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Perspectives on improving wound care for Aboriginal health workers in rural and remote communities in Queensland, Australia

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Abstract

Background The care of wounds is an ongoing issue for Indigenous people worldwide, yet culturally safe Indigenous wound care training programs for rural and remote Australian Aboriginal Health Workers are largely unavailable. The higher prevalence of chronic disease, lower socioeconomic status and poorer access to services experienced by Aboriginal and Torres Strait Islanders compared to non-Indigenous people, leads to a greater incidence of chronic wounds in Aboriginal and Torres Strait Islander people. Identifying the barriers and enablers for delivering wound care will establish areas of need for facilitating the development of a specific wound care program for Aboriginal Health Workers and Aboriginal Health Practitioners. This paper reports the first phase of a larger project directly aligned to the Indigenous Australians' Health Program's objective of supporting the delivery and access to high quality, culturally appropriate health care and services to Aboriginal and Torres Strait Islander Australians. This study aimed to examine experiences of Aboriginal Health Workers, Aboriginal Health Practitioners, and nurses for managing chronic wounds within rural and remote Aboriginal Medical Services in Queensland, Australia.

Methods Yarning facilitated by two Aboriginal researchers among Aboriginal Health Workers, Aboriginal Health Practitioners, and nurses currently employed within four Aboriginal Medical Services located in rural and remote areas of Queensland, Australia.

Results Two themes were developed through rigorous data analysis of yarning information and responses: participants' experiences of managing wounds and barriers and enablers to effective wound care.

Conclusions This study contributes an insight into the experiences of Aboriginal Health Workers on the current barriers and enablers to timely treatment of chronic wounds. Results from this study indicate a significant barrier to obtaining timely and effective wound care in regional and remote settings is access to an appropriately skilled, culturally competent, and resourced health work force. A lack of education and professional development for Aboriginal Health Workers can compromise their ability to maximise patient outcomes and delay wound healing.

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Findings have informed the development of an evidence based, culturally competent open access chronic wound care education program for Aboriginal Health Workers.

Keywords Aboriginal Health Workers, Yarning circles, Wound care, Aboriginal, Torres Strait Islander, Indigenous, Closing the gap, Aboriginal Health Practitioner

Background

The use of 'Indigenous People' and 'Aboriginal and Torres Strait Islander people' in this paper positions the most appropriate language. For example, references to Indigenous and Aboriginal and Torres Strait Islander people aligns to the literature cited or quoted and to ensure consistency throughout. Aboriginal and Torres Strait Islander people describes both groups, in particular research participants from each region.

Research documenting the health of Australia's Indigenous people has focused on the significant life expectancy gap, inequality, the ongoing, adverse effects of colonisation, intergenerational trauma, and high rates of chronic disease that continues to impact the lives of Indigenous people [1]. In 2021, the overall avoidable mortality rate and the rate of potentially preventable hospitalisations for Aboriginal and Torres Strait Islander people was over three times that for non-Indigenous Australians [2]. The disproportionally higher prevalence, morbidity and mortality of chronic disease, lower socioeconomic status and poorer access to services means that Aboriginal and Torres Strait Islander peoples are disproportionately affected by chronic wounds [3] and health outcomes for Aboriginal Australians affected by chronic wounds are significantly lower than for non-Indigenous Australians [2, 4, 5]. Acute wounds are defined as wounds that heal through an orderly and timely process with restoration of anatomical integrity [6]. Chronic wounds are defined as wounds that have failed to reach functional and anatomic integrity and heal in a timely manner, with some authors defining a healing time of longer than one to three months to define chronicity [5, 7, 8]. Regardless of terminology differences, acute and chronic wounds can constitute significant treatment challenges for Aboriginal and Torres Strait Islander communities within rural and remote settings, reduce the quality of life for afflicted individuals, and impose a considerable economic burden on the patient and healthcare providers [9].

