

# BMJ Open Patients' perspectives on integrated oral healthcare in a northern Quebec Indigenous primary health care organisation: a qualitative study

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## ABSTRACT

**Objective** Patient-centred care is considered to be an important element in the evaluation of integrated healthcare and has been effective in addressing oral health disparities. This study explored the patients' perspectives of patient-centred integrated care in oral health services integrated into a primary healthcare organisation serving a northern Quebec Cree population.

**Design** This study used a multiple case study design within a qualitative approach and developmental evaluation methodology. Two theoretical models, Picker's Principles of Patient-Centred Care and Valentijn's Rainbow Model of Integrated Care, guided data collection and data analysis. The thematic analysis included transcription, debriefing, codification, data display and interpretation.

**Setting** This study was conducted in purposefully selected four Cree communities of Northern Quebec.

**Participants** Adult patients in need of oral healthcare and who attended the local dental clinic were identified and recruited by maximum variation sampling and snowball techniques.

**Outcome measures** Patients' perspectives of patient-centred integrated oral healthcare.

**Results** Data analysis generated six major themes: enhanced accessibility, creating supportive environment, building trust through shared decision making, appreciation of public health programmes, raising oral health awareness and growing cultural humility among healthcare providers. Patients identified the integration of dental care into primary healthcare with respect to co-location, provision of free oral healthcare services, care coordination and continuity of care, referral services, developing supportive environment, shared decision making, oral health promotion and culturally competent care.

**Conclusion** These results confirmed that patient-centred care is an important element of integrated care. Patients valued the use of this concept in all domains and levels of integration. They recommended to further strengthen the clinical integration by involving parents in oral health promotion as well as optimising care coordination and empowering a supportive environment in organisational integration.

## Strengths and limitations of this study

- To our knowledge, this study is the first worldwide research that explored the patients' perspective in regard to the integration of oral healthcare in an Indigenous primary healthcare organisation.
- In-depth individual interviews allowed a rich exploration of patients' perspectives on patient-centred integrated oral healthcare in this organisation.
- Results suggest that patient-centred care is an important element of integrated care and it can be facilitated by the factors such as co-location, provision of free dental services, oral health promotion, referral services, care coordination, supportive environment, shared decision making and culturally competent services.
- Results are based on small sample size of patients recruited from Cree community hospitals.

## INTRODUCTION

Throughout the late 20th century, influential works such as Engel's biopsychosocial model and Balint's Patient-Centered Medicine in North America and Europe have inspired the shift of healthcare service delivery towards a holistic patient-oriented approach.<sup>1-3</sup> During the late 1980s, patient-centred care (PCC) was conceptualised and defined by the Institute of Medicine as: "providing care that is respectful of, and responsive to, individual patient preferences, needs and values, and ensuring that patient values guide all clinical decisions".<sup>4</sup> PCC applies to all levels of healthcare organisations irrespective of population and ethnic or cultural groups.<sup>3 5</sup> Research has demonstrated that implementing PCC in healthcare organisations can reduce healthcare costs and improve healthcare quality and outcomes, patient adherence, patient satisfaction and care provider satisfaction, and has the potential to alleviate healthcare disparities.<sup>3 6-9</sup>

The WHO has also developed a global strategy for programmes that involve PCC in integrated care to deal with the barriers encountered by current health systems such as demographic transition, highly prevalent chronic diseases and subsequent economic burden.<sup>8</sup> As defined by the WHO, integrated care is ‘bringing together inputs, delivery, management and organisation of services related to diagnosis, treatment, care, rehabilitation and health promotion’.<sup>10</sup>

Several healthcare associations and organisations including the Canadian Nurses Association, Canadian Medical Association and Health Action Lobby have identified PCC as one of the five foundations for integrated care, along with access, relational continuity, management continuity and information continuity.<sup>8 11 12</sup> Moreover, ascribing a significant role to PCC in oral healthcare, several oral healthcare organisations in Europe, Australia and North America have introduced PCC as a core element in the evaluation of integrated healthcare services.<sup>3 4 13–15</sup> The PCC model of integration of oral healthcare within primary health has been highlighted to be effective in addressing oral health disparities among Indigenous communities.<sup>16 17</sup> Moreover, the role of PCC becomes imperative in the case of Indigenous populations considering historical trauma due to colonisation and assimilation policies.<sup>18</sup> These historical traumas included loss of homeland, loss of family for children in residential schools, loss of traditional cultural practices as well as mistrust, distress and fear towards the intentions of non-Indigenous people.<sup>19 20</sup> Hence, consideration of Indigenous patients’ cultural values, beliefs and preferences, as well as their holistic vision of health, is essential in the implementation of PCC in Indigenous populations.<sup>18</sup>

