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Exploring Paramedic Care for First Nations in Alberta: A Qualitative Thematic Analysis of Sharing Circle Data

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Abstract

Objectives: The objective of this study was to understand First Nations perspectives on transitions in care involving paramedics, and paramedic perspectives on serving First Nations communities.

Methods: Sharing circles were led by the Alberta First Nations Information Governance Centre (AFNIGC). The data from sharing circles were analyzed using a Western thematic approach and reviewed by Indigenous researchers.

Results: Forty-four participants attended sharing circles. The study team identified three major themes: racism, system barriers, and solutions. First Nations participants described being stereotyped for misuse of paramedic systems and substance use leading to racial discrimination by paramedics and emergency department staff. Discrimination and lack of options to return home following care sometimes led First Nations patients to avoid paramedic care, while lack of alternate care options drove patients to access paramedic care. First Nations providers described facing racism from colleagues and completing additional work to act as cultural mentors to non-First Nations paramedics. Paramedics expressed moral distress when called on to handle issues outside their scope of practice and when they observed discrimination that interfered with patient care. Proposed solutions included First Nations self-determination in paramedic service design, cultural training and education for paramedics, and new paramedicine service models.

Interpretation:

First Nations people face discrimination and systemic barriers when accessing paramedicine. Potential solutions include the integration of paramedics in expanded health care roles that incorporate First Nations perspectives and address local priorities. First Nations should lead in the design of and priority setting for paramedic services in their communities.

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Keywords: Emergency Medical Services, Indigenous health, Health equity, Qualitative, Patient experience, Provider experience, Paramedic, Paramedicine.

Introduction

First Nations members arrive more frequently to emergency departments (EDs) by ambulance than non-First Nations persons in Alberta [1] and face inequities when accessing acute care [2-4] . In an institutional ethnography based in Calgary, Alberta, Corman quotes a paramedic who is intolerant towards "Natives", this racism is described as being learned on the job [5]. The objective of this study was to understand First Nations perspectives on transitions in care involving paramedics, and paramedic perspectives on serving First Nations communities.

Alberta is subject to historical Treaties which were negotiated between First Nations and the Crown as the legal basis for co-existence among Indigenous and settler peoples in Canada [6]. The three main numbered Treaty territories in Alberta are Treaty 6 in central Alberta, Treaty 7 in southern Alberta, and Treaty 8 in northern Alberta (**Figure 1**). Indigenous interpretations of Treaties posit them as the basis for evolving peaceful and life-affirming co-existence [7]. Paramedicine is one field where settlers and First Nations are negotiating relations today. The definition of paramedicine is evolving [8] and paramedicine and paramedic services are undergoing extensive change [9], however, for the purposes of this paper, we will use these terms interchangeably with terms such as Emergency Medical Services (EMS) to refer to the system in which paramedics work [10].

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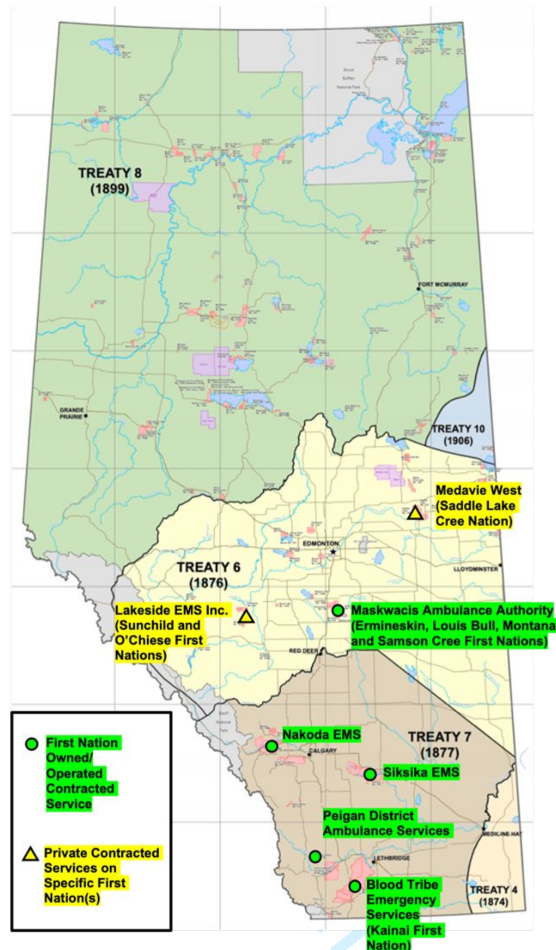

Figure 1. First Nation ambulance operators and Treaty areas, developed from the Government of Alberta First Nations reserves and Metis settlements Map [11]

The provincial health authority, Alberta Health Services (AHS), provides paramedic services in Alberta through direct delivery and contracted ambulance operators. There are five First Nations operated ambulance services and private contracted operators that provide services to specific First Nations (**Figure 1**). All other First Nations are serviced by either AHS EMS direct delivery or contracted services that respond from off-reserve.

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Methods

This is a participatory study [12] guided by the concept of creating ethical space [13]. As a team, we value both Western and Indigenous research approaches and understandings. The Alberta First Nations Information Governance Centre (AFNIGC) ensured adherence to the principles of First Nations Ownership, Control, Access, and Possession (OCAP®) of health data by securing qualitative and survey data on AFNIGC servers, and performing all analyses in partnership with Western research team members [14]. Elders engaged for previous ED-related research provided direction for study conduct in October 2019. The study received ethics approval from the Health Research Ethics Board of Alberta - Community Health Committee (HREBA.CHC-19-0074) and the University of Alberta Health Research Ethics Board (Pro00098744).

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Due to the COVID-19 pandemic, four sharing circles were held virtually in July 2021. Prior to the sessions participants completed online consent forms, or verbal consent by telephone, and demographic questionnaires. When completing demographics, participants self-selected whether they were attending as a community member or as someone involved in paramedic services. Data collection sessions opened with prayer by Elders, discussion of voluntary participation and participant withdrawal procedures, and description of the project objectives. LB and PM facilitated the sharing circles. The researchers were positioned to facilitate dialogue using elements aligned with an Indigenous conversational methodology [15].

To encourage dialogue and to prompt participant discussion a graphic was created by LB (**Figure 2**).