Wounds Australia [10] indicate that 420, 000 Australians suffer from a chronic wound each year. Most chronic wounds are managed in the community, and poor management of chronic wounds results in an increased risk of infection, prolonged healing times, long-term complications, amputations, and hospitalisations [3]. The most prevalent chronic wounds are those arising from venous leg ulcers and diabetic foot disease [10]. Worldwide evidence suggests up to 25% of people with diabetes will experience a complication known as diabetes-related foot ulceration (DFU), which precedes about 85% of lower extremity amputations [11] .For Aboriginal and Torres Strait Islander people, the risk of developing a diabetic foot ulcer is five to six-fold greater than in the non-Indigenous population, with the greatest risk existing in rural and remote communities [12]. In addition, Aboriginal and Torres Strait Islander children living in rural areas experience disproportionally high rates of skin infections and injuries leading to chronic wounds [13] when compared with non-Indigenous child populations [14].

A significant barrier to obtaining timely and effective wound care in regional and remote settings is access to a stable, appropriately skilled and resourced health work force [15]. In many cases, patients are required to travel long distances to larger medical services or hospitals in regional and/or metropolitan areas to obtain treatment. This can lead to financial hardship, psychological and/or psychosocial distress, and disruption to family life or in some cases, the client decides on no treatment. Information on culturally appropriate wound management for Aboriginal and Torres Strait Islander people is scarce, potentially impacting client behaviours seeking treatment from their health service providers [16]. In 2018-19, 32% of Indigenous Australians did not access health services when they needed to, due to cultural reasons, such as a lack of culturally appropriate services, discrimination, and language difficulties [2]. Similarly, poor infrastructure in some rural and remote regions providing access to specialised health practitioners and the costs to maintain a transient health workforce, all impact continuity of care and frequency of health service delivery for Indigenous Australians [1].

Aboriginal and Torres Strait Islander Community Controlled Health Organisations (ACCHOS) or Aboriginal Medical Services (AMS) use a primary healthcare approach to provide accessible, holistic, culturally safe health services within local Indigenous communities [17]. Within these services Aboriginal Health Workers (AHW) are key members employed independently by the Australian government to work with Indigenous communities to provide a broad range of essential, culturally safe primary health care services that includes chronic disease treatment, in rural and remote areas [18]. In 2020 there were approximately 842 AHW employed within AMS across Australia [18]. Depending on their role and level of training the Indigenous health workforce can hold the role of Aboriginal and/or Torres Strait Islander Health

Worker (ATSIHW) or Aboriginal and Torres Strait Islander Health Practitioner (ATSIHP). AHW currently require a minimum qualification of a Certificate III in Aboriginal and/or Torres Strait Islander Primary Health Care with AHWs largely employed within the Aboriginal Community Controlled Health Sector [19]. Aboriginal Health Practitioners (AHP) are registered members of the AHW workforce [20] and require a minimum Certificate IV in in Aboriginal and/or Torres Strait Islander Primary Health Care and can specialise in either community or clinical care.

Indigenous people in these roles are important mediators of access to culturally safe care and have a key role to help close the gap between Indigenous and non-Indigenous health outcomes [19]. Their individual scope of practice may include advocating for clients, planning, delivery and evaluating population health programs, providing advice and support, management activities and education [21]. Topp and colleagues [19] page11 identifies AHW are "everything to everyone" and a "jack of all trades", yet often do not have access to professional development opportunities to meet the expectations of their expanding role particularly in rural communities. The Industry Reference Committee [22] notes that the lack of professional development can prevent career progression and retention of AHW, limiting their ability to support and treat Aboriginal and Torres Strait Islander patients and maximise patient outcomes.

Despite the rapidly increasing incidence of chronic wounds in the Australian community due to rising rates of obesity, diabetes and an ageing population, the Australian Medical Association [3] identifies a lack of education and training as a significant barrier to implementation of evidenced based wound care in primary health care environments. The four collaborating AMS within the larger project identified that there is a need to provide improved care to clients in the treatment of chronic wounds and as such there is also a need to provide professional development for their AHW to provide care to clients in the treatment of chronic wounds.

