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RESEARCH ARTICLE

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Yarning about river safety: A qualitative study exploring water safety beliefs and practices for First Nations People

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Abstract

Issue Addressed: Water is vital to Australian First Nations Peoples' connection to country and culture. Despite this cultural significance, and epidemiological studies identifying elevated drowning risk among Australian First Nations Peoples, extremely limited qualitative research explores water safety beliefs and practices of First Nations Peoples. This study addressed this knowledge gap via qualitative research with Wiradjuri people living in Wagga Wagga, New South Wales.

Methods: Under Aboriginal Reference Group guidance, a local researcher recruited participants using purposive sampling for yarning circles across four groups: young people aged 18–30 years, parents of children under 5, parents of older children and adolescents and Elders. Yarning circles were audio recorded, transcribed and thematically coded using an inductive approach.

Results: In total, 10 First Nations individuals participated. Yarning led to rich insights and yielded five themes: families as first educators; importance of storytelling, lived experience and respect for knowledge holders; the river as a place of connection; historical influence on preference for river over pool and river is unpredictable and needs to be respected.

Conclusions: This study demonstrates the importance of First Nations culture to water safety practices, particularly around the river. To reduce drowning risk among First Nations populations, knowledge holders need to be embedded in the design and delivery of community water safety education.

So What? Co-designing water safety initiatives with First Nations Peoples will have dual benefits; developing culturally appropriate and locally relevant water safety education, while also continuing First Nations culture across generations.

KEYWORDS
community-based participatory research, drowning prevention, Indigenous population, injury, knowledge, rural communities

1 | BACKGROUND

Australia's First Nations groups are not homogenous, each has their own culture, language, beliefs and practices.[1] Connection to Country, both land and water, are vitally important to Australian First Nations Peoples.[2,3] Connection to, and custodianship of water in particular, plays an important role in the cultural lives of salt water and fresh water First Nations Australians.[4,5] In fact, key examples of First Nations'

scientific and engineering heritage are seen through aquatic examples—such as the system of stone fish traps of the Ngunnhu people on the Barwon River at Brewarrina, as well as aquaculture and eel farming practices of the Gunditjmara people of south-western Victoria.[6]

Connection and interaction with water for both recreation and activities of culture and daily life, highlight the importance of safety for children and families when engaging in aquatic activities. Despite this importance, there are scant studies exploring water safety behaviours and drowning risk among First Nations Peoples in Australia.[7] Of the limited literature, the majority focus on epidemiological analyses of fatal drowning using coronial data.[8–10] Nationally, rates of unintentional fatal drowning among First Nations Peoples have declined by 47% between 2008/2009 and 2017/2018; however, First Nations Peoples continue to drown at a rate that is 1.7 times that of non-First Nations Australians.[11]

Inland waterways, such as rivers, creeks, streams, lakes and dams, are drowning locations of concern for First Nations Peoples. This concern stems from elevated drowning rates for rivers (4× higher risk than non-First Nations people), a significant association between First Nations people and alcohol-related drowning in rivers and significant overrepresentation for drowning in lakes and dams, compared to non-First Nations people.[9,10,12] Among studies of drowning in children, First Nations children experience higher rates of drowning in portable swimming pools[13] and in Queensland, the only peer-reviewed study of non-fatal drowning among First Nations children has identified fatal and non-fatal drowning rate 44% higher than the incidence rate of non-First Nations children.[8]

Learning to swim is a key strategy for reducing drowning risk.[14] Participation data from formal learn-to-swim programs indicates First Nations children are under-represented compared to their non-First Nations peers, but when given the opportunity perform well, achieving skills at the same age as non-First Nations children.[15] Barriers to participation in swimming have also been documented for First Nations women, highlighting limited opportunity, discrimination and challenges by way of access to water and water safety.[3] Lower participation or barriers to participation are residual effects of racially discriminatory laws which prevented First Nations peoples from entering swimming pools until the mid-1960s.[16]

To date, there has been no qualitative research conducted with First Nations Peoples in Australia, exploring water safety and drowning prevention beliefs and practices.[7] The overarching aim of this study was to provide insight into the oldest surviving culture in the world, creating awareness of how their knowledge systems and beliefs shape the education and passing down of knowledge, for safety, cultural practice and the deep connections relating to bodies of water. In particular, the study aims were to: (1) identify water safety and drowning prevention beliefs and practices of First Nations Peoples and (2) explore feeling towards and interaction with different aquatic locations in Wagga Wagga.