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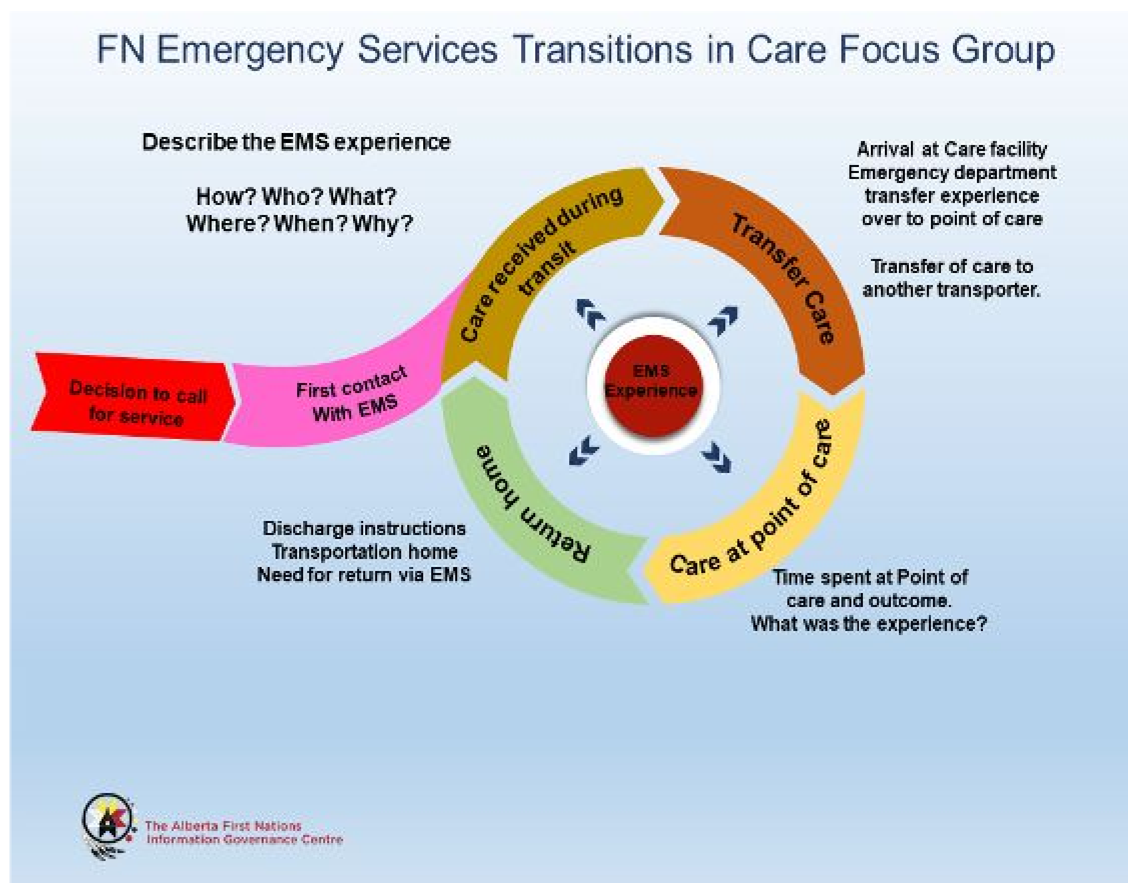

Figure 2. AFNIGC First Nations Emergency Medical Services (EMS) pathway

Recordings were transcribed verbatim and anonymized transcripts were verified by AFNIGC staff for accuracy. The primary analytic team included a settler paramedic researcher (JT), a PhD settler paramedic research leader (IEB), a First Nations researcher and knowledge holder (LB), and a settler PhD sociologist with qualitative methods expertise (PM). Transcripts were coded thematically[16]. Co-authors contributing to design of the study, interpretation of findings and critical revision of the manuscript include a Registered Nurse/Trauma trained ED Nurse and member of the Kainai Nation currently serving as Health Director of the Blackfoot Confedefacy Tribal Council (BH), a settler emergency physician with senior leadership roles (BRH), and a

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Métis Canada Research Chair and specialist physician with expertise in Indigenous Health research (CB).

JT coded transcripts in Nvivo 11 (QSR International, Melbourne, 2015) informed by guidance from LB, and a previous ED study led by PM and LB [2]. Themes were developed in consultation with the research team and revised during manuscript drafting. Results of the analysis were presented to two Elders and a health technician in October 2022, and their feedback is reflected in the interpretation of results.

Results

Forty-four participants attended sharing circles. The attendees included First Nations community members, paramedics, and EMS managers from all Treaty areas (Supplementary Material Table 1. Survey response data). Experiences were predominantly from paramedics and others providing health services on First Nations reserves.

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Table 1. Participant characteristics

Characteristic	Representation: Community Member n= 16 (%)	Representation: Paramedic Services n= 28 (%)	Total n= 44 (%)
Sex[a]			
Female	12 (75.0)	11 (39.3)	23 (52.3)
Male	4 (25.0)	17 (60.7)	21 (47.7)
Age			
20-30	0	2 (7.1)	2 (4.5)
31-40	2 (12.5)	7 (25.0)	9 (20.5)
41-50	1 (6.3)	6 (21.4)	7 (15.9)
51-60	1 (6.3)	9 (32.1)	10 (22.7)
61-70	4 (25.0)	2 (7.1)	6 (13.6)
≥71	4 (25.0)	0	4 (9.1)
No Response	4 (25.0)	2 (7.1)	6 (13.6)
Residence			
Rural[b]	10 (62.5)	6 (21.4)	16 (36.4)
Urban[c]	2 (12.5)	20 (71.4)	22 (50.0)
No Response	4 (25.0)	2 (7.1)	6 (13.6)
On-Reserve	11 (68.8)	0	11 (25.0)
Off-Reserve	1 (6.3)	26 (92.9)	27 (61.4)
No Response	4 (25.0)	2 (7.1)	6 13.6)
Identify as First Nations			
Yes	15 (93.8)	6 (21.4)	21 (47.7)
No	0	22 (78.6)	22 (50.0)
No Response	1 (6.3)	0	1 (2.3)
Profession (Paramedic Services only)			
Paramedic	NA	9 (32.1)	9 (32.1)
Physician		3 (10.7)	3 (10.7)
Manager		6 (21.4)	6 (21.4)
Policy Maker		3 (10.7)	3 (10.7)
Other		4 (14.3)	4 (14.3)
No response		3 (10.7)	3 (10.7)

[a] Additional sex options (e.g., non-binary) were asked but not utilized by respondents.
[b] Defined as located between 50 km and 350 km from the nearest service centre with year-round road access.
[c] Defined as within 50 kilometers of the nearest service centre with year-round road access.

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Three major themes were identified: racism, system barriers, and solutions. A further 20 sub-themes (racism – eight subthemes, system barriers – six subthemes, solutions – six subthemes, and First Nations Paramedic perspectives) were identified (Figure 3).