This study informed part of a larger project that worked in partnership with four AMS in regional and remote Southern Queensland, Australia to develop a culturally appropriate wound management education program for AHW. This study aimed to ascertain the existing knowledge and experience of AHW with care of chronic wounds and to understand the barriers and enablers for AHW in providing wound care within the four-participating rural AMS. The main objective of the study was to determine the education and training requirements in wound management to maximise patient outcomes. The research question that guided this study was: *What is the experience of Aboriginal Health Workers within rural Aboriginal Medical Services with management of chronic wounds?*

Methodological approach

Yarning was used to investigate the experiences of AHW, AHP and nurses working within the four AMS with wound management. Indigenous research is more complex than simply obtaining answers to a research question, it is the cumulation of respect, reciprocity, and relationality [23]. Research Yarning or Yarning Circles as a research methodology has been used previously to empower communities and gain input for the design and delivery of education and health programs for Indigenous populations [24, 25]. Yarning Circles are a culturally safe method of group discussion grounded in oral traditions to make sense of lived experiences through storytelling within a respectful, supportive, and democratic space. As described by Bessarab and Ng'andu [26, 27], there are four types of yarning- social yarning, research yarning, collaborative yarning and therapeutic yarning which are all interconnected and can be part of one yarning session. Yarning serves many purposes including informal conversations, preservation of cultural knowledge, sharing of wisdom, and informing strategic decisions [28]. This study focused on the experiences of AHW and was led by two First Nations researchers, thus an Indigenous methodological approach such as yarning that is based on ways of knowing, being and doing was an appropriate methodology to guide this study. Ethics approval was provided by the Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS) Research Ethics Committee (EO240-20210114) and the University of Southern Queensland Human Research Ethics Committee (H21REA126). AIATSIS is Australia's overarching ethics committee for Aboriginal and Torres Strait Islander research, providing ethical leadership and protocols for research involving Aboriginal and Torres Strait Islander people, their traditional knowledge, customs, and collections. By obtaining ethical approval from AIATSIS our project was governed by the AIATSIS Code of Ethics, ensuring our reason for research, methodology and data analysis followed rigorous protocols to ensure the safety of Aboriginal participants, their workplace, and communities. All yarning was facilitated by the Aboriginal researchers on our team who are proficient in this methodology. Further information about our ethical process is provided in Additional file 1.

In addition, formal approval was granted from Chief Executive Officers at each of the four participating AMS sites through Letters of Support outlined in our AIATSIS application and all methods were performed in accordance with the relevant guidelines, policies, and regulations.

Participants and setting

Recruitment of participants was facilitated by the Practice Managers at each collaborating AMS who approached all AHW, AHP and nurses currently employed within their services to participate in the study. The Practice Managers emailed the Chief Investigators (CIs) with a list of individuals who agreed to be contacted about participation in the study.

The inclusion criteria included:

- Possess relevant qualifications for Aboriginal Health Worker (Certificate III in Aboriginal and Torres Strait Islander Primary Health Care), Aboriginal Health Practitioner (Certificate IV in Aboriginal and Torres Strait Islander Primary Health Care) or nursing such as an Enrolled Nurse (EN), Registered Nurse (RN), or Assistant in Nursing (AIN).
- Currently employed in one of the four collaborating AMS to provide clinical care.
- Over the age of 18.

Potential participants were then contacted by the lead Aboriginal nurse researcher in person or via the online platform Zoom, and a suitable date, time and venue was organised for yarning circles. Some participants were known to researchers only through professional liaison. Written informed consent was obtained for participation and for the yarning circles to be audio recorded and transcribed, with de-identified results permitted to be published. Participants were not monetarily reimbursed for their time.

We incorporated informal social yarning in our initial conversations with potential participants in each of the services in support of allowing staff from each service to join in a relaxed atmosphere that is culturally conducive and safe. This approach allowed participants and the research team to introduce themselves, get to know each other better, understand dynamics of each community and the research team described the research project, objectives and how participants can be involved, building trust and relationships.

Data collection

The yarning method is described by Bessarab & Ng'andu [26] as an Indigenous style of conversation and story telling that is used to establish a supportive and culturally safe relationship with the Indigenous participants as well as to collect research information from participants. In this study, Yarning Circles were used to collect information from AHW, AHP and nurses about their experiences of wound management and the barriers and enablers for providing wound care. Two Aboriginal RN researchers facilitated the yarning circles, trained in qualitative research methods. Each yarning circle lasted for approximately 45 min. An informal and flexible interview schedule approved by the ethics committees was used to guide the yarning circles, shown in the Additional file 2. The researchers were mindful of their own biases and conducted the research in accordance with ethical processes. The timeline for this study was impacted by the global COVID 19 pandemic, creating access issues to some Aboriginal communities. Due to pandemic lockdowns, some of the initial yarning explaining the research and yarning circle methodology with collaborating AMS including participant recruitment were conducted by the Aboriginal researchers using the online platform Zoom. However, all four yarning circles were conducted on site at each AMS, with two Aboriginal Researchers travelling to each site to facilitate.