2 | METHODS

2.1 | Study design

Indigenous knowledge is circular, not linear. 'Ways of knowing' (Epistemologies) and 'being' (Ontologies) ultimately form 'ways of doing' (Axiologies) and vice versa.[1] Globally, for many First Nations Peoples, the use of oral communication is the most significant medium through which knowledge, cultural and kinship ties are produced, practised and maintained.[17] This study uses a qualitative design to gather deep insights and supplement understanding of drowning risk for Australian First Nations Peoples that have, to date, been identified via epidemiological studies.[8–12]

Yarning circles are an accepted, ethical and culturally appropriate means of conducting qualitative research with First Nations Peoples[17] and were used in this study to collect data. This study represents the first time this approach was specifically used in water safety research, having been used in injury prevention research previously.[18] Yarning circles, broadly consist of storytelling within a respectful and deeply democratic space, where each participant takes turns in speaking, and in which the direction of discussion may meander, fixate or take divergent and creative lines of flight.[17]

2.2 | Study setting

This study was situated in Wagga Wagga, a regional inland city in the Riverina district of New South Wales (NSW), Australia's most populous state. Wagga Wagga has an estimated resident population of 65 770.[19] Wagga Wagga is on Wiradjuri country, which is located on the lands of three rivers: Murrumbidgee (Marrambidya); Lachlan (Galari); and the Macquarie (Wambool). Wagga Wagga itself is on the banks of the Murrumbidgee (Marrambidya) River, one of the country's leading river-drowning blackspots.[20]

2.3 | Study team

Our team comprised researchers from both First Nations (J.W. and F.M.) (insider researchers) and non-first Nations backgrounds (A.E.P.) (outside researcher). The lead author (J.W.) is a local First Nations woman with songlines from Cowra and Wagga Wagga, NSW. J.W. grew up on the river systems of the Galari (Lachlan) and Marrambidya (Murrumbidgee), also having experience with loss of a school friend's sibling due to drowning.

F.M. is a First Nations woman, also born and raised on Wiradjuri country and well-respected in the local Wagga Wagga area. A.E.P. is a non-first Nations academic and drowning prevention researcher who was born and raised in regional NSW, also on Wiradjuri country, and has previously conducted research in Wagga Wagga, at Wagga Beach on the banks of the Murrumbidgee River.[21] Researchers J.W. and A.E.P. kept a reflexive journal comprising field notes and personal reflections during and after the conduct of each yarning circle and reflected on these throughout the phases of thematic coding, to make sense of data and acknowledge biases.

2.4 | Aboriginal Reference Group

Author J.W. was responsible for establishing an Aboriginal Reference Group (ARG) to provide advice on culturally appropriate and locally

relevant water safety issues facing First Nations Peoples in Wagga Wagga, including guiding development of the discussion guide, assisting in participant recruitment and interpreting findings. ARG members comprised representatives of the Murrumbidgee Local Area Health District, Playgroups NSW and the Wagga Aboriginal Women's Group. ARG meetings provided feedback on the discussion guide and participant recruitment, as well as considering findings and recommendations. Reimbursement of costs was covered by the UNSW research team in the method of 60 AUD gift vouchers for each ARG meeting.

2.5 | Participant identification, recruitment and reimbursement

Participant recruitment was undertaken in the community via promotion through First Nations-run organisations such as LikeMind Wagga, Wagga Aboriginal Women's Group and the Aboriginal Health Strategy Team within the Murrumbidgee Local Health District and word-of-mouth.

Recruitment sampling required representation from: Young people 18–30 years of age; Parents and caregivers of young children aged 0–4 years (Family group 1); Parents and caregivers of older children aged 5–17 years (Family group 2) and Elders. We aimed to conduct at least one 2- to 3-person yarning circle for each of the participant groups. Participants were invited to join a yarning circle on the topic of water safety and drowning prevention which was estimated to last 60 min in duration; and advised they would be reimbursed with a 50 AUD pre-paid gift card to cover any expenses incurred while participating in the session. Due to a lack of male Elder perspectives during the originally scheduled yarning circles, a further discussion was facilitated via Microsoft Teams with an adult male Elder. The session was audio recorded, transcribed and included for analysis.

