Removing Barriers to Wound Care, Applying Appreciative Inquiry to Improve the Management of Wounds within the Matawa First Nations: The Inquiry Phase

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**Abstract**

The study reports findings of the inquiry phase of appreciative inquiry to understand the problem space of remote wound care within the First Nations communities. The appreciative inquiry method was employed in the study after a partnership with the Matawa First Nations focusing on providers’ strengths and ability to give care. When discussing strategies that helped augment the level of care, providers also discussed the barriers to care and why they had employed specific strategies to overcome them. Appreciative inquiry has four phases: inquire, imagine, innovate, and implement. Healthcare providers were interviewed during the inquiry phase, focusing on understanding the current state regarding wounds, provider strengths and what worked well. Findings: Seven dominant themes emerged from the research: building trust with the community, cultural unpreparedness, empowerment, patient connection and lived experiences, communication with staff and community members, discontinuity of care, and limited resources. A strength-based, positive-interview approach uncovered strategies for treating wounds in remote communities: empowering patients, giving them an active role in their care, and making them feel heard were all adopted by healthcare providers. Barriers leading to difficulty in providing care included disconnected healthcare, limited resources, insufficient infrastructure, a lack of clean water, limited cultural understanding, and environmental challenges. Understanding the barriers to care requires a recognition of the social and historical effects of colonialism on these communities. There are also complex systemic issues that aggregate and worsen how care is provided within these communities. It is important to understand and acknowledge these fundamental issues while simultaneously helping augment the strategies that have been shown to improve wound care in these communities.

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Introduction
Complex wound care remains one of the biggest challenges in the First Nations communities in Ontario. Many First Nations communities within Canada continue to struggle to receive basic wound care due to inadequate infrastructure, a lack of continuity of care, and a shortage of healthcare personnel [1][2]. Thus, access to resources can be scarce, and patients are often seen in the emergency room with wounds that are already complicated to treat, leading to amputations [3]. When investigating these issues, it is important to acknowledge the historical effects of colonial practices and the intergenerational trauma felt within the First Nations communities, which have influenced and affected their interactions and engagement with various health services [4]. The effects of these traumas have caused multigenerational effects within communities and perpetuate health inequity as well as racism and gender discrimination. This can be seen in the lack of healthcare resources available for the early identification of wound risks within communities, the lack of awareness relating to care, and the lack of continuous care [5][6].

For example, a recent study of First Nations in Ontario suggests that early identification and access to wound-care services could prevent amputations, especially since the First Nations’ amputation rates in northwest Ontario are six times higher than in the rest of the province [7]. Furthermore, higher susceptibility to diabetes and the prevalence of community-associated multiple-antibiotic-resistant wound infection in First Nations communities lead to higher incidence and rates of complex wounds [8] [9][10]. Thus, there is a need to examine the health experiences of the First Nation individuals with wounds and their healthcare providers. In addition, there is a need to identify the processes and practices needed to improve wound management.

Thunder Bay is a catchment area for several First Nations communities, some of which lack adequate infrastructure and endure shortages of healthcare personnel [11][12]. In many of these communities, the main primary care providers are nurses who often have geographically isolated clinical and management supports and limited resources [1].

There is increasing recognition that culturally-based programs led by community healthcare providers are vital to overcoming gaps and challenges related to health [13]. Community healthcare providers are crucial because they are in an advantageous position to identify and help meet the needs in a culturally sensitive manner due to their relationship with community members and knowledge of the local infrastructure [14][15]. This led to partnering with the Matawa First Nations communities in northwest Ontario. The Matawa First Nations Health Care team provide support and care to the nine-member Ojibway and Cree First Nations and one First Nation in the Robinson-Huron Treaty area, mostly located in northwest Ontario [16]. This niche remote wound-care space includes stakeholders like nurse practitioners, foot-care nurses, diabetes educators, physicians, and patients. A challenge to care is the limited literature with regard to wound care within the First Nations communities. Furthermore, mostly Western research methods have been published.

This paper reports the findings of the inquiry phase of what will be a four-phase appreciative inquiry study. Partnering with the Matawa First Nations community helped the researchers to understand and describe how the health team provides care to its patients with wounds in the communities. This involved learning and appreciating the cultural and traditional healthcare practices and processes regarding wound care.
Methodology

Study Design

This is an exploratory, narrative qualitative research design. Such a design allowed us to explore a comprehensive range of issues in relation to a specific group of communities [17]. The approach allowed us to create relationships and build trust with the community healthcare providers and better understand the needs of the community.

A problem-focused approach has had little success in improving healthcare and empowering patients and healthcare providers in the First Nations communities [18]. Thus, the appreciative inquiry method was employed in the research study after forming a partnership with the Matawa First Nations. The study concentrated on the providers’ strengths and ability to give care rather than on their weaknesses [19] [20].