Data analysis

Each yarning circle was digitally recorded then transcribed verbatim, de-identified and each participant allocated a pseudonym. The Aboriginal researchers present during the yarning circles, endorsed the yarning circle transcripts as a valid representation of the yarning circle discussions. Conventional content analysis as described by Hsie [29] was used for data analysis. For each yarning circle, the research team examined the transcripts line by line to code words, phrases, sentences, text segments, or paragraphs which participants shared and that appeared meaningful to the pre-established content areas of interest. The research team then compared and sorted the codes into categories by systematically classifying the codes, identifying themes or patterns, and finding consensus on meaningful content. A back-and-forth process between the transcripts, codes and categories was used to discern commonalities and differences. The categories were discussed to summarise key perspectives of the participants. Quotes from participants were used to illustrate key concepts within each theme. To enhance rigour and ensure authenticity of the data collection, analysis, and research, two co-investigators (one Aboriginal and one non-Indigenous) with expertise in qualitative research audited the data analysis.

Results

There was a total of eighteen participants in this study. Four yarning circles were conducted, one at each AMS. Two circles had four participants and two circles had five participants. There were four AHP, seven AHW with four of these currently training to be AHP. There were also four RNs and one EN participants. There were 14 females and four males, and the participants had a range of experience in working in AMS or working with Indigenous communities ranging from two weeks −28 years. Table 1 provides the number of participants at each site, gender, and role designation. Two themes were constructed

Table 1 Participants in yarning circles

Setting	Participant number	Role	Gender
Site 1	P1	AHW	Male
5 Participants	P2	RN (non-Indigenous)	Female
	P3	EN (Indigenous)	Female
	P4	AHP	Female
	P5	AHP	Female
Site 2	P6	RN (non-Indigenous)	Female
4 Participants	P7	AHW (trainee AHP)	Male
	P8	AHW (trainee AHP)	Female
	P9	AHP	Female
Site 3	P10	AHW (trainee AHP)	Male
4 Participants	P11	AHW (trainee AHP)	Male
	P12	AHW	Female
	P13	RN (Indigenous)	Female
Site 4	P14	AHW	Female
5 Participants	P15	RN (non-Indigenous)	Female
	P16	AHW	Female
	P17	AHP	Female
	P18	AHW	Female
Total		**18 participants**	

AHW-Aboriginal Health Worker; AHP-Aboriginal Health Practitioner; RN-Registered nurse; EN-Enrolled Nurse

from the yarning circles: *Knowledge and Experience with Wound Management* and *Barriers and Enablers for Wound Management.*

Knowledge and experience with wound management

Participants in this study had varying levels of hands-on experience in wound care and wound management. AHW and AHP identified that their exposure to wound care mostly involved working alongside and /or being guided by the doctor or the RN if they were available and/or onsite.

> *When I first started, I didn't really know what to do in the role [AHW role]. And often we will just open up the wound, have a look at it and then the doctor will come in and have a look and they'll make a decision what they want to do with it or if they need to refer it (P4 AHP).*
> *Reviewed by doctors and depending on the doctor who we have here at the time, they all have different ideas with wound management (P14 AHW).*

The types of wounds that participants experienced having to manage included surgical wounds, chronic wounds, wounds from scabies, and abscesses (that involved using wound packing techniques) and some wounds resulting from injuries and accidents.

> *We do all different types of wound care. Mostly in diabetic and post-surgery wounds (P14 AHW).*

By far the most common wounds managed were those arising from clients with diabetes who sought help with managing diabetic ulcers. Participants discussed how some clients had been receiving long term wound management for what is considered chronic diabetic ulcers:

> *I see them coming in and they're just ongoing, ongoing because they're chronic disease (P17 AHW) and one we have been dressing for 7 years (P18 AHW).*

Many of the AHW and AHP were frequently required to manage the wound care for clients without what the participants feel is the requisite knowledge or skill. These expectations that the AHW and AHP manage wounds often arose because of staffing within the services as one participant states:

> *Might have had the one experience with the dressing – wound management, but the expectations of "Oh, well you're in clinic today so you'll do the dressing." (P6 RN).*

Participants noted that nurses within their services have largely been the ones to receive and undertake formal training for wound assessment and management practices. However, the knowledge and skill were often not shared because of nursing staff attrition.