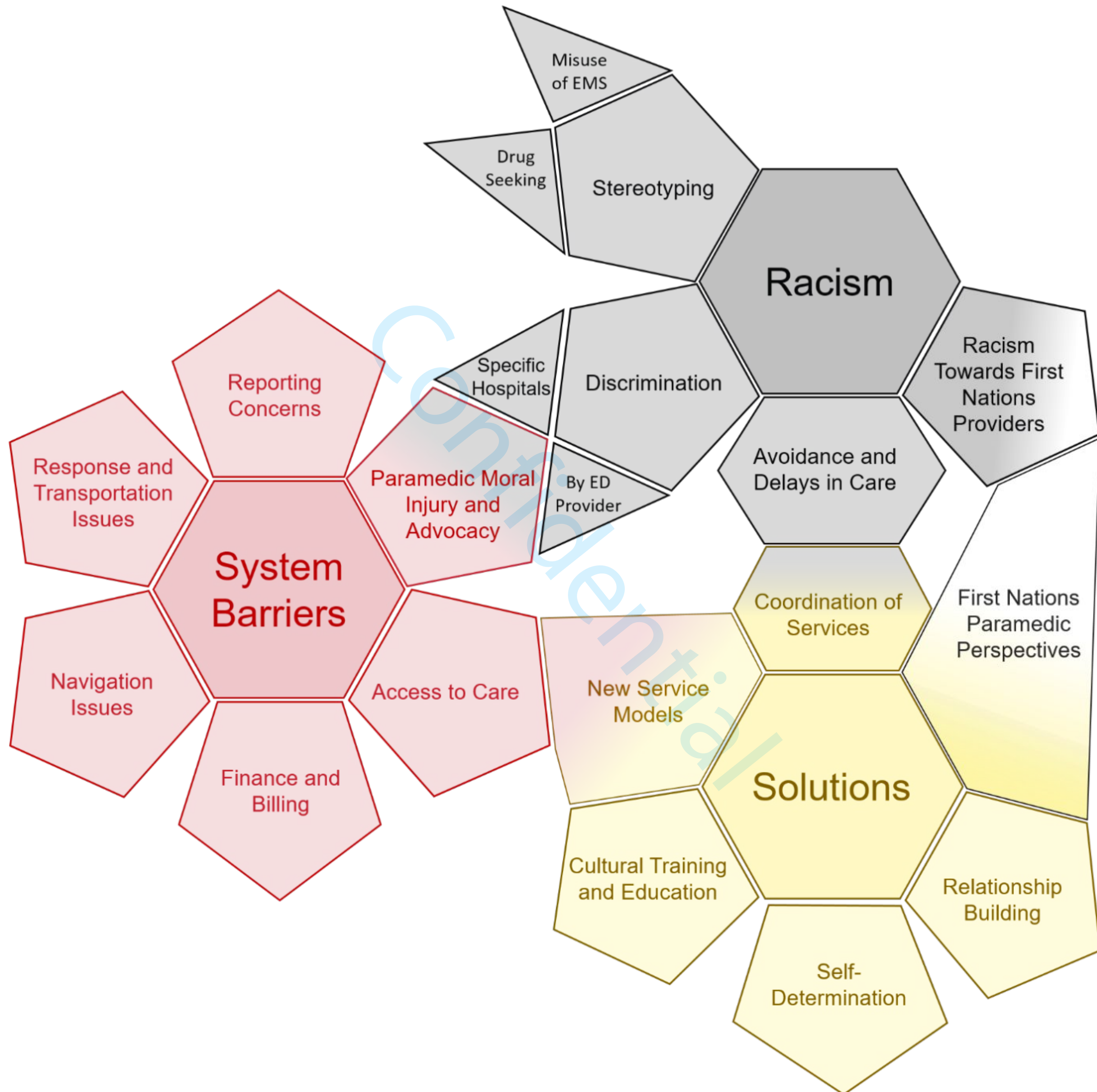

Figure 3. Themes and Subthemes

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Racism

Participants described racism in terms of ideas about and actions toward First Nations members that limited their access to quality paramedic care (Table 2). In particular, racist stereotypes related to perceived misuse of EMS and substance use, race-based discriminatory treatment by paramedics and at EDs, and racism toward First Nations healthcare providers. Descriptions of stereotypes of ED misuse were complicated by participants' efforts to delineate what constitutes true misuse of EMS.

Table 2. Racism example quotations

Racism		
Subthemes	**Description**	**Example Quote**
Stereotyping – Perceived Misuse of EMS	Community members, healthcare leaders, and paramedics identified a stereotype of First Nations community members requesting 9-1-1 for non-health or non-emergent needs, and frequently described this as "misuse" of EMS.	"I think there is also a poor relationship with patients when they're viewed to have misused the system in the view of the paramedic. I don't think that's all that uncommon of an occurrence, unfortunately, and it's not necessarily just the bad practitioners that do that." – P14, Community Paramedic "There are preconceived notions and there are shorter temperaments surrounding First Nations communities because of what some would view as an inappropriate use of an ambulance service, like going to get your prescription refilled. I know that can be frustrating for practitioners old and new. Ultimately, we can't deny you care. We can't tell you, no, you're not allowed to come in the ambulance, and I don't know that we are capable of always making that decision." – P19, Paramedic "It [utilizing paramedic services for access to primary care] is ultimately a

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Racism		
Subthemes	**Description**	**Example Quote**
		misuse of the ambulance service because we are an emergency service. With them calling, they know somebody's going to come and somebody is going to check my blood pressure and somebody's going to talk to me." – P19, Paramedic
Stereotyping – Substance Use	First Nations community members identified instances of paramedics and health professionals holding stereotypes of First Nations patients as substance using, in ways that impact care.	"My children's father had to deal with the racist part of EMS and paramedics. This is a man who doesn't like to take medication whatsoever for anything. He was experiencing quite a bit of pain, enough that we had to phone the ambulance, and he was labeled as drug seeking. The ambulance didn't take him, they left him." – P28, First Nations Community Member "With my parents being elderly, there's those misconceptions of why they're at the health centre or in emergency- its assumed they would just want opioids. No, both my parents don't take opioids and that's the first thing they're offered. "Here. Okay. Here's your prescription. You can go." But it doesn't help the problem and get them to further medical treatment for their diagnosis or really find what's wrong with them. I find it's "push them out fast" kind of thing, but yet if it was anybody else, that next person down the road, they are talked to in a different way, they're treated in a different way. A lot of our people aren't going to look like some of the other society or what they want them to look like. But they're comfortable with themselves. Yet we're looked at as, like, poor bums or whatnot. We have a lot of those issues. When you come into the healthcare centers, the racism, there's no way around that." – P1, First Nations Community Member

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Racism		
Subthemes	**Description**	**Example Quote**
Discrimination	Participants shared instances when First Nations experienced race-based negative treatment from paramedics when receiving care.	"I know sometimes I get treated really good by ambulance and there's other times I don't get treated right because they're not talking to me right. I really feel confused or misunderstood in regard to what it is I'm wanting. Am I just somebody that's giving them money from Indian Affairs, and nobody gives a hoot about it?" – P32, First Nations Community Member "I think, unfortunately, there's overt racism where people, all they see is the assumptions that they came in with. They don't see the patient for who she is or who he is, and they're just filling in the blanks already; they're enforcing a narrative on them and they're acting accordingly. They're not listening. They're not taking in anything from the patient. …. You're not seeing, or you're not listening to what they're telling you they need; you're not being responsive to that. You're replicating that imbalance in the system where they don't have access to care any other way at that moment, other than the 911 system. You're professionally acting in a way that reinforces that barrier, that they're up against." – P14, Community Paramedic
Discrimination at Transition to ED Care	Paramedics said that when First Nations community members are transported to hospital and care is transferred from paramedics to the ED, First Nations patients often face discrimination by ED providers.	"Some of the hospitals in the south, the common comments were, "Oh, they're drunk, how come you're bringing him here? They're just drunk." Well, how do you know they're just drunk.? Did you just spend the last 40 minutes with them in the ambulance, do you know their history? Were they drinking? Do they drink? A lot of the Elders don't drink. Everything is always a preconceived notion in the south." – P4, First Nations EMS Manager