Appreciative inquiry has four phases: (1) inquire, (2) imagine, (3) innovate, and (4) implement. The inquiry phase is the first and decisive stage of appreciative inquiry. It involves the collection of useful data that will eventually be used to co-create and implement interventions to alleviate wound-care barriers more effectively. The inquiry phase included interviews with healthcare workers from the Matawa First Nations communities [21][22][23]. The objective of this phase was to understand the current state of wound care within the communities and describe how the healthcare team provides care.

Questions relating to wound-care processes were asked. The focus of the interviews was on provider strengths and what worked well within the communities.

Study Setting: Population and Sample

Study participants included healthcare providers who had worked within the Matawa First Nations communities in northwest Ontario. Providers included nurses, specialists, nursing station staff, and allied health practitioners. These individuals were able to offer a wide variety of perspectives related to care for patients in the community.

Recruitment of participants was done using snowball sampling, with a combination of emails and phone calls to contacts within the communities and their health stations. The staff were emailed or called after expressing initial interest in the study, and consent forms were sent to participants to read before the interview.

Interviews were conducted either over the phone or using Zoom video conference software, which allowed for secure interviews to be held virtually. Forty-five-minute interviews were conducted. Participants were asked to reflect upon wound care within the Matawa First Nations. The questions asked participants about their roles within communities, their overall experience and expertise with wound care, the key strategies they used to improve wound care in the communities, and the difficulties they had experienced when providing care.

Data Collection and Analysis

All conversations were audio-recorded and transcribed verbatim. Coding was done through Excel. The interviews were coded by highlighting and making notes throughout the transcripts. Coding involved the identification of key concepts and important phrases within the interview transcripts; the transcript of the data was marked, and codes were assigned and noted. We adapted Hsieh’s approach to conventional content analysis, which is used with a study design whose aim is to describe and understand a phenomenon, in this case, the care for patients with
wounds in the Matawa First Nations communities, wherein the existing literature is limited [24].

Analysis was done to identify key processes in providing wound care that subsequent interviews could further explore and to identify and elaborate upon potential targets for recurring themes that could be used for future discussions.

After completing interviews and coding, data were reviewed. Meanings, feelings, associations, and comments throughout the transcript were deciphered. Key themes were identified, and a codebook was developed to keep track of the codes assigned to the transcripts. The researchers then focused on finding meaning and linking provider testimonies with the effect of colonial practices on the way of life for First Nations communities.

**Ethical Considerations**

The study was approved by the Institutional Review Boards of TBRHSC and the University of Toronto. Appropriate permission was obtained. Written informed consent was obtained from all participants. Participants were assured of their anonymity and confidentiality and were told that they could voluntarily withdraw at any point in the study. A full participant information sheet was initially given to each potential participant, who then signed a consent form after deciding to participate in the study.

**Results**

Recurring important themes were noted after analyzing the interviews. The study included a total of seven participants with various healthcare roles. They varied in the number of months or years they had worked with the communities. Most of their visits to these communities ranged from one to four weeks.

The first theme identified was building a sense of trust with the community members. All participants indicated that they had been introduced to the role by colleagues who had previously worked in the communities. All were visiting healthcare providers who worked within the Matawa communities and other rural and urban communities. Even the nursing station staff member interviewed was not from the immediate community.

“They introduced me to the role and some really interesting people”

These prior connections helped the newer providers build a sense of trust with the community members and patients they were treating. Having been introduced by a trusted healthcare provider was seen and described as advantageous.

The second major theme identified was uncertainty and cultural unpreparedness. Some providers expressed fears and insecurities regarding how to provide proper advice and care to patients. Unpreparedness was often expressed, and a lack of understanding of First Nations culture was also noted. The providers interviewed wanted to be respectful, but the fear of causing offense based on living circumstances and available resources affected the type of care that was provided to the patient.

“The grocery store only had canned foods. . . . I knew I should make a recommendation regarding their diet to help with their diabetic foot ulcers . . . but I felt unprepared to suggest things and offend patients.”
The third theme identified was empowerment. The healthcare providers discussed wanting to help improve the wound-care outcomes of their patients. The providers reported changing some of their care strategies to help patients. This meant learning to empower patients and making them feel heard was vital in their care journey. Providers told us that, in their experience, this strategy helped with follow-ups and future treatments.

“Patients need to understand their treatment plan and the reason why they need to come back.”
“Booking follow-ups at their convenience is very useful.”

