokers respond with holistic support not constrained in scope or mandate. Brokers locate resources and ensure families receive supports through application support, advocacy and follow-up. Once families are settled and life is more ‘certain’, their topics of healthy living can be addressed.

Long-term, hands-on at-home prevention and management
Brokers observe a gap in health and food literacy and management strategies that are realistic for their families’ context. They provide practical support to mitigate management challenges such as time, money and stigma. They take responsibility for following up on healthcare encounters to help clients understand medical information given and implement it in their lives.

Diabetes and obesity require many adjustments in people’s lives, particularly challenging in the context of poverty, stress, cultural distance, isolation, language barriers and culturally nuanced views of illness and care. For example, purchasing and taking medications is difficult with food insecurity, poverty and language barriers. Brokers support accessing and adhering to medication. Additionally, they work to help families adapt to new food...
environments while supporting cultural continuity. They help clients familiarise themselves with foods available in local stores, identify ethnic stores and support integration of new foods and cooking skills with cultural food knowledge and practices. Supporting cultural continuity strengthens identity, confidence and sense of agency about health within the new food environment.

In group programmes, brokers facilitate conversations on health information, foods and eating practices and how health advice can be made realistic, acceptable and manageable within the community and family context. Brokers carefully weigh when and how to provide information and welcomed involvement of healthcare professionals in providing education in the community setting (see representative quotes in table 4).

**DISCUSSION**

Research on the role of community health workers (CHWs) in Canada is scarce. This study aimed to understand cultural brokers’ role in diabetes and obesity care. Findings contribute important insights relevant for enhancing chronic disease care for ethnocultural migrant communities.

Cultural brokers extend and enhance primary care for people living with diabetes or obesity from ethnocultural immigrant communities. We illustrate six domains where cultural brokering bridges communities and primary care by building relationships, mobilising and transforming knowledge bidirectionally to support context-informed and sustainable chronic disease management (figure 1). Cultural brokers act as trusted intermediaries between individuals, families and communities and primary care services and providers. Their deep knowledge of the client’s story contributes context information to support clinical assessment. Brokers’ work to navigate primary care services and enable individuals to attend appointments, getting medications filled, taking them, and to integrate changes needed for health into their lifeworld. During a clinical visit, cultural brokers facilitate optimal knowledge and meaning transfer by providing cultural translation in addition to linguistic translation. Brokers support individuals and families holistically in areas of life that are outside the scope of primary care, but important social determinants of health. Finally, cultural brokers’ long-term relationships and community embeddedness allows them to support health and food literacy tailored to each family’s and community’s unique circumstances and needs.

Recognising cultural brokers as vital partners in primary care has important implications for improving care, enhancing the Patient Medical Home Model of longitudinal, interdisciplinary, team-based care and addressing racial disparities in health. Through partnering with cultural brokers, providers can build better rapport with people living with diabetes or obesity; ameliorate cross-cultural communication; improve and destigmatising assessment, diagnosis and treatment; more effectively facilitate chronic disease management and better personalise treatment approaches.

Three principles that are key to cultural brokering success align with primary care to support such partnership. First, relationality as a core value in primary care entails contextually informed, non-judgemental, strengths-based communication to build trust for people to seek help, express concerns and ask questions about diagnosis and treatment. This is paramount in obesity care where understanding the individual’s story, strengths and values is vital to develop realistic, meaningful and whole-person options for healthy living. Cultural brokering realises this through relationship-centred and holistic wrap-around care that expands on the scope of regular practice. Relationship-centred care aligns with person-centred care but expands beyond the provider–patient relationship and includes allied health professionals, the health system, as well as families, communities and health and social resources. Primary care providers need awareness of the diversity of human perception of health and illness and associated practices to question assumptions and explore what is going on with the people they care for. Cultural brokers are essential intermediaries bridging the impact of cultural distance, premigration and postmigration trauma and stereotyping that can undermine a patient’s trust, sense of agency, and relationship with health professionals.

A second principle underlying cultural brokering is an ecological and syndemic perspective. Brokers recognise the entanglement of individual health with families, community, socioeconomic and political environments, and observe the interaction of illnesses in populations living with trauma experiences in the context of vulnerable socioeconomic circumstances. While there is growing recognition of these interactions, primary care that is responsive to the syndemic effects is difficult to realise without change in health and social policy, and medical training. Cultural brokers are advocates for change and key actors in the health ecosystem responding to multiple health concerns and contextual vulnerabilities holistically.

Finally, cultural brokering focuses on strengthening individuals’, families’ and communities’ resources and capacities to health aligning with primary care’s orientation on prevention. Salutogenesis is a theoretical framework for health promotion that highlights meaningfulness, manageability and comprehensibility as components of ‘general resistance resources’ vital for better health outcomes in the face of challenges. Brokers strengthen resistance resources by assisting people in making sense of their health, care and new environment (comprehensibility); by fostering social connection, meaningful relationships and occupations and supporting the people they serve in realising their potential (meaningfulness) and by cultivating cultural continuity that helps clients meet basic and existential needs (manageability and meaningfulness).

Our findings expand on previous research highlighting the importance of brokering support for building patients’
competence and confidence in engaging with their health and healthcare, and building capacity for cultural safety for improving equitable access to health. Cultural brokers as partners to primary healthcare support the goals of patient-centred care, team-based, comprehensive and integrated care and care continuity. Despite their success in improving health and access to care, cultural brokering is largely invisible. Organisations struggle with precarious funding and chronic work overload, aggravated by disproportionate impacts of the COVID-19 pandemic on marginalised populations. A transformation in the healthcare system to recognise and support cultural brokers as partners in primary healthcare is long overdue. To realise this, there is a need to break down power differentials between providers, brokers and patients, to formally recognise the contributions of cultural brokers and support their care model with sustainable funding.