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Racism		
Subthemes	**Description**	**Example Quote**
		"When I brought my patient in, I'm giving a report to the nurse, and I mentioned…alcohol was on board. They just chatter amongst us, not even caring who was around or where the patient is. And it's just "Oh yeah, I told you so," telling the other nurse. Like, why are you doing that in front of me, first of all, and the patient is right there." – P12, First Nations Paramedic "To say that we don't see a different treatment for the Indigenous population would be a lie. Bringing patients into hospitals and not being Indigenous, you would see the different reactions from the healthcare providers in the hospitals. It's very disturbing because I was always taught that everyone's state of emergency is different, and we don't judge it. If [you] feel they need to go into the hospital, you bring them into the hospital." – P4, First Nations EMS Manager
Racism towards First Nations Providers	First Nations providers described experiencing racism and its impacts on them.	"I'm obviously First Nations, but walking down the hallways with EMS crews, doesn't matter which hospital it's at... 95% of the time, the practitioners in the city will continue to see me as something at the bottom of their shoe. It was the same yesterday. It's going to be the same today. It's people's own personal perspectives and racism is still rampant in the healthcare system. That's a struggle day by day." – P15, First Nations Paramedic "I'm even racist to myself almost…You have that ingrained idea that you're probably not really that special anyway, so what the heck? …I'll just grin and bear it and we'll just get along in this society." – P20, First Nations Community Member / Health Professional

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System Barriers

In each sharing circle, community members, paramedics, and health leaders identified lack of primary care on-reserve as a major contributor to EMS utilization (Table 3). Many participants described that lack of resources for afterhours care necessitates EMS and ED utilization for non-emergent medical conditions. Participants also described systems issues that arise from a lack of coordination between First Nations and non-First Nations health and transportation systems, including paramedics having difficulty navigating First Nations territories, paramedic services bills being sent to collection agencies (even where the patient is insured) and lack of effective mechanisms to report discrimination. Some participants also described the way system-driven response times negatively impact care interactions. Among the most striking results were descriptions of patient avoidance of care and paramedics attempting to advocate for patients within the wider health system.

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First Nations community members and paramedics identified that First Nations patients may be reluctant to be transported for care. Avoidance of care was predominantly expressed as being related to negative past experiences in EDs, and system barriers that create difficulties returning home. Patients weigh the severity of their illness against their ability to access transport home following transport to and care in an ED when deciding to seek care.

Paramedics expressed distress associated with their inability to perform duties when patient avoidance of care is founded on previous experiences of discrimination. A paramedic leader described a case of a patient passing away after refusing transport to hospital based on previous discrimination there. Paramedics also spoke about the frustration with the lack of consistent care delivered in EDs and the negative attitudes towards First Nations peoples. A paramedic (P27) described that it is emotionally difficult to be “the gateway between the bad experience you’re

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currently having and another bad experience that you're going to have from people that are expected to help you". Some paramedics described themselves as advocates for patients within the wider health system, sometimes citing their greater familiarity with particular patients.

Table 3. System barriers example quotations

System Barriers		
Subthemes	**Description**	**Example Quote**
Access to Care	Participants described issues in availability of alternate care options as driving EMS use.	"The healthcare system as a whole needs to look at how they're providing that primary care. It is a really rational decision for patients to call for these low acuity complaints because EMS is there 24/7 and the emergency and urgent cares are there 24/7, so they are reaching out to the only care available." – P14, Community Paramedic
Navigation Issues in First Nations Territories	Participants described paramedics having difficulty finding locations on First Nations territories, particular where First Nations lands do not follow road and address formulas that are used elsewhere in Alberta.	"There's been several times where they don't know where they're going because they don't know the reserve. They're not able to find houses; they've pulled into houses and asked, "is this the place we're supposed to be at?" And they'll be way off route. These kinds of things are very concerning to a member on the Nation when it comes to life and death services." – P8, First Nations Community Member
Reporting Concerns	Participants described a lack of effective mechanisms to report discriminatory behaviour, or a lack of such mechanisms.	"A lot of our people won't go through that [complaints] process to make that person accountable or their healthcare team. It doesn't matter what team, like EMS, nurses, doctors. You call a 1-800 number and then you'll get a call back and then again, its back and forth, just too overwhelming." – P1, First Nations Community Member

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System Barriers		
Subthemes	**Description**	**Example Quote**
Response and Transport Issues	Participants described negative experiences related to ambulance response and barriers to transportation home.	"The people [First Nations Community Members] can be frustrated because it does take 45 minutes, two hours, maybe four, if they're coming from another community and people can meet immediately with frustration. "How come it took you guys so long?" And we got to do our best to deescalate that situation." – P19, Paramedic "I do know with Health Canada, they used to pay us to actually do a transport home by ambulance. Then they realized maybe that's too expensive. Hence that's how that medical transportation program kind of got born out of that, which is a great idea. But trouble is a medical transportation tends to go from eight to five type of thing, not so much after hours." – P6, First Nations EMS Manager
Finance and Billing	Participants described difficulties that arise for patients when they are billed for paramedic services that are covered by their Health Canada Non-Insured Health Benefits, and these bills are sometimes sent to collections.	"I'm seeing a lot of clients who have EMS bills. They're getting billed for their transport to the hospital and a lot of these bills are already gone to collections for a nonpayment. There's a big lack of communication possibly with the paramedic team and the client. There's no questioning or indicating, are you First Nation? Do you have a status number? Or anything like that. All they ask for is the Albert Health Care. As a result, we have quite a bit of clients who are getting these invoices for ambulance services without being aware that it's covered by the Non-insured Health Program or Non-insured Health Benefits Program. With that being said they're going unpaid, and then they're being submitted to collections." – P28, First Nations Community Member
Avoidance and Delays in Care Due to Discrimination	Participants described patients declining paramedic care or hospital care due to prior experiences of discrimination.	"I really don't like [censored] Hospital [~60km away] because they're so very difficult with our people. I wanted to go to [censored, ~140km away] or [censored, ~100 km away], but they [the