3 | DISCUSSION GUIDE DEVELOPMENT

A draft discussion guide was developed by the authors and further refined in discussions with the ARG. The guide was used loosely within the yarning circles for discussions to flow as naturally as possible. The discussion guide covered topics such as: participant introductions, water safety and drowning prevention beliefs, use of water bodies (where, what activities and who do you visit with) and what water safety and/or drowning prevention practices are being used. In discussions with the ARG, questions regarding flooding were opportunistically included due to widespread flooding impacting the local area during the time when yarning circles were scheduled to be conducted. The discussion guide can be found in Supplementary File 1.

The discussion guide also included question sets to guide discussion specific to the three participant groups. These included questions about water safety among peers for young people aged 18–30 years, questions about supervising of children and water safety needs of parents of both young children and older children and adolescents for parent groups, and questions for Elders about what has changed with water usage in their lifetime if anything and also reflecting on what they think the community may need with respect to water safety and drowning prevention.

In keeping with local First Nations and Wiradjuri cultural protocols, in accordance with consultation from local First Nations Elders and community members, yarning took place with local First Nation females Elders first, followed by males, then parents and then younger adults. Yarning circles were held in a culturally safe environment and facilitators were mindful of cultural, emotional and spiritual safety, proceeding slowly, politely and with respect (Yindyamarra).[22]

3.1 | Data collection, transcription and analysis

Yarning circles were held at local community centres in October 2022. Prior to discussions commencing, participants were advised the project was voluntary, and they could withdraw any time up until yarning circles commenced. Prior to commencing the yarning circle, participants were provided with a participant information sheet and consent form, with participants signing to indicate their informed consent. No First Nations person who participated in this project incurred any costs associated with the project. The research team provided flexibility by hosting yarning circles at a culturally safe location of the participants choosing.

Two researchers (J.W. and A.E.P.) jointly conducted the yarning circles. Field notes were taken and consulted, used as the basis for discussion between the researchers after each session. No refinement to the discussion guide was deemed necessary after reviewing field notes. Data were audio recorded and transcribed. Transcripts were analysed by authors J.W. and A.E.P. using NVivo.[23] Analysis followed both descriptive procedures to explore emerging themes and subthemes and more analytical processes to develop theories on motivators, facilitators and barriers to water safety and drowning prevention beliefs and practices.

Data were analysed in an inductive approach as outlined by Braun and Clarke.[24] This five-phase methodology was undertaken as follows: authors familiarised themselves with the data by rereading the data and noting down initial themes (phase 1). The authors individually generated initial themes by systematically coding interesting features of the entire data set (phase 2). The authors then reviewed the themes generated, solidified and developed a thematic map for coding. The authors cross-checked and confirmed individual thematic coding of themes (phase 3). Separately, the authors analysed the qualitative data into themes (phase 4). The authors then met to compare the contents of each theme and refine any outstanding issues via discussion, with greater emphasis placed on First Nations researcher (J.W.) perspectives (phase 5). Findings were presented to the ARG at phase 5, including the presentation of themes and preferred quotes to populate these themes.

Themes which emerged across participant groups were explored. Themes are depicted with select quotes from respondents. Quotes are reported verbatim, with edits made for grammatical purposes depicted in square brackets. Quotes are attributed to the participant group in which they were said, rather than to the individual participant.

3.2 | Ethics approval

Human research ethics approval was granted by the NSW Aboriginal Health and Medical Research Council (AH&MRC) (approval number: 1880/21).

4 | RESULTS

Four yarning circles were undertaken ($n = 10$ people; 60% female): Two young adults aged 18–30 years; two parents of children 0–4 years; two parents of older children and four Elders. Five themes were identified: families as first educators; importance of storytelling, lived experience and respect for knowledge holders; the river as a place of connection; historical influence on preference for river over pool and the river is unpredictable and needs to be respected.