According to the recent WHO report there is still lack of evidence focusing on the application of people-centred integrated care in primary healthcare settings.<sup>8</sup> Furthermore, as highlighted in a systematic review by Mills *et al* in 2014, there is still a gap in regard to the application of PCC concepts from patients’ perspectives and in oral health research.<sup>3</sup> Also, Harnagea *et al* emphasised in a recent scoping review the lack of evidence on the outcomes of integrated primary oral healthcare programmes among disadvantaged populations.<sup>21</sup> Therefore, the objective of this study was to explore patients’ perspectives and experiences in regard to patient-centred integrated oral healthcare in a primary healthcare organisation serving a northern Quebec Cree population.

## METHODS

### Study design

This collaborative study was part of a larger Canadian Institutes of Health Research-funded project entitled ‘Oral Health Integrated into Primary Care: Participatory Evaluation of Implementation and Performance in Quebec Cree Communities’.<sup>22</sup> We adopted a multiple case study design within a qualitative approach and developmental

evaluation methodology.<sup>23 24</sup> The case study design allows an in-depth understanding of a single or small number of ‘cases’ in their real-world context’.<sup>24</sup>

Developmental evaluation addresses the need of the key stakeholders by building a partnership between them and researchers in the assessment of emerging initiatives in their organisation.<sup>23</sup> Accordingly, the project started with a planning phase which included a 3 days stay in one of the Cree communities (Mistissini), followed by a 2 days video conferencing workshop few months later (Mistissini and Montreal).<sup>25</sup> The details of the workshop have been published previously.<sup>25</sup> In the planning phase, the research team conducted several oral presentations and had several focus group discussions and individual face-to-face meetings with Cree community health centres’ administrators, community workers, healthcare providers and patients. During these various communications, different aspects of the study, such as research objectives, data collection, recruitment strategies, as well as conceptual frameworks were discussed.

We followed the ethical guidelines of Ownership, Control, Access and Possession (OCAP) for First Nations.<sup>26</sup> This manuscript has been prepared according to the Standards for reporting qualitative research.<sup>27</sup>

### Study setting, participants and data collection

Over 18 000 Cree people of Eeyou Itchee inhabit nine remote communities in the eastern James Bay region of northern Quebec, Canada.<sup>28</sup> The health and social services of these communities are provided by the Cree Board of Health and Social Services of James Bay (CBHSSJB).<sup>15</sup> This organisation developed two Strategic Regional Plans, 2004–2014 and 2016–2021, which mandate a model for the integrated delivery of health and social services in the Cree communities including oral healthcare.<sup>15 29</sup> Each community has a Community Miyupimatisiisun (wellness) Centre (CMC) that provides healthcare and social services through a team of primary healthcare providers, including para-professional community health representatives.<sup>28</sup> Each community has a well-equipped local dental clinic where free services are provided by dentists and dental hygienists.<sup>28</sup>

This study was conducted in four Cree communities that were purposefully selected based on population size as well as on geographical, cultural, healthcare and oral care characteristics. We used maximum variation sampling and snowball techniques to identify and recruit adult patients (≥18 years) in need of oral healthcare and who attended the local dental clinic in 2016–2017. In-depth audio-recorded interviews, on average 60 min long, were conducted in English or French by two research team members trained in qualitative methods. These team members had no existing relationship with the participants. We designed the semistructured interview guide based on the Rainbow Model of Integrated Care.<sup>30 31</sup> Data collection and analysis were performed concurrently until data saturation was reached.<sup>32 33</sup> Data saturation was reached after the 11th interview; nevertheless, data

collection was continued up to 14th interview to ensure the saturation level.

### Data analysis

Data analysis included transcription, debriefing, codification, data display, thematic content analysis and triangulation.<sup>32</sup> We used the eight Picker Principles of PCC and Valentijn's Rainbow Model of Integrated Care as conceptual models to guide exploring and determining the scope of elements of PCC within the integrated care network.<sup>30 31 34</sup> Picker's principles comprise: respect for patient's preferences, information and education, access to care, emotional support, involvement of family and friends, continuity and transition, physical comfort and coordination of care.<sup>34</sup> The domains of the Rainbow Model of Integrated Care are characterised by three categories: scope, types and enablers of integration. Scope comprises person-based and population-based care; types include system, organisational, professional and clinical integration; and enablers include functional and normative integration.<sup>30 31</sup> We performed a combination of deductive and inductive thematic content analysis using ATLAS.ti V.1.6.0 software (ATLAS.ti, GmbH; Berlin, Germany).<sup>35</sup> The deductive approach encompassed the creation of provisional categories derived a priori from the conceptual models. This was embedded with an inductive approach, which consisted in adapting these provisional categories into new categories and themes based on the content of the transcripts.<sup>32 35</sup> Two research trainees (RS, NK) independently performed the analysis and then discussed the emerging codes in detail until they achieved a consensus on emergent categories and themes. The thematic analysis was then revised by other research team members (EE, YC, FG, CB, JT, MEM). The results of the study were discussed and cross validated with community stakeholders.