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System Barriers		
Subthemes	**Description**	**Example Quote**
		paramedics] said no. I said, okay, I want to stay here and die at home." – P33, First Nations Community Member Describing a case of a patient who declined transport a few hours prior to their death from a treatable condition, an EMS manager described that: "The main reason the person expressed that they did not want to be transported was because of the discrimination they had experienced in previous visits to the hospital." – P22, EMS Manager
Avoidance and Delays in Care Due to System Barriers Returning Home	Participants described patients declining hospital transport due to difficulty securing transport home following EMS transport to hospital.	"We find ourselves trying to convince sick individuals to come with us for medical attention and that is the priority. Finding the way home is something that people should not be worried about." – P27, Paramedic "Just that aspect alone [return transport to their community], unfortunately is a deterrent for some people. I know in the past people have tried to walk home. That's a 50 kilometer walk from [censored] back to the Nation, depending on where they live. Some people have tried to do [that] when it's 40 below outside, which is just insane, but yet that's what they're faced with for whatever reason." – P6, First Nations EMS Manager
Paramedic Moral Injury and Advocacy	Paramedics described negative impacts on them personally and professionally when issues of systemic discrimination impacted patient care, and also described efforts they make to advocate for patients.	"Of course, we can't force people to come with us, unless we [have a mental health form on] them, and that's a very narrow window of opportunity. This patient did not come anywhere near the criteria for that to be able to happen. In the end, after about an hour and a half long interaction, the crew signed the patient off and left him in the care of the family and returned back to the station….

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System Barriers		
Subthemes	**Description**	**Example Quote**
		To be called back five hours later to find that the patient had taken their own life. It was a very traumatic experience for our crew. Of course, a lot of blaming themselves for not having transported that person. So, that was a very early introduction to the consequences of the systemic discrimination and racism that First Nations people face." – P22, EMS Manager "We're advocating for our patients relentlessly. What we're talking about earlier and what P12 was talking about earlier we'll go toe to toe with anybody. If we see our patients being mistreated, we'll gladly step in there. But it's still out there; it's every day." – P15, First Nations Paramedic "I vividly recall dropping off a male patient to one of the Northern hospitals, from one of the isolated First Nation communities… I remember relaying that this patient was just quite ill, their presentation, it just, it was either leading towards sepsis or some sort of a GI intestinal issue. [Then in the ED] To have it downplayed and disregarded to, unfortunately, just referencing stereotypes, be it just addictive substances consumption, or just self-neglect… it was really unfortunate being an experienced healthcare provider to have our experience written off when we're trying to do patient advocacy for the receiving facility." – P27, Paramedic "So, when I'm picking a shift up my mindset is, am I going to have a good shift or a negative shift, because of my partner? Are people going to be rude to me at the hospital? I want to go in with good intentions and to be a good advocate

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System Barriers		
Subthemes	**Description**	**Example Quote**
		for my patient, but I want to enjoy my workday." – P12, First Nations Paramedics

Solutions

Participants described potential solutions to these identified issues in paramedic care to First Nations peoples, including practitioner cultural training and education; building relationships and partnerships with First Nations communities and the organizations that serve them; new service models; First Nations self-determination in paramedic service design; and coordination of services (Table 4).

Community members and First Nations EMS operators expressed the importance of First Nations self-determination in health services including EMS. Participants from First Nations communities stated that their priorities for EMS may be distinct from those of the provincial health authority.

One participant powerfully described that appropriate use of EMS is a contested matter.

> *"I think the definition of proper use of an ambulance is constructed within white communities that have access to hospitals quite readily. We need to work on redefining what the appropriate or proper use of ambulance services is, in remote Indigenous communities. Even in not so remote Indigenous communities. There needs to be a change in paradigm or just a redefinition of what exactly that means."*
>
> *-P22, EMS Manager*

When asked for solutions to the challenges of EMS on First Nations, some participants suggested patient navigation, wraparound services in collaboration with other health services, and inclusion

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of Indigenous knowledge holders in healthcare design and delivery as key priorities. Participants also discussed the opportunity for community paramedic programs to address non-emergent conditions as part of a multidisciplinary care team. Solutions for transport home from hospital that included after hours transport were recommended by community members.

Table 4. Solutions example quotations

Solutions		
Subthemes	**Description**	**Example Quote**
First Nations Paramedic Perspectives	First Nations paramedics described their unique ability to serve their communities in ways community members value, and the work they do acting as cultural mentors to non-First Nations paramedics.	"They know they're going to get the best treatment we can give and from being down here, we know the language. We know the culture, we know the people, we know the families, the spirituality and for myself personally, I bring that on every call I go towards, and people are really open and receptive of that." – P15, First Nations Paramedic "The community is very supportive of what we're doing. They're glad to see one of their Nation Members walk through the door." – P15, First Nations Paramedic "More people, maybe in regard to Calgary zone, need more education in regard to.... okay, we have a module out there for Indigenous awareness culture. But I think there needs to be more because you're going to get more experience by reaching out to community members, reaching out to our Elders and being like, what is the right way to interact with First Nations? I get a lot of questions." – P12, First Nations Paramedic
Cultural Training, Paramedic Education	Participants described a need for paramedics to better understand First Nations cultures and made suggestions for paramedic education.	"A recommendation would be to do a different cultural competency training for each territory, for services that are provided in that area. Just to help broaden

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Solutions		
Subthemes	**Description**	**Example Quote**
		the knowledge and support for our people when we have to access healthcare" – P1, First Nations Community Member "We have a module out there for Indigenous awareness culture. But I think there needs to be more because you're going to get more experience by reaching out to community members, reaching out to our Elders and being like, what is the right way to interact with First Nations? I get a lot of questions." – P12, First Nations Paramedic "The majority of the ambulance paramedics are white. No discrimination, but we do have a different way of treating our people, talking to our people, and delivering service to our people, by our people." – P33, First Nations Community Member
First Nations' Self-Determination	Participants described the importance of First Nations determining how their health services are delivered.	"I think it goes back to having our own EMS services within our community because we can have those members that are fluent in our language and even know our members, ..." – P1, First Nations Community Member "We [First Nations Ambulance Operators] try to align ourselves as closely as we can with Alberta Health Services protocols, and guidelines, but at the same time we understand the uniqueness of the First Nation field and working on a First Nation where we have that ability to actually change things, to make it better for our clients, which is the people of our First Nations we serve" – P6, First Nations EMS Manager