4.1 | Theme 1: Families as first educators

Participants articulated that water safety knowledge was passed down from generation to generation with an emphasis on the oral traditions of First Nations peoples. This was exemplified by the following quote:

> *'They learn it from very young age, so it's instilled in them, and you tell them if they get a bit shame in front of other family members so they just don't do it. Yeah, it's the time when they say they go into the pool and they sneak down the deep end, that's the time when you've got to watch it. But you do try and educate as much as you can, and you always get a lecture before you go anyway'.*

Male Elder

Many participants felt that the first teachings should be provided by family members, with another male participant from the parent group stating they had received water safety education this way and continued the tradition with their own children:

> *'So we were taught that, and we teach the boys that the importance of not jumping into the river, you have got to check what is in there first. And we've also taken the boys, like, on a float in the kayaks and stuff like that. And as we're going, we teach them about what's underneath'.*

Family Group 2

The power of knowledge held by their Elders was also discussed. Elders were seen as the original source of knowledge around water safety and the sense of obligation from younger generation to 'do the right thing' by their Elders provides evidence of local Elders being a conduit of water safety information for the community.

One participant described this sense of obligation:

> *'No, you're around the Elders all the time and then you know not to muck up or anything because once your Elders tell you something, then that's still upon you and you don't ever forget it really. Because you don't want to do wrong by Elders either'.*

Family Group 1

Despite the acknowledgement of generational experience, with many participants speaking of the knowledge being passed and the importance of listening to that knowledge in order to stay safe, some participants lamented that this knowledge was not being passed on through some First Nations families:

> *'Imagine that sort of stuff happening into the river with now, how dirty the river is. Imagine not being able to see that person go under. You don't know where they are. That current social net could be done in. How scary could that be? Where that's where people need that. They just need to know what the river is like. You just need some of that knowledge around it'.*

Family Group 1

Similarly, another Female Elder described her concerns with knowledge not being passed down as contributing to increased drowning risk:

> *'They are not taught that the river is important, and you've got to respect the river. The river talks to you and tells you what's going on at this time of day or that time of day. It's not just water rushing, and you can go jump in, you need to be able to read it, and you need to know when it's a good time to swim in the river. You need to know when it's not a good time to swim in the river'.*

Elders Group

4.2 | Theme 2: The importance of storytelling, lived experience and respect for knowledge holders

The importance of water safety education through storytelling was identified across all groups with participants speaking of the importance of passing on the oral traditions of First Nations peoples through storytelling for the survival of culture and heritage. These stories provide pivotal lessons of safety behaviours, respecting the land and waterways and understanding that the river systems and environment are always changing. In particular, one participant spoke of learning of dreaming stories at a young age that highlighted the importance of being wary of the dangers water can pose:

'We're born into it. You get told all the scariest old stories that stop you from being naughty, but not to go near the water if you're not like, don't leave your parents, things like that. And you wouldn't want to go leave your parents to go down and just check out the water because you think that this scary thing would be coming after you, chasing you'.

Family Group 1

Participants indicated water safety was innate to culture:

'See, we obviously have different understandings than non-indigenous people, so they wouldn't think of that sort of stuff. That's normally the first thing that we've been taught. Like, just because it looks calm, it's not calm type of thing'.

18–30 years age group

Two examples of this oral history around water safety knowledge and practices, particularly as they relate to the river, were mentioned by participants of both family groups. These stories have been passed down through each generation as a way of learning to observe the rivers and look for hazards. Two key stories mentioned by participants related to water creatures, known locally as 'Bunyip' and the 'Water dog.'

One story described the 'Bunyip corner' or 'Bunyip holes' which explained how the current can vary with the flow and direction of the river. One participant explained how this story was common knowledge in the community and was told to keep the children safe in the local river systems.

'So you tell the story that you don't go around Bunyip Corner. That's up on Brungle mission. And so Bunyip Corner is where a rip comes, and it's not a corner. And so we teach the kids, that the bunyips in there, and he pulls you under. And I didn't know that it was actually just a rip, where you see this bunyip that lives in there. And that's our story, and it's not a myth. He's in there, and he only lives in that rip area. So that's how we teach our kids'.

Family Group 2

The 'Water Dog' was another story described as hiding in the deep water waiting to pull children under who go out too far. One participant noted the impact the story had on him, spanning youth to adulthood:

'Old fellows talk about the water dog and he comes and collects you if you're too close to the water, if you're camping at night, he'll pull you in'.

Family Group 2

Another described the water dog as a

'Water creature who can hypnotise young girls to become his wives if they swim out too far'.

Family Group 1

The importance of these stories for keeping children safe also highlights the kinship obligation of older family members to keep children safe around water:

'There's other safety ones. Some of them can smell the kids if they're not with adults, so they get out of the water or whatever. They've generally without an accompanying adult. You put that respect, fear in them. But if they do go into the water without an adult, they can't get taken or pulled in'.