> *One person trained up there in wound management. You know, she went away, done the training. Well, she's no longer here so she took those skills with her (P9 AHP).*

However, the AHW and AHP participants were actively seeking skills and knowledge in wound management because they were not provided wound assessment and management care in their AHW training packages and there were expectations by their workplaces that they will provide wound care.

> *I didn't know that as soon as I clean it starts bleeding that means it's healthy, it's growing, like I didn't know that (P11 AHW).*

The AHW and AHP felt that they missed out on training opportunities to enhance their clinical skills in wound care because there was no regulatory body requirement for AHW to be completing professional development as is required with nurses.

> *As an Aboriginal health worker, I think the training probably falls back because a nurse has to do training [professional development] where a health worker doesn't (P17 AHW).*

Barriers to providing wound care

Participants described the barriers for them in providing wound care such as a lack of documentation and communication for transitioning client care, skill of the staff, model of care being used and the cost of the wound care products.

Lack of documentation

Participants identified that within the AMS there was often a lack of documentation in clients' medical records about any wounds a client may have, and how and if the wound/s were being managed. This lack of information in patients records about the wound posed barriers to being able to manage the wound and participants recognised did not provide for a consistent approach to management of the patient's wound.

> *We had a shortage of staff, so I went into the notes, had a look, it just said "wound care", nothing else, nothing else. So, yeah, of course there's going to be wound care, that's the reason … but then, you know, normal saline wash whether it was a foam or packing gauze or cream that was used, you know, melolin and a crepe bandage applied. There was nothing. So, I went in blind … (P6 RN).*

Lack of communication for transitioning client care

During the yarning circles there was concern for the transition and continuity of care between health service providers and much discussion around the relationships with other providers and how wounds were managed. Participants described a lack of communication with other health service providers within the community and a need for different models of care.

> *You don't really see the referrals. We just do the wound care if that makes sense. Like we don't know really know much about like what's going on and all that … (P12 AHW).*
> *Supervised by the GP because there's nothing documented in the patient's chart (P9 AHP)*

Case management was suggested as a model of care with respect to clients that have wounds because clients would present to an AMS for care of a wound and the participants experienced that it took some time for them to sort what needed to occur for the client in the absence of any documentation or communication from previous service providers or indeed from their own service around history and management of the wound.

> *I think it's on case management on the wound. That way everyone's involved …Trying to sort of get back with the hospital because the hospital doesn't speak to the clinic type thing…if you've got a chronic wound that's going to be longer you do need to case manage because there's more than just the wound. It's not just the wound so case management should be happening more, and we don't either get time or we can't organise it (P6 RN).*

Participants all felt that this lack of communication prolonged the wound management unnecessarily for the client and meant that there could be inconsistency between staff or service providers in terms of management of the wound. Participant experiences with liaising with other local health service providers around clients with wounds was not consistent. Some were able to narrate positive experiences where there were collegial supportive relationships with local health service providers in managing and transitioning the care of clients and their wounds.

> *We're building… Yeah, we're building on that now, because [uses name here] from the hospital, every two weeks she comes down and we do patient conferences…. And [names person here] up there, she's the community nurse, she emails me on clients that may have come back. So, we've got that link together then, yeah, because you know, on the weekends or whatever, after hours, yeah, she [community nurse] will fill me in… there's never/ hardly any discharge summaries (P4 AHP).*

Other participants described needing to develop better relationships with other health services. They were concerned for the welfare of their clients particularly when clients sought out of hours care for their wounds from mainstream health services and subsequently were then referred by that health service back to the AMS to continue the care during office hours.