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Solutions		
Subthemes	**Description**	**Example Quote**
Coordination of Services	Participants described a need for services to have resources to better coordinate with one another, to better serve First Nations patients and ensure patients receive the services they need.	"We definitely need more wraparound care, more human resources when it does come to some of these collaboration with resources. Making it stronger because it might sound really cool, really good in a perfect world, but how many people still fall through those gaps in finding those resources? Because you might make that call, but at the same time, cell phone service...... There are so many different services. Is that like an eight to four kind of thing too? The hours of services? There needs to be more navigation within those systems, is what I'm trying to say. Which would be beneficial for both healthcare professionals and the member themselves and our client liaisons; something like that would be really good to see." – P1, First Nations Community Member "We've got to do better to make sure that incentives are provided, and that services are at that site so that appropriate services should be delivered. Why should somebody be evacuated via ambulance to get a prescription refill or to get a respiratory issue addressed or a cut addressed or an impetigo addressed? Literally, that these people need to see a physician or have a prescription." – P20, First Nations Community Member / Health Professional
New Service Models	Participants described the possibility of developing new ways of delivering care to improve healthcare for First Nations members.	"I know that's something that's unique for us and that we're working on and we've done some other really unique stuff for traditional healing. Maybe even a whole different healthcare model, it could even be that. Trying to change and move those mountains and thinking nothing's too big. It is lip service from the government. But who's going to start making these moves? If it is us younger people collaborating with our knowledge holders and other people that provide

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Solutions		
Subthemes	**Description**	**Example Quote**
		services, all of those things just streamline the process. It is a heavy, daunting process when you navigate the health system, no doubt about that. It doesn't matter what it is. Our people are vulnerable at that state when they are sick and there's so many different things that come into play when it comes to health care, health determinants, all of those things." – P1, First Nations Community Member "That was one of the things actually, I was trying to work on there, was to look at a community paramedic being paired with me and then we could be working on call after hours to deal with those situations… most of those were not emergency situations where the client had to be evacuated. A lot of those were like a sore throat, prescription refill, probably a chest infection. Some of those, they're not minor, but they need to be addressed." — P20, First Nations Community Member / Health Professional "The new community paramedic program that we're bringing out here on the Nation which is going to help take some of that pressure off of the emerg[ency] side of it so that they can handle some of these acute care issues, and what have you, and again, free up my EMS units, those truly required units, that I may need to actually do those particular types of calls. That some of those things that goes back to running our own type of service." — P6, First Nations EMS Manager "I think [a care model] needs to be very specific to the community and the types of services that are available there. We operate in some communities where there's a robust public health division or

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Solutions		
Subthemes	**Description**	**Example Quote**
		home care service that's offered as well as emergency services. What is an appropriate access to EMS in that community, will be different from a community that has less service. I agree with the comments made that I think it needs to be defined in the context of the community that is relying on the service." — P23, Paramedic Manager
Relationship Building	Participants recommended that relationships be developed among First Nations communities and the organizations serving these communities, to facilitate coordination of services and improve patient care.	"We're [First Nations Ambulance Provider] grateful to work with people in [First Nations Health Service] and have a strong relationship with home care and with the health center and I think that's important to foster and grow that connection, that EMS is part of a continuum of care, and it's not simply a transport to the hospital. Our goal is to do a better job of connecting to other services as well. We want to be that conduit to the health center, to the physicians here in [the Nation]." — P40, Paramedic Manager "I think a lot of these models out there, when it comes to providing services and care to our members- [P9] was saying that being equipped and educated, like what kind of training is being practiced right now? What are the competencies that are lacking within these services? Even if it's starting there, with that kind of work and going out to your closest First Nation territories and working alongside with them and trying to develop something that's unique. So, we can start building that relationship and better the healthcare in those areas…That's where you start to close those gaps and elevate on different resources and supporting those members that are accessing those services to make their experience a lot

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Solutions		
Subthemes	**Description**	**Example Quote**
		better and effective for their health outcomes." ─ P1, First Nations Community Member

Interpretation

Our sharing circles were an opportunity for diverse perspectives on paramedic care of First Nations members in Alberta to be shared between those involved in and affected by the health system. The data collected provides insight into areas of concern and helps guide solutions to address unsafe care provided to First Nations members.

We found specific stereotypes about First Nations members; experiences of discrimination by First Nations patients, paramedics, and providers; patient avoidance of care; and system barriers to care all impact paramedicine in Alberta. We also found paramedic contestation over what constitutes appropriate EMS use, paramedic distress when unable to provide care or ensure quality care by other professionals, and that paramedics view themselves as patient advocates. Participants described potential ways to improve care of First Nations members including First Nations run health services, coordination among services, supporting culturally safe care through education, and new service models such as alternate care destinations, telehealth, and community paramedics.

Previous literature

As previously reported, there are profound occurrences of discrimination and racism when First Nations access ED care in Alberta [2-4]. Our study shows that many issues First Nations members

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encounter in ED also impact paramedic care, including discrimination related to stereotypes about "misuse" of healthcare and substance use [2-4].

Sociological studies of emergency medicine argue that ED care is not simply medical but involves moral judgments of patients [4, 17, 18]. This manuscript illustrates that this dynamic extends to paramedicine. Paramedics in our study were deeply invested in defining their role and describing which types of patients they should be seeing, although not all agreed in their definitions.

Similar to this study, in an institutional ethnography Corman describes paramedics in Calgary, Alberta as classifying ambulance events as "shit" that were not viewed as legitimate or "true" emergencies [19]. Corman presents that paramedics construct what they define as a "good" or "bad" call based on a variety of factors, including social categories. Likewise, Seim has described dynamics in his ethnographic work in urban California [20] where paramedics prefer "legit" over "bullshit" cases. The "legit" cases are defined by a need for relatively urgent medical intervention (e.g., from serious vehicular trauma, diabetic episodes) while the "bullshit" calls are related to social ills (e.g., lack of access to primary care, needs for shelter) which require little care and potentially lead to unnecessary transport. As in our study, where paramedics often understood that patients called for EMS because no other options were available, Seim describes paramedics as sometimes sympathizing with patients while defining many ambulance calls as "bullshit". He argues that paramedicine is more than a job for many who do it, and instead a "vocation" or a "calling" involving socially valuable work which paramedics often define their core self-identities through. Similar investment in paramedicine is found in our study when paramedics describe their role in "advocacy" for patients and the distress they experience when they are unable to provide or ensure needed care.

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Implications

Our findings describe the current state of paramedicine and suggest that paramedic judgments of and behaviour towards First Nations community members result in patient avoidance of care and contributes to negative health outcomes (Figure 3). In turn, paramedics themselves are negatively impacted by witnessing the discrimination First Nations patients encounter. Definitions of appropriate and inappropriate emergency care use are at the core of conflicts observed in our study.

To ensure that all patients are safe when accessing paramedic services, organizations must focus on redefining appropriate emergency care use to be responsive to patient needs in the context of healthcare systems that do not serve all patients equitably. As one of our participants eloquently noted, the definition of appropriate access to EMS has been "constructed within white communities" and for patients with ready access to comprehensive healthcare services. Redefining how paramedics view their role could improve care interactions and promote referrals to necessary services including primary care.

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Alongside redefining paramedic definitions of their role, paramedic services must combat racism towards First Nations by implementing cultural safety [21] training that attends to the way care systems have been defined to privilege white communities and patients. This training should be led and evaluated by First Nations patients and community members. Moreover, care locations to which paramedics transition patients (primarily EDs) must become culturally safe for First Nations patients in order for paramedics to fulfill their duty of care. Simultaneously, secure, sustained, and equitable funding for First Nations primary care and other services will be essential to reducing mismatches between patient need and paramedics' professional sense of themselves. A more robust care system can support the changes to paramedic definitions of their

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professional role, and greater integration of paramedicine with the health system, if supported by investment in paramedic training, community partnerships, and program development.