Family Group 2

Stories and cultural practices designed to instil safety practices in children are also linked to spiritual connection to water. As one participant explained showing respect to the land and environment, as well as the water spirits and ancestors, is also a way to practice water safety:

'I remind my kids that when you're around water to just let them know your there you're not there to do any harm'.

Family Group 1

A male parent group participant spoke at length of the longstanding oral history of First Nations Peoples, including about water safety, yet lamented the lack of value placed on these knowledges within a Westernised context:

'Most of them are uneducated. The Western world has done a pretty good job of playing down our customs, traditions, stories and stuff like that. The best example of that would be how they play down stories, which is one of the oldest forms of philosophy. They pay our philosophy stories and teachings off as kids tales and nursery rhymes and oh, that's a little dreamtime story you count when you're at kindergarten or whatever, rather than having a full understanding of what the story was and the teaching behind it, to then be able to implement it in a proper way. So I guess the Western world has done a pretty good job of belittling or taking the power away from those teachings and turning them into playful things'.

Family Group 2

Many participants agreed that stories were a valuable way of both communicating water safety but keeping culture alive:

'I think it's how much that the family knows as well. I think that's why it's so important that we continue to share our culture with others. Yeah. That story has been around for tens of thousands of years. It'd be a shame for it to die out another 250, so keep it going as long as we can'.

Family Group 2

4.3 | Theme 3: The river as a place of connection

Across all groups was the river as a place to connect; to culture, to family and to the self. Many felt the river helped them connect to their culture via ancestral knowledge:

> *'And you also have that cultural knowledge too. And knowing that our ancestors were on the river and also just having that cultural knowledge and to go down there and just to feel that as well'.*

Family Group 1

These ties were strengthened by the practical connection to rivers for food and other natural resources, as well as a means of guiding ones' travels:

> *'I just think that's where most of the resources are, you know what I mean? That's where the food and it's just always probably been that meeting place. That's where you sort of find your way. You'd walk the river, walk along the river, follow the riverbanks, and you end up somewhere'.*

Family Group 1

This connection was felt deeply, whereby it takes time to connect to a different river system than the one you grew up on. As one participant said:

> *'It's just a weary feeling. Like, it's not my space where I've grown up in, but now being here and living here for over 30 years, it's becoming my space, and I'm feeling more like I feel more comfortable'.*

Family Group 1

Throughout all groups, participants described the river as a place to reset and recharge. The benefits of being able to increase their well-being with a visit to the river were best explained by a mother of young children and teenagers who said:

> *'It's about the peace, you just want a bit of peace sometimes. And just even taking the kids down or yourself, us two my sister and me will just go down and just sit by the river. And it's just like not pausing the world around us, but just sort of getting it back together to know who we are again, to be able to connect again better'*, it is not just spiritual, but physical and emotional *'Yeah, it's a feeling that it's hard to explain until you do it yourself. It's like getting your toes and just soaking it back into the dirt and take your shoes off and connect back with country again. Yeah, mother'*.

Family Group 1

This connection to the river as a place to connect with nature also intertwined with the ability to both practice culture and learn about water safety:

> *'Our kids practise a lot of culture in the river. It's my collection of the freshwater mussels. A lot of our stories are connected to the river. We've got dances around that have connection with all the animals that come from the river and stuff like that as well. So it's teaching our kids not just about water safety, but about their cultural connections. So if you're looking to improve on these kind of things, I suppose it's connecting it to culture and what our kids grow up with'.*

Family Group 2

4.4 | Theme 4: Historical influence on preference for river over pool

Linked to the importance of the river as a place of spiritual, physical and cultural connection was the preference for river over pool for recreation. The connection that was felt deeply in the river environment was contrasted with the different feelings created by the pool environment:

> *'But our communities are all about connection. You go into environments like that [the pool], people lose connection. They lose connection with each other, they lose connection with that water, they lose connection with their kids. We still hold that connection when we're at river'.*

Family Group 2

As another participant added:

> *'It's just a completely different feel. When you're down at the river. You could go to the Oasis [the local aquatic centre] with your family and it could just be a swim, but you go to the river with your family and it's just like family time'.*

18–30 years group

This preference for the river over the pool was also a view shared by younger participants. It was felt that the local pool was not an environment that felt culturally safe or welcoming, in part due to past historical restrictions and limitations for First Nations persons:

> *'It's a white institution for me. Because its people with money that go to the pool, all those kinds of things'.*

18–30 years group

Cost as a barrier to inclusion also led to feelings about the pool being a place of privilege, further affirming that the river is a place where everyone is welcome.