### Patient and public involvement

Patients have been actively engaged and accepted to participate in the study. The study results will be shared with the community members via CHBSSJB.

## RESULTS

Table 1 presents the demographic profile of the 14 participants. Among them, four were working as healthcare providers who attended the dental clinic as patients for their treatments. The following six themes were generated from our thematic analysis.

### Enhanced accessibility

Participants highlighted the impact of the integration of oral health into primary healthcare in facilitating the access to oral healthcare in terms of the easily accessible location of the dental clinic as well as its proximity within the CMC. Most of the patients perceived co-location as expedient, especially in case of complications and emergencies.

**Table 1** Sociodemographic characteristics of participants (n=14)

Characteristics	No. participants
<b>Gender</b>	
Male	2
Female	12
<b>Age, years</b>	
31–40	7
41–50	3
51–60	4
<b>Ethnicity</b>	
Cree	13
Non-Cree	1
<b>Employment</b>	
Employed	13
Non-employed	1

I love how it's [location of the clinic] two in one, like almost... I know elsewhere it's completely separate. (Participant 3)

I think it would be better to be close just in case sometimes complications do happen, you know it's low chance but it does happen so. (Participant 4)

They also valued the provision of free oral healthcare services within integrated healthcare.

[dental services are covered] It makes a difference... I take advantage of it... I know it's there... that's why I always come. (Participant 11)

[fact that the treatments are free] It's the best thing ever! I love it! (Participant 3)

Participants also appreciated referral mechanisms of integrated care at the CBHSSJB organisation. These referral mechanisms facilitated provision of specialised dental treatments by the linkage of primary healthcare to secondary or tertiary levels of healthcare.

I love how [the orthodontic service] has weekend visits so we don't have to miss work, most of the time I bring my kids. (Participant 3)

Patients acknowledged the need for better care coordination to tackle the long waitlists and to enable follow-ups. They also linked the problem of long waitlists with the limited number and non-permanency of dental care providers. Nonetheless, they valued the competencies of dental care providers in providing quality dental treatments.

My son came once then they never called back... I did the fill-up sheet... they contacted me 3 months later... and it was like a pain no. 5. ... and the time when we got here, they had to pull out his tooth (Participant 13)

The waiting lists and I don't think they are being called! I saw that on Facebook that people complain that .... they made appointments for them because they were in pain and there is still no call. (Participant 1)

I think ... we would... just need another dentist. Because that's what keeps the long list. (Participant 6)

### Creating supportive environment

Patients expressed the importance of enabling the care, especially for those with dental fear and anxiety, by creating a supportive environment at the clinic. They preferred the dental clinic environment and oral health-care team to be more welcoming and empathetic, which in turn can provide psychological support for them.

Yeah, the approach, the environment. You know the ... positivity in the room. And here like I said they walk in and they're terrified. They won't even open their mouth. (Participant 4)

It needs to be behavior: 'Hi, how are you? When was the last time you saw the dentist?' ... To be more humane, more sympathetic. It will be very nice for someone to come ... instead of filling the form, to talk with the receptionist and to leave with an appointment ... that's ideal. (Participant 13)

### Building trust through shared decision making

Participants highlighted the importance of including patients in integrated care by engaging them in shared treatment decision making. Most of the patients recognised the value of information given by oral health-care providers on treatment options and respecting their choices and preferences.

To be engaged in the treatments, some do and some don't. I had a bad experience with my one dentist ... The other one saying, 'Ok if that's the way you want it.' Then they'll just tell us, 'This is what's gonna happen if you do it this way.' (Participant 4)

Furthermore, participants expressed that shared decision making reinforced building trust with the healthcare providers and improved the quality of care.