The changes we recommend reflect the evolving practice of many paramedic services that incorporate paramedic care as part of an interdisciplinary team [9, 22-24]. Perhaps more importantly, First Nations self-determination in paramedicine aligns with the United Nations Declaration on the Rights of Indigenous Peoples [25]. First Nations service providers can be key leaders in health system transformation, if they are supported and compensated to do this work, and if the paramedic profession is made safe for them. It is reasonable to regard the solutions identified in this study (Figure 3) as the basis of a model for serving First Nations communities.

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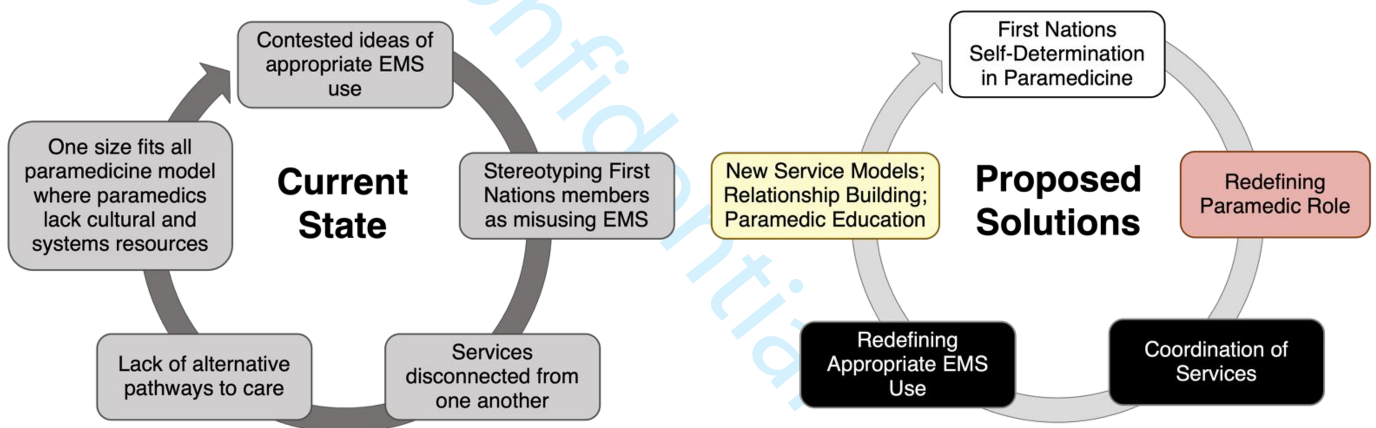

Figure 4. Current state and proposed solutions to barriers First Nations encounter when accessing EMS in Alberta

In our meeting to discuss analysis results with Elders, they reflected that the project is valuable and that they believed our results would drive positive change. They expressed a desire for community members to know that work is ongoing to improve paramedicine for First Nations members in Alberta. They also emphasized the importance of First Nations values and principles for local paramedicine services (such as the Cree guiding principle for health of Kisêwâtisowin –

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'absolute compassion' [26]), and the fact that First Nations members have a Treaty Right to Health as expressed within Treaty 6. Elders noted that we should think of future generations, and that when we do harm our children will have to pay the price.

Strengths and Limitations

Issues identified in our study were recognized by community members, but also, and for the first time reported, by paramedics and EMS leaders. Limitations include that First Nations participants who do not have experience working in the health system are underrepresented. First Nations persons without healthcare backgrounds may have perspectives and experiences different than those presented in this study. Youth are underrepresented in our sample, with the majority of participants over 40 years of age.

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Conclusion

First Nations peoples face discrimination and systemic barriers when accessing paramedicine. The integration of paramedics in expanded health care roles that incorporate First Nations perspectives and address local priorities and principles has the potential to alleviate many of the negative experiences that First Nations members face when accessing health services. First Nations should lead in the design of and priority setting for paramedic services in their communities.

Contributions

PM, IB, LB, BRH, CB and BH designed the project. JT conducted analysis and drafted the article. PM, LB, IB and JT conducted qualitative data collection. PM provided qualitative methods direction, provided substantive revisions to early drafts, contributed sociological theory and led revisions to the theme structure. PM, IB, LB, BRH, CB, and BH contributed to analysis or interpretation of data.

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Authors' Information

JT is a paramedic researcher who has over 16 years of experience as a paramedic, has worked in Indigenous health service delivery and policy for over 13 years, and works with Alberta Health Services Health Evidence and Innovation and as a community paramedic for Siksika Health Services Aisokinaipiyokiiks. LB, RN, BScN, is a Cree Traditional Practitioner/Knowledge Keeper and Executive Director of Alberta First Nations Information Governance Center with 40 years of experience with Indigenous health program development, delivery, practice and policy and research on community, national and international levels. IEB is a PhD paramedic researcher with Alberta Health Services Emergency Medical Services and Adjunct Professor in Community Health Sciences at the University of Calgary with over 30 years of paramedic system experience in various roles. CB is a Métis health services researcher, rheumatologist, and expert in Indigenous health. She is Professor of Medicine and Community Health Sciences at the University of Calgary. LM was Research Coordinator in the Department of Emergency Medicine at the time this manuscript was written. BRH is Professor of Emergency Medicine, University of Alberta, and Senior Medical Director of the AHS Emergency Strategic Clinical Network. PM is a PhD Sociologist, Assistant Scientific Director of the Alberta Health Services Emergency Strategic Clinical Network and Adjunct Associate Professor in the University of Alberta, Department of Emergency Medicine. BH RN is a member of Kainai Nation, Blackfoot Knowledge Holder with ancestral transferred rights; founder and former Executive Director of AFNIGC, inaugural board member of national FNIGC and former Chair; co-author Chapter 9: Research Involving the First Nations, Inuit and Métis Peoples of Canada Tri-Council Policy Statement (2018); former board member of Conjoint Health Research Ethics Board University of Calgary; currently a member of the CIHR College of Reviewers, 33 years working in health, research and First Nations information governance and data sovereignty.