> *'I think it's a privileged thing, too. Yeah. We never have the money to be able to pay to go to the pool'.*

Family Group 2

4.5 | Theme 5: River is unpredictable and needs to be respected

Even though many participants expressed a preference for river over pool, it was widely agreed that the pool differs from the river when it comes to safety:

> *'The pool? You've got lifesavers and first aid and all that sort of stuff right on the spot. If you go to the river, you could be an hour away from a hospital or an ambulance or something, something like that. You really have your wits about you when you're swimming in [the] river'.*

Male Elder

Participants explained that the river is a changeable environment with its own inherent risks that need to be respected:

> *'Just respect, like the river has its own mind, like us humans as well. And like you said, when it's pumping that's in, it could be pumping one day and could be still the next day'.*

Family Group 1

> *'When you're on the river, whether it's drought or flood, you just got to respect it'.*

Male Elder

One family group participant described the concerns with a younger generation and the risky behaviours displayed at local river systems, reflecting on how the beliefs and practises have changed since becoming a parent.

> *'Now, as a parent, I would be terrified to have my kids just take off down the river. I know there hasn't really been much Indigenous people around in the local area here in Wagga Wagga that has drowned. Because we've all grown up in the river. We know what it's like where you have seen, like, where we have seen like foreigners coming to town and they'll jump in the river, not knowing the current of the river as well. You hear three or four days later, they found a body and you think it's just another foreigner, which it is, because they don't know what the rivers are. There's been, what, a couple of Sudanese kids last 15 years? I think it has been'.*

Family Group 1

As parents, participants also commented on the importance of supervision of children at the river, given the changeable environment with inherent natural risks:

> *'Because you think someone else is watching them and yourself also. You have that ingrained fear and respect, I guess, for what could go wrong at the river. And you're watching pretty close'.*

Family Group 2

5 | DISCUSSION

First Nations families continue to be overrepresented in many disease and injury data,[25,26] including drowning statistics.[8,11] Despite these inequalities, limited qualitative research exists on water safety among First Nations Peoples. Under the guidance of a locally formed ARG, this study used yarning circles to qualitatively explore water safety and drowning prevention beliefs and practices of First Nations Peoples residing on Wiradjuri land in Wagga Wagga. Discussions provided insights to inform future drowning prevention initiatives and campaigns which are culturally appropriate and locally relevant.

5.1 | Inherent knowledge and the power of storytelling

One of the most compelling findings of the current study was the inherent knowledge possessed by First Nations Peoples in Wagga Wagga, particularly as it relates to water safety. Many participants described water safety knowledge as being with them from birth, with families providing the first water safety education children get, and many participants continuing those traditions with their own children and grandchildren. Others spoke of the power of Elders, with many indicating that to misbehave at the river would be of deep offence to their Elders and their families.

First Nations peoples possess tens of thousands of years of cultural knowledge and practices,[1] including on water safety, and that was indicative in the storytelling and cultural practices around the river and river safety that participants spoke of. It is vital that these ways of knowing, being and doing, are honoured and incorporated into water safety education and drowning prevention interventions. This could be through the extension of existing programs to include local narratives about river safety in pre-school and school-based education, as well as the use of artwork from local artists on signage as in-situ educational materials at the river. While all initiatives would need to be undertaken via appropriate local consultation, they would provide further opportunities for employment, training and

ownership of local drowning prevention interventions. Such use of culture has informed treatment for addiction,[27] informed tailored tobacco control,[28] and ensured cultural safety in treatment of burns[29] in the past in Australia. Internationally, but specifically related to drowning prevention, the New Zealand approach has seen the 'Wai Puna' model of water safety, and its three pillars of Whakapapa: Attitudes & Beliefs, Matauranga: Knowledge and Tikanga: Behaviour, inform the sectors' strategic approach to drowning prevention.[30]

5.2 | Strong connection to the river yet healthy respect

Research participants clearly verbalised the connections they felt to water, and the river in particular, on environmental, spiritual and cultural levels. This connection has been previously described in the literature,[2,3] including being identified as something which enhances well-being.[31,32] Our participants echoed this view, identifying physically connecting to the river provided peace and stilled the mind.