> *Case conferences because some of our patients do care share, you know, as we shut at five and we don't open on the weekends, so there's clients that use both facilities, well [names person here] you know, she fills us in on what they've done (P5 AHP).*
> *I've spoken to them on the phone. But it depends on who's there. Sometimes I'll try and contact them, [local health service] and I can't get anyone and then other times I've had a couple who have been really good, and I've been able to discuss over the phone… I think they're always short down there [local health service] as well. So yeah, they don't really have any one particular [person] dedicated, you know, clinician to their clinic, which makes it difficult. Occasionally you will get some, but the wound clinic is only Monday to Friday. If clients need dressings over*

the weekend, then they just have to present to ED to get their dressings done. And they can sit up there for 6 h waiting to get them (P15 RN).

Lack of a consistent model of care

Yet for other participants they could not identify any relationship with other service providers in the community around supporting and managing clients who required ongoing wound care/management. There was a perception that more could be done for their clients when they present to other health services.

So, if they're Indigenous they will automatically [discharge to the AMS]. The hospital isn't very helpful sometimes in taking those clients (P16 AHW).

This situation was a cause of frustration because participants felt they were often not being included in what should occur for clients in management of the wound particularly when clients were referred to them, they had little knowledge of how the wound was to be treated and what else might be occurring for the client and this was preventing them from caring holistically for their clients.

People jumping between us doing it and Blue Care are doing it then the hospitals are doing it, then back to us doing it and everyone's got different ways of doing it that can leave the wound not progressing (P6 RN).

Participants expressed concern for their clients who came to the AMS for wound care because after presenting at other health service providers for wound care they were often referred directly back to the AMS with no attention to the wound as one AHCW stated *They don't want to go to the hospital, it slows the healing process (P18 AHW).* Participants experienced that client referrals to the AMS would frequently not be accompanied with discharge plan or clinical care notes indicating type of wound and the management.

It's just a huge, big gap. So, it's a bit difficult – like we'll send somebody up, we'll say "we can't – this wound is past what we can do", you know, "we need more specialised services". And usually, they will bounce back within 24 h usually. So, they'll go up, the hospital will have a look and go "No you're GP can do this", because that's a standard response to everything. And they will get bounced back to us again and to be reviewed by your GP within the next two to three days, and no correspondence whatsoever (P15 AHW).

This shared experience highlighted what can be a difficult strained relationships between the public hospital health service (HHS) and the Aboriginal Medical Service. In this context the HHS was not always prepared to manage a client wound but would rather quickly refer to the AMS regardless of the staff's ability to manage and assess a wound.

Discussions focused on models of care, highlighted that the way the participants wanted to practice needed to allow them to provide a more wholistic view of caring for the client who has a wound. Recognising that the role of the AHW was an all-encompassing holistic view of the client the participants did not want to just focus on the wound. They recognised that wound management was not just about the wound but also needed to extend and consider what was happening with the individual.

In the community we've had a few clients who have had diabetic ulcers. It was pretty much raw skin from the knee to the ankle, on both legs. We would get him to a point where there wouldn't be dressings anymore and then all of a sudden, they would be back, they'd all broken down again. That's just non-compliance with diet, medications, self-care, hygiene. They just get there, and they think all done, and throw everything out the window and it just slowly breaks down. They have to continue to keep coming. Because they get a cup of coffee and a yarn and socialise and… (P15 AHW).

It all becomes about the wound and so then you're not looking at the bigger picture and you need to look at the bigger picture because you're not going to heal that wound unless you deal with the bigger picture of what's happening the wound is like the starting point in that… (P9 AHP).

Further to this there was a perception that clients were not managing their wounds appropriately at home causing long delays in healing which added to the bigger picture of how they enacted their role-not just managing the wound but also helping to effectively manage and consider cultural aspects.

In the community we've had a few clients who have had diabetic ulcers but they're deliberate intentions to keep those wounds breaking down…I've noticed that probably three out of my four of my diabetic ulcer people were doing that (P15 AHW).

Inconsistent wound care management

A barrier to what participants thought was effective wound care was the continuity of care and the consistency in wound care management. For example, the

limited availability of staff who are trained in providing wound care and the availability of wound care dressings and products. Participants identified that if in their service the RN was the only one to perform wound care, then that often acted as a barrier for their clients because it reduced the client's choice of who provided the care. If the RN was busy or not available, then this often resulted in long wait times for clients or inconsistent management of the wound and delayed outcomes for the healing of the wound. For example, the below is from an AHW who explains.