I think empowering the person to take part in the process, is not a bad thing. It actually establishes more of a relation—trust. (Participant 5)

### Appreciation of public health programmes

Participants appreciated the continuity of care via CBHSSJB public health programmes, which linked promotive and preventive oral healthcare to primary healthcare. These public programmes included daycare-based and school-based oral health programmes for children and *Â Mashkûpimâtsît Awash* programme for pregnant mother and child care where promotive and

preventive dental services were offered by dental and non-dental care providers.

My grandson is in kindergarten now ... They [dental care providers] do some kinds of things at the school ... They just teach him how to brush, they take the big teeth model and they teach them to use the brush ... and they give them little toothbrushes in packages. (Participant 7)

### Raising oral health awareness

Patients discussed lack of oral health awareness among the community residents. They expressed the need to promote oral health and increase oral health literacy via creating awareness programmes and engaging parents in oral health education.

I think, for me ... I learned how to take care of my teeth at home with my parents. (Participant 9)

The parents ... should be, I think it's maybe the number one spot. [Some of the parents should be educated more?] Yes. Cause I know some parents have dropped out of school very early and they didn't go through a lot of what indicate a parent when it's, like I said ... the dentist visits the schools... and a lot of parents don't have that. (Participant 4)

Patients proposed novel ideas for awareness campaigns via radio, television, social media and short videos and also during social events such as health nights (youth awareness event), youth festivals and sports events.

Videos, short videos like showing someone brushing their teeth like two seconds of that ... flossing and then a really nice smile, ... different products that could be used, just like ... twominutes video ... the beginning of the video to make it like that interesting ... it can go on there... they can share it. (Participant 13)

Here it's sports, hockey—to advertise ... It would be very helpful. People might not listen but you know it gets in their heads. (Participant 4)

### Growing cultural humility among healthcare providers

Participants appreciated having Indigenous people among dental teams and hearing Indigenous language during provision of care. Patients also highly valued non-Cree health professionals' interest in learning their culture, traditions and language by attending cultural activities and traditional ceremonies that helped them in developing affinity and building trust with the community. They also praised non-Indigenous care providers' attempts to learn and speak Indigenous language to make them feel comfortable during treatment.

I like that [dental care providers] like to learn. Like they go with the family when they go in the bush or whenever, to learn. Or to the gravel pit ... There's lots of things you can learn over there. They're always doing stuff ... (Participant 8)

Even the dentists. They tried the Cree [Cree word] ‘keep your mouth opened’ and they’re amazing! (Participant 3)

## DISCUSSION

It has been two decades since the concept of PCC was first introduced to integrated care.<sup>36</sup> Shaw *et al* identify PCC as a crux of integrated care and recommend including the patient’s perspective as an organising principle of service delivery.<sup>36</sup> To our knowledge, this study is the first worldwide research that explored the patients’ perspective in regard to the integration of oral healthcare in an Indigenous primary healthcare organisation.

Study findings demonstrate that these patients valued the integration of oral healthcare in primary healthcare in regard to co-location, free oral healthcare services, coordination and continuity of care. They highlighted the importance of respecting their perspectives in clinical decision making, integrating Indigenous personnel in dental teams, optimising care coordination, providing a supportive environment and oral health promotion. The emphasis on culturally sensitive care, development of a more supportive environment and parental engagement for oral health promotion were also linked to addressing the historical impacts such as intergenerational trauma, loss of cultural practices, fear and mistrust and loss of parenting skills.

We used Picker’s principles of PCC for analysing the results due to their relevance, comprehensiveness and ability to conceptualise various elements of PCC.<sup>37</sup> Our findings support these principles as essential elements in delivering PCC in integrated oral health care<sup>34</sup> (table 2). According to the literature, the patient is a focal point of integrated care.<sup>38 39</sup> Singer *et al* defined integrated patient care and developed a framework based on this definition: ‘patient care that is coordinated across professionals, facilities and support systems; continuous over time and between visits; tailored to the patients’ needs and

preferences; and based on shared responsibility between patient and caregivers for optimising health’.<sup>39</sup> Our findings emphasising the significance of care coordination, continuity of care, shared decision making and the need for patients’ health awareness in PCC are consistent with the results of research studies in other healthcare disciplines in Australia, the USA and various European countries.<sup>38 40–42</sup> This can suggest that the key features of PCC are the same in integrated healthcare irrespective of patients’ profile, their type of health problems and the nature of the healthcare organisation. Similarly, Goodwin *et al* compared seven case studies on successful integrated health and social service programmes for people with complex needs in seven different countries: Australia, Canada, The Netherlands, New Zealand, Sweden, the UK and the USA.<sup>43</sup> All these programmes have incorporated PCC by engaging patients and caregivers, and identify PCC as the basis for implementing integrated care programmes.<sup>43</sup> Accordingly, our results align with a culturally sensitive community-based integrated care Te Whiringa Ora (Care Connections) programme in New Zealand for rural and Indigenous chronic patients in emphasising culturally relevant PCC by engaging patients and family members.<sup>43 44</sup> Our study results are also consistent with the evidence on valuing the role of Indigenous care providers in delivering PCC, including the Te Whiringa Ora programme.<sup>44 45</sup>