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Supplementary Material

Supplementary Table 1. First Nations community member survey data

Survey Question	**n= 12 (%)**
Do you have experience using EMS yourself?	
Yes	11 (91.7)
No	1 (8.3)
Do you have experience using EMS for a child or dependent?	
Yes	6 (50.0)
No	6 (50.0)
Do you have experience accompanying others using EMS?	
Yes	7 (58.3)
No	5 (41.7)
How many times have you used EMS in the last year (for yourself or others)?	
0	3 (25.0)
1	4 (33.3)
2-5	4 (33.3)
>5	1 (8.3)
Average	2.25

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Supplementary Table 2. Paramedic services survey data

Survey Question	**n= 28 (%)**
Do you currently provide emergency care to First Nations members or **communities in Alberta?**	
Yes, solely	5 (17.9)
Yes, more than 50% of my job	4 (14.3)
Yes, less than 50% of my job	8 (28.6)
No	9 (32.1)
No Response	2 (7.1)
Length of service to First Nations communities:	
1-5 years	2 (7.1)
6-10 years	3 (10.7)
11-15 years	2 (7.1)
16-20 years	4 (14.3)
>20 years	6 (21.4)
No Response	10 (35.7)
What is your profession?	
Advanced Care Paramedic	7 (28.6)
Primary Care Paramedic	1 (7.1)
Paramedic (Unspecified)	1 (28.6)
Manager	6 (10.7)
Physician	3 (3.6)
Policymaker	3 (7.1)
Other	1 (7.1)
Primary Role:	
Clinician	8 (28.6)
Policymaker	2 (7.1)
Health System Leader	8 (28.6)
Community Program Manager	3 (10.7)
Researcher	1 (3.6)
Public Health Practitioner	2 (7.1)
Other	2 (7.1)
No Response	**2 (7.1)**

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Supplementary Table 3. Paramedic Likert survey data

	Response n= 26 (%)					
Statement	**Do Not Know**	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
I have a good understanding of the different perspectives of EMS services.	-	-	-	-	13 (50.0)	13 (50.0)
I have a good understanding of EMS transitions in care for First Nations.	-	-	3 (11.5)	4 (15.4)	13 (50.0)	6 (23.1)
I have a good understanding of the steps for building rapport with community members and EMS services.	-	-	2 (7.7)	8 (30.8)	11 (42.3)	5 (19.2)
I have a good knowledge of the protocols for knowledge exchange with First Nations.	-	1 (3.8)	5 (19.2)	8 (30.8)	6 (23.1)	6 (23.1)
I understand what data is available from the province on EMS use in First Nations communities.	1 (7.7)	2 (7.7)	7 (26.9)	5 (19.2)	6 (23.1)	5 (19.2)

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Standards for Reporting Qualitative Research (SRQR)*

http://www.equator-network.org/reporting-guidelines/srqr/

Page/line no(s).

Title and abstract

Title - Concise description of the nature and topic of the study Identifying the study as qualitative or indicating the approach (e.g., ethnography, grounded theory) or data collection methods (e.g., interview, focus group) is recommended	1
Abstract - Summary of key elements of the study using the abstract format of the intended publication; typically includes background, purpose, methods, results, and conclusions	2

Introduction

Problem formulation - Description and significance of the problem/phenomenon studied; review of relevant theory and empirical work; problem statement	3
Purpose or research question - Purpose of the study and specific objectives or questions	3

Methods

Qualitative approach and research paradigm - Qualitative approach (e.g., ethnography, grounded theory, case study, phenomenology, narrative research) and guiding theory if appropriate; identifying the research paradigm (e.g., postpositivist, constructivist/ interpretivist) is also recommended; rationale**	5
Researcher characteristics and reflexivity - Researchers' characteristics that may influence the research, including personal attributes, qualifications/experience, relationship with participants, assumptions, and/or presuppositions; potential or actual interaction between researchers' characteristics and the research questions, approach, methods, results, and/or transferability	6
Context - Setting/site and salient contextual factors; rationale**	3-4
Sampling strategy - How and why research participants, documents, or events were selected; criteria for deciding when no further sampling was necessary (e.g., sampling saturation); rationale**	5
Ethical issues pertaining to human subjects - Documentation of approval by an appropriate ethics review board and participant consent, or explanation for lack thereof; other confidentiality and data security issues	5
Data collection methods - Types of data collected; details of data collection procedures including (as appropriate) start and stop dates of data collection and analysis, iterative process, triangulation of sources/methods, and modification of procedures in response to evolving study findings; rationale**	6-7

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Data collection instruments and technologies - Description of instruments (e.g., interview guides, questionnaires) and devices (e.g., audio recorders) used for data collection; if/how the instrument(s) changed over the course of the study	7
Units of study - Number and relevant characteristics of participants, documents, or events included in the study; level of participation (could be reported in results)	7-8
Data processing - Methods for processing data prior to and during analysis, including transcription, data entry, data management and security, verification of data integrity, data coding, and anonymization/de-identification of excerpts	5-7
Data analysis - Process by which inferences, themes, etc., were identified and developed, including the researchers involved in data analysis; usually references a specific paradigm or approach; rationale**	6-9
Techniques to enhance trustworthiness - Techniques to enhance trustworthiness and credibility of data analysis (e.g., member checking, audit trail, triangulation); rationale**	

Results/findings

Synthesis and interpretation - Main findings (e.g., interpretations, inferences, and themes); might include development of a theory or model, or integration with prior research or theory	6-24
Links to empirical data - Evidence (e.g., quotes, field notes, text excerpts, photographs) to substantiate analytic findings	Tables1-4

Discussion

Integration with prior work, implications, transferability, and contribution(s) to the field - Short summary of main findings; explanation of how findings and conclusions connect to, support, elaborate on, or challenge conclusions of earlier scholarship; discussion of scope of application/generalizability; identification of unique contribution(s) to scholarship in a discipline or field	25-28
Limitations - Trustworthiness and limitations of findings	29

Other

Conflicts of interest - Potential sources of influence or perceived influence on study conduct and conclusions; how these were managed	1
Funding - Sources of funding and other support; role of funders in data collection, interpretation, and reporting	1

*The authors created the SRQR by searching the literature to identify guidelines, reporting standards, and critical appraisal criteria for qualitative research; reviewing the reference lists of retrieved sources; and contacting experts to gain feedback. The SRQR aims to improve the transparency of all aspects of qualitative research by providing clear standards for reporting qualitative research.

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**The rationale should briefly discuss the justification for choosing that theory, approach, method, or technique rather than other options available, the assumptions and limitations implicit in those choices, and how those choices influence study conclusions and transferability. As appropriate, the rationale for several items might be discussed together.

Reference:

O'Brien BC, Harris IB, Beckman TJ, Reed DA, Cook DA. **Standards for reporting qualitative research: a synthesis of recommendations.** *Academic Medicine*, Vol. 89, No. 9 / Sept 2014 DOI: 10.1097/ACM.0000000000000388

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Section and topic	**Item**	**Reported on page No**
1: Aim	Report the aim of PPI in the study	5
2: Methods	Provide a clear description of the methods used for PPI in the study	5, 7
3: Study results	Outcomes—Report the results of PPI in the study, including both positive and negative outcomes	NA
4: Discussion and conclusions	Outcomes—Comment on the extent to which PPI influenced the study overall. Describe positive and negative effects	28-29
5: Reflections/critical perspective	Comment critically on the study, reflecting on the things that went well and those that did not, so others can learn from this experience	29

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