> *If [mentions name here] is who's doing their dressing every second day but they are on leave so someone else takes over the dressing, well you've got clients who then don't like the person that's going to be taking over the dressing so don't come back so when [mentions name here] comes back the wound has gone backwards…But, yeah, it's just a lack of staff that's available and choices (P6 RN).*

Cost of wound care products

Additionally, many of the products used on the clients' wounds by other health service providers may not be available to the AMS and this was also thought by participants to influence the consistency of wound management and subsequent wound outcomes for the client.

> *The biggest thing for us is with the hospital, so if people get discharged from the Wound Clinic for the hospital, the stuff that they are using we don't have. So, then we have to alter whatever's been done. Most of the time they're reviewed by doctors and depending on the doctor who we have here at the time, they all have different ideas with wound management (P14 AHW).*

Lack of professional development opportunities

Only two participants from two of the four AMS were able to identify professional development opportunities directed at wound management as an enabler for their wound care management practices. One AHW had received online education and one AHW had attended face to face workshops at another health service.

> *The online one, [education program] was actually by a podiatrist who's a specialty wound diabetes educator as well. So, she was really good and gave us a really good overview of what to look for and didn't highlight any particular dressings, you know, like brand name dressings, just the type of thing that you would need to help control that wound. So, it was really good, that online one … was really thorough with what she taught us (P14 AHW).*

AHW participants who had opportunities to attend and/or complete education on wound management all agreed that this training for them was very beneficial.

> *Training over [mentions health service name here] that was pretty good. We got to see – I think for a week or so and see a number of different people and like different types of wounds (P10 AHW).*

An enabler for management of wound care in the absence of formal support or education was the mentoring support from more experienced nurses in wound care.

> *I never got taught, I was getting taught by another nurse of ours, she showed me a lot of stuff and there were a few clients coming in with wounds and so she said, "Come and watch what I have to do." And she's just teaching me some stuff she's also one that was like giving me more knowledge (P1 AHW).*

Participants described seeking knowledge and using self-support strategies for enabling their wound care skills.

> *We learn from each other…. there should be enough wound clinics around the area where the health worker or everyone, when they're doing their training, should be able to say, okay, "we're going to put you down there now for a month because it's part of your training where you learn", you see, you look, you hear, you know (P 4 AHP).*
>
> *But we usually have a standard sort of approach to what we use on particular wounds… If one person's doing a dressing and they think "something is not going right, we need to try something", so well everybody usually talks between each other to decide what we're going to do if we need to change the dressings (P14 AHW).*

Discussion

This qualitative study utilised yarning circles to document the experiences Aboriginal Health Workers around providing wound care in rural and remote Aboriginal Medical Services. The findings demonstrate that despite AHW having limited knowledge and experience with wound care and wound management, they are required to manage chronic wounds within their practice settings. For many, their experiences of wound care/ management were limited to knowledge gained from working alongside or being directed by nurses or doctors. This study identified barriers and enablers for AHW to provide

effective wound care. The participants experienced many barriers in providing effective wound care and the only enablers identified were experienced staff willing to mentor and share their skill and knowledge around wound care. Barriers were related to a lack of formal education and training for AHW in the provision of evidenced based wound care, availability of wound care resources, and relationships with other health care providers that impacted transitions of care for clients with a chronic wound.

Participants in this study identified that wound care is delegated to them, because there was no other staff available and despite attempting to treat chronic wounds within their practice they feel that they are unable to fulfill their role of delivering culturally safe holistic care for the client with a chronic would because they do not have the skills nor evidence based knowledge around wound management to ensure the best outcomes for the patient. Very few participants in this study had opportunities afforded to them to attend professional development around evidence based wound management. Topp et al. [19] identify that AHW with their broad clinical scope are central to improving health, however, have insufficient educational opportunities. More recently, Wounds Australia [10] identify that inadequate wound care education leads to poorer patient outcomes and recommend current best practice wound care education for primary health care professionals to be a government priority to ensure that evidenced based wound care is available for all Australians. Wounds Australia [10] recommends the introduction of wound care units of competency in tertiary education courses including Certificates III & IV in Aged Care but does not extend this recommendation to include certificate III and IV courses in Aboriginal and/or Torres Strait Islander Primary Health Care.