The fourth theme identified was the connection between patients and their lived experiences. Providers expressed the importance of talking and connecting with the patients and understanding where they were coming from. This meant understanding and keeping an open mind about their living and social situation. In understanding the culture and values, the patients felt respected and heard. Many expressed that, by explaining and allowing patients to take an active role in their care, they would be more likely to adhere to wound care treatments and follow up for dressing changes.

“People are willing to learn and participate in wound care. They just need to trust and understand.”
“Patients need to be involved in their care.”
“Patients prefer wound management in their communities. They feel more whole and at home. They feel more secure.”

The fifth theme we identified was proper communication with staff and community members, which was emphasized as being vital to maintaining patient care.

“We use radios, Facebook, fliers, etc. to inform everyone when the healthcare provider is coming to the community.”

“Communicating with the nurses so that all providers are on the same plan.”

The sixth theme identified was discontinuity of care. Temporary visits and lack of care continuity is a key issue in these communities. All providers interviewed gave wound care to patients, but the extent of their knowledge, their time within the communities, and their experience differed. For example, some providers we spoke with frequently made home visits, while some only provided care within the nursing stations. Furthermore, we identified that there were times when there was no nurse in the community when there was a total change in staffing.

“I am only in the community for a few weeks.”

“Patients get very frustrated with care, as the majority was provided outside of their community.”

The seventh recurring theme identified was limited resources. These remote and fly-in First Nations communities expressed difficulties in getting resources, such as wound-care dressings and aid kits, to the patients. In addition, larger systemic issues, such as funding for treatments and insurance coverage, were discussed. Often during interviews, the “inconvenience of going
through non-insured health benefits” was expressed. Many providers felt that this prolonged the care process, and the delays meant that patient conditions and wounds often worsened.

“We make do with what we have.”
“Inventory list not up to date but almost always checked.”

Other themes were:

- Environment concerns: “There was a boiling water advisory, so we needed to bring tools and water cleaning tablets.”
- Lack of patient education: “Patient kept putting tissue paper as a home remedy, and when they finally went to see someone the wound had worsened and needed to be amputated.”

The themes identified regarding patient empowerment, building a sense of trust, proper communication, and connecting to patients are strategies that the providers employed and benefited from within the communities. They allowed wound care to be provided to patients and, in many instances, improved patient outcomes. The themes like uncertainty, a lack of cultural preparedness, discontinuity of care, and lack of resources are barriers that the providers said impeded their ability to provide wound care.

Discussion
This paper focused on the inquiry phase of appreciative inquiry. A strengths-based, positive interview approach uncovered numerous barriers to wound management.

Throughout the interview analysis, issues like disconnected healthcare, a lack of wound-care resources, a lack of infrastructure and clean water, a lack of cultural understanding, and environmental challenges made it difficult to provide care within the Matawa First Nations communities. This illustrates the complexity of providing access to healthcare for the First Nations communities.

This research identified several effective strategies in providing wound care through the interview phase. When patients and family members are empowered and more involved in their wound management, when the providers listen and understand patient stories and perspectives and circumstances, improved care is described. This was noted to lead to good compliance with wound-care treatment instructions and follow-ups. Healthcare providers indicated that early radio and social media announcements might also improve follow-ups and wound management by directly reaching patients who lack immediate access to a phone or the internet. Conversely, community members can also have a positive, enabling role in care-seeking behaviors, providing social support to patients.

In these interviews, reporting on what works and does not work in providing wound care is just a small part of the story. The strengths and barriers we uncovered regarding wound care are essential in planning the next steps to improving the prompt and effective management of wounds. Understanding and acknowledging the complexity of the issues at play is imperative.
Next Steps
The second phase is to imagine an improved wound-care process, including a team brainstorming session discussing the findings of the first phase through a focus group/sharing circle hybrid.

Conclusion
This project aimed to understand the barriers to wound care within the Matawa First Nations communities. We uncovered strategies for treating wounds in the remote Matawa First Nations communities by conducting interviews. Strategies like empowering patients, allowing them to have an active role in their wound care, and providing them with the space to feel heard were all strategies healthcare providers adopted within the communities. We did, however, find many barriers to care, such as disconnected healthcare, a lack of wound-care resources, a lack of infrastructure and clean water, a lack of cultural understanding, and environmental challenges that made it difficult to provide care within the Matawa First Nations communities.

In listening to and understanding why these barriers exist, we found that it is important to understand the social and historical effects of colonialism on these communities. Therefore, it is important to understand and acknowledge these fundamental issues while simultaneously helping augment the strategies that have been shown to help improve wound care in the Matawa First Nations communities.

Overall, in attempting to develop a wound-care intervention to help healthcare providers enhance these communities’ strengths, communication, cooperation, and understanding the culture will lead to better patient care.

Declarations

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