This connection to the river and its surroundings was discussed alongside a pragmatic understanding of the river environment as being changeable and potentially hazardous if not respected. These concepts of respecting the river included spiritual and cultural respect shown, as well as respecting the natural resources present from an environmental perspective, but also showing respect to a potentially risky location with respect to water safety and drowning prevention. This conceptualisation of water safety from a lens of respect aligns well to the drowning prevention and water safety messages in the Respect the River national river drowning prevention public education and awareness campaign.[33] Such ideas identified in the present study could be leveraged by water safety practitioners to provide both a localised take on the Respect the River program and also make the program more culturally responsive for First Nations Peoples.

5.3 | Safety implications of preference for river over pool

Yarning circles provided insight into the beliefs held by participants that underpinned a preference for the river over the public pool. Feelings of discomfort and not being welcome in a perceived place of privilege were expressed by participants across all groups and of varying ages and life stages. Such feelings are likely influenced by historical discriminatory legislation,[16] the effects of which are also seen in the limited opportunity to participate in swimming for First Nations women and[3] lower participation in formal learn-to-swim programs for First Nations children.[15]

This preference for river over public pool has potential safety implications. Public pools are controlled environments and provide a supervised swimming location with rescue and resuscitation personnel and equipment present. The safety of such locations is evident in the very low drowning fatality rate compared to visitation at public pools,[34] when compared to other aquatic locations such as rivers which record extremely high numbers of fatal unintentional drowning each year.[9] The effectiveness of drowning prevention interventions such as lifeguards, signage and public rescue equipment is yet to be proven in a river setting, though evidence exists in the coastal environment.[35]

There is a need for the drowning prevention sector and the aquatic industry to combat the perceptions and feelings among First Nations Peoples in Wagga Wagga and ensure public pools are culturally safe, in addition to presenting an extremely low risk of drowning. This may comprise training in culturally respectful service delivery, as has been evaluated in other sectors, such as education and health care.[36] Similarly supporting initiatives which address determinants of health such as cost and access will be important elements of improving First Nations Peoples' perceptions of aquatic facilities. Continuing to invest in employment initiatives which aim to enhance First Nations representation among pool staff, lifeguards, and swim instructors, as well as community first aid and cardiopulmonary resuscitation instructors, will also be an important facet of a holistic means of addressing these perceptions, improving water safety and reducing drowning risk among First Nations Peoples.[37]

5.4 | Strengths and limitations

There are several strengths associated with this study. To the best of our knowledge, this is the first study of its kind in Australia to use yarning circles as a research technique to explore water safety and drowning prevention belief and practices among First Nations Peoples. Secondly, this study was conducted in a regional area of New South Wales where drowning rates are known to be higher than major cities,[38] and in a town on the banks of one of the country's top 10 river drowning blackspots,[20] thus deriving valuable insights from communities where drowning prevention initiatives are most needed. Thirdly, this study purposively sampled, and collated insights, from four distinct groups of participants, all of whom have differing perspectives and experiences. Findings will help to shape more appropriate guidance on drowning prevention interventions and campaigns for these life stages. However, any findings from this study should be considered in light of several limitations. First, the information collected will only reflect the views of those involved and findings are only representative of those people and the context (Wagga Wagga) within which this study was conducted. As such, findings are not generalisable to other First Nations communities in other locations. Second, the interpretation and thematic coding of transcripts were conducted by two authors (J.W. and A.E.P.) with their own lived experiences and perspectives, reflecting First Nations and non-First Nations heritage, connection to Wiradjuri country and drowning prevention research experience. Had others undertaken thematic coding, results would likely differ based on others' lived experiences.

6 | CONCLUSION

Despite the high incidence of drowning among First Nations Peoples, particularly in regional areas, there is limited qualitative research on water safety knowledge and practices. Our yarning circles with First

Nations Peoples on Wiradjuri land in Wagga Wagga found strong links between oral histories, cultural practices and water safety. Preference for the river is driven by spiritual and environmental connections, but also historical exclusion and feelings of discomfort at the public pool. We recommend the aquatic and water safety sector engage in ongoing consultation with First Nations Peoples around the integration of stories and cultural practices into drowning prevention interventions, particularly those aimed at regional and remote communities and on the topic of river safety.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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