The results of this study indicate that there is a clear gap in knowledge and skill of AHW around evidenced based wound care for chronic wounds. Participants in this study identified that they are unable to deliver culturally safe holistic care for the client with a chronic wound because they have limited clinical skills and knowledge in management of chronic wounds. Participants believed this lack of evidence based knowledge affected continuity of care for the patient and potentially delayed wound healing. The participant's experience was that all Aboriginal and Torres Strait Islander clients were automatically referred onto the AMS, therefore, fundamental training in the care and management of wounds would improve transitional care, liaison with other care providers and health outcomes for those with chronic wounds.

Investment in fundamental wound management training would provide AHW and AHP with the necessary skills around how to document assessment findings of a chronic wound and subsequent management including options for wound care products, given that the cost of wound care products was perceived to be a barrier to enable timely wound healing. It also addresses the unequal relationships that exist between Indigenous and non-Indigenous health professionals, recognising the importance of upskilling Aboriginal Health Workers/Practitioners to create culturally safe access to effective and affordable wound care treatment. This aligns with recent Australian Government Initiatives to increased funding to improve the understanding of wound care among AHW to undertake formal training to improve wound management in primary care settings [30].

Due to COVID-19, limitations did exist and impact on the initial plan of meeting with executives of individual services from a governance perspective however AMS were well prepared and versed to navigate COVID and the necessary precautions and worked alongside the research team to navigate and rearrange alternative ways to engage participants.

Conclusion

This study was only conducted from one Australian jurisdiction, the state of Queensland therefore does not represent the views from Aboriginal organisations across the rest of Australia. However, the study has gathered experiential data from AHW, AHP and nurses employed within four AMS on the current barriers to timely treatment of chronic wounds. These findings have been used to inform the development and delivery of an evidence based, culturally appropriate chronic wound care education program specifically for AHW to increase the capacity of AHW to improve wound healing and wound care practices.

Abbreviations

AHW	Aboriginal Health Worker
AHP	Aboriginal Health Practitioner
RN	Registered Nurse
EN	Enrolled Nurse
AMS	Aboriginal Medical Service
ACCHOS	Aboriginal and Torres Strait Islander Community Controlled Health Organisation
ATSIHW	Aboriginal and Torres Strait Islander Health Worker
ATSIHP	Aboriginal and Torres Strait Islander Health Practitioner
AIATSIS	Australian Institute of Aboriginal and Torres Strait Islander Studies
HHS	Hospital and Health Service

Supplementary Information

The online version contains supplementary material available at https://doi.org/10.1186/s12913-024-11490-2.

Additional file 1: Yarning circles ethical checklist (Describes in detail the stringent ethical processes involved with our yarning circle research)

Additional file 2: Table 1: Interview guide for Yarning circles (Eight questions approved by the University of Southern Queensland Human Research Ethics Committee (H21REA126) and the Australian Institute of Aboriginal and Torres Strait Islander Studies (ATSIS) Research Ethics Committee (EO240-20210114) to guide the Yarning circles)

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Author contributions
H.K and J.L wrote the manuscript text and prepared the tables. H.N provided expert wound knowledge within the text. R.W and V.H performed the yarning circles and data collection at the 4 AMS. R.W., J.L., V.H., and H.K. reviewed the data transcripts and collated the results. EW managed the project, ethics, grant application, funding distribution. RW was the Indigenous advisor for the project. All authors read and approved the final manuscript. H.K. collated and wrote the Point-by-point response and Additional file 1, with collaboration from the research team.

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Data availability
Transcripts from the yarning circles that support the findings of this study are available on request from the corresponding author.

Declarations

Ethical approval and consent to participate
Ethics approval was provided by the University of Southern Queensland Human Research Ethics Committee (H21REA126) and the Australian Institute of Aboriginal and Torres Strait Islander Studies (ATSIS) Research Ethics Committee (EO240-20210114). In addition, formal approval was granted from Chief Executive Officers at each of the four participating AMS sites. Written informed consent to participate in the yarning circles was obtained from participants after reading and understanding the provided written participant information sheet and consent form.

Consent for publication
Not applicable.

Competing interests
The authors declare no competing interests.

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