Our results demonstrating the value of clinical shared decision making and supportive environment as key features of PCC are coherent with the systematic review and original research conducted by Mills *et al* on PCC in general dental practice and from both care providers’ and patients’ perspectives.<sup>3 46</sup> Moreover, our results are also underpinned by the recommendation of the Department of Health Resources and Services Administration in the USA and other studies on the need for integration of dental and medical care and the importance of the co-location in achieving success in PCC.<sup>17 42</sup>

**Table 2** Interconnections between the Picker’s Principles of PCC<sup>32</sup> and patient-centred integrated oral healthcare as reported by Cree patients

Themes	Picker’s principles
Theme 1. Enhanced accessibility	<ul style="list-style-type: none"> <li>▶ Access to care.</li> <li>▶ Coordination of care.</li> </ul>
Theme 2. Creating supportive environment	<ul style="list-style-type: none"> <li>▶ Respect for patient’s preferences.</li> <li>▶ Emotional support.</li> <li>▶ Physical comfort.</li> </ul>
Theme 3. Building trust through shared decision making	<ul style="list-style-type: none"> <li>▶ Respect for patient’s preferences.</li> <li>▶ Information and education.</li> </ul>
Theme 4. Appreciation of public health programmes	<ul style="list-style-type: none"> <li>▶ Continuity and transition.</li> </ul>
Theme 5. Raising oral health awareness	<ul style="list-style-type: none"> <li>▶ Information and education.</li> <li>▶ Involvement of family and friends.</li> </ul>
Theme 6. Growing cultural humility among healthcare providers	<ul style="list-style-type: none"> <li>▶ Respect for patient’s preferences.</li> </ul>

PCC, patient-centred care.

**Table 3** Interconnections between the dimensions of integrated care demonstrated in Rainbow Model<sup>29 30</sup> and patient-centred integrated oral healthcare as reported by Cree patients

Themes	Key features of each dimension for PCC reported by Cree patients	Domains of integrated care (Rainbow Model of Integrated Care)
Theme 1. Enhanced accessibility	Co-location Financial mechanisms Interprofessional collaboration Professional competencies Inadequate human resources	Organisational Functional Organisational Professional Organisational
Theme 2. Creating supportive environment	Creating supportive environment	Organisational
Theme 3. Building trust through shared decision making	Interaction between professional and client Trust	Clinical Organisational
Theme 4. Appreciation of public health programmes	Continuity of care Public oral health programmes	Clinical System
Theme 5. Raising oral health awareness	Parents as oral health promotion champions	Clinical
Theme 6. Growing cultural humility among healthcare providers	Linking cultures	Normative

The themes from our study support the results of the comprehensive scoping reviews and original research conducted by Harnagea *et al* showing the validity of Rainbow framework in term of domains (table 3) and facilitators of integrated care including culturally relevant services and existence of public oral health programmes.<sup>17 21</sup> Our study also identified barriers to integration similar to those identified by Harnagea *et al* including human resource issues such as lack of trained dental care providers.<sup>17 21</sup>

These results should be interpreted within the consideration of few limitations. First, the study included a small sample of patients visiting the Cree dental clinics. This may have influenced the study results since it did not include the perspectives of those who are not using dental services. Second, few men participated in the study. This could be explained by the fact that women more use dental services than men.<sup>47–50</sup> Finally, though the qualitative approach is not intended for generalising results, the study participants represented a degree of heterogeneity in terms of demographics and oral health status. The focus on a specific setting and organisation in this qualitative study generated rich information that prepares the ground for further research on the integration of oral health into primary healthcare.

## CONCLUSION

Patients at CBHSSJB acknowledged incorporation of PCC in integrating oral health into primary healthcare and expressed the need to further strengthen the clinical and organisational integration. Our results support that fostering PCC can improve integrated healthcare performance.

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**Competing interests** None declared.

**Patient consent for publication** Not required.

**Ethics approval** Ethics approval for this study was obtained from the Institutional Review Board of the Université de Montréal, McGill University and permission from the Research Committee of the Cree Board of Health and Social Services of James Bay.

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