Involvement of cultural brokers in primary care creates safe spaces for mutual understanding, trust and practice cultural humility. Such a partnership can catalyse safe spaces for mutual understanding, trust and practicing cultural humility. Such a partnership can catalyse breakdown of power differentials between providers, brokers and patients, to formally recognise the contributions of cultural brokers and support their care model with sustainable funding.

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CONCLUSION

Cultural brokers work in the gaps where social determinants of health and cultural distance hamper access to care, and the ability of families to move beyond survival to attain and navigate the means to prevent and manage diabetes, obesity and other chronic diseases. Cultural brokers enhance the ability of primary care to address health in a syndemic manner, and mitigate environmental or situational impacts exacerbating illness in ethnocultural migrant communities. Cultural brokering aligns with the relational, personalised and ecological approach of primary care highlighting the opportunities for partnership with cultural brokers. Findings are relevant nationally and for other healthcare contexts beyond primary care where cultural distance impacts care.

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Data availability statement Data are available upon reasonable request. No data are publicly available. Sharing of data will be considered on a case-by-case basis in collaboration with community partners.

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## SUPPLEMENTAL MATERIAL 1

### Theoretical concepts

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<th>Definition</th>
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<tr>
<td>Syndemics</td>
<td>&quot;The syndemics model of health focuses on the biosocial complex, which consists of interacting, co-present, or sequential diseases and the social and environmental factors that promote and enhance the negative effects of disease interaction.&quot;(1)</td>
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<td>Relationality</td>
<td>Relationality means to understand any phenomenon in relation to others. Relations direct perception, experience, sensemaking, and actions. We take a critical relational perspective that recognizes the unequal power relations that shape experience, identities, opportunities, and constraints to living life well. (2,3)</td>
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<tr>
<td>Ecological model of health</td>
<td>Ecological perspectives of health consider the multiple and interacting determinants of health including people's physical and sociocultural environment. (4)</td>
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<td>Salutogenesis</td>
<td>Salutogenesis is a theoretical framework for health promotion that focuses on the origins of health. Central is the concept of <em>sense of coherence</em> as an understanding of life as more or less comprehensible, manageable, and meaningful. (5)</td>
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<td>Participatory research</td>
<td>Research is a collaborative process beginning with identification of a need, conceptualization of research questions, design of methodologies, application for funds, selection of participants, data collection, analysis, and reporting. (6)</td>
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<td>Pragmatism</td>
<td>Using and combining theoretical approaches and methods to obtain the best data possible to answer research questions that matter for community partners and provide contextually rich information to make decisions to act and support policy work.(7)</td>
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SUPPLEMENTAL MATERIAL 2

Interview guide

Methodological underpinnings

This study draws on interpretive qualitative approaches where data collection and analysis are iterative and intertwined processes. The goal is to describe and understand participant experience, their sense-making of the experience, and embodiment of experience; including an interpretation of the participants' experience individually, and in comparison with their social environment in the context of their socio-cultural, political, and historical situation. We acknowledge the relational nature of interview dialogue and recognize our participants as co-researchers, and the understanding that is achieved as co-created knowledge. Based on these methodological underpinnings, the interviews use minimal structure, only to direct and re-direct, if necessary, to the phenomenon under investigation and will allow participants to share their experience freely. During the interview, the narrative of the participant can be supported with questions such as “Can you tell me more about this? Could you describe this experience with more detail?” Interviews are conversational, participant-led, and focus on eliciting participants’ accounts of their experience. This guide provides a memory aid for interviewer that includes key domains for which data is to be collected. Questions may be added if they arise as important to answering the overall questions.

The focus phenomenon is the experience of working as a cultural broker within newcomer families with concerns about obesity and/or diabetes. Interviews will pay attention to three aspects:

- The experience of working as a cultural broker with newcomer families living with obesity and/or diabetes, including the meaning (their feelings and judgements, implications in their life) for the participants.
- Participants’ sense-making of their role (participants’ why? The social, cultural, political, economic conditions that shape their experience considering temporality [how do past interpretations of experience, present and embodied experience, and future anticipation of experience shape present experience?], intentionality (life projects), and relationality (within families, within MCHB co-op, within neighbourhood, within newcomer community, within home ethno-cultural group).
- Participants’ experience of working with or alongside healthcare and accessing resources to improve well-being for their clients.

Interview guide

Warm-up questions:
1. How long have you been with the MCHB Co-op?
2. How did you become involved with the MCHB?
3. How many families do you usually care for at a time?
4. Which ethno-cultural communities do you serve? In which neighbourhoods do they live?
5. Where are you from originally, and what was your profession in your home country?

Content questions:
1. What is your day-to-day work look like as a cultural broker?
2. How has it been working with newcomer families where obesity or diabetes is a concern? Can you describe your role in their care?
3. How has it been for you to interact with physicians and other healthcare providers in the care of newcomers with obesity and/or diabetes?
4. How is it for you to interact with public services on behalf of your clients?
5. What do different public services or community resources mean to you and to your work as a broker?
6. How is your experience of trying to affect change for the benefit of the health of the families you work with (at municipal level, government services, health system)?