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'They have a really good way of getting it to the kids': evaluation of a child injury prevention programme in Walgett, New South Wales

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ABSTRACT

Background Aboriginal community-led programmes are likely to be most effective in prevention of injury, but more evaluation is needed. This article examined participating family and community stakeholder views of the Child Injury Prevention Partnership (CHIPP) programme delivered within an existing playgroup at the Walgett Aboriginal Medical Service.

Methods This codesigned, mixed-methods evaluation adopted a decolonising Indigenous methodological approach. Aboriginal staff members provided weekly reflections on implementation, and family participation data were documented. Parents/carers provided regular feedback and, along with community stakeholders, participated in postprogramme research yarning.

Results During 2021, playgroup sessions were facilitated by locally trained Aboriginal early childhood staff, who offered 2 hourly sessions twice a week. CHIPP implemented safety education for both adults and children through safety yarns and resources to take home focused on water, home and road safety. Parent/carer and stakeholder research yarns revealed six themes: CHIPP was feasible and culturally acceptable for families; Playgroup enabled supportive, holistic delivery of safety messages to adults and children; CHIPP provided information and resources to equip parents and carers to help teach safety at home; Approach to teaching infants and preschoolers safety was based on building confidence through fun, engaging, age-appropriate activities; Programme topics and content were relevant for families and COVID-19 impacted programme delivery but pivoted temporarily to remote delivery.

Conclusions The CHIPP programme was feasible, accessible, acceptable and demonstrated initial beneficial impact, despite implementation challenges during the COVID-19 pandemic, offering suggestions to inform other child injury prevention programmes in Aboriginal community-controlled settings.

BACKGROUND

For Aboriginal people, keeping children safe has been an enduring aspect of culture and community for many thousands of years. However, in Australia, Aboriginal children are over-represented in serious injury statistics.^{1,2} The causes of this disparity are complex. Colonisation and dispossession have led to the disruption of culture, family, knowledge systems and practices, and socioeconomic disadvantage and

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ The effectiveness of Aboriginal Community Controlled Organisations in providing culturally safe community-led interventions has shown promise in preventing child injuries.

WHAT THIS STUDY ADDS

⇒ The Child Injury Prevention Partnership programme, codesigned and implemented within an Aboriginal community playgroup, was feasible, accessible and acceptable for families and demonstrated short-term impacts. Future efforts should now focus on programme implementation in other Aboriginal early childhood services, with community involvement in any refinements required accordingly to local context such as an urban environment or other regional and remote settings.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ Future programme implementation in other Aboriginal early childhood services is recommended, with community involvement in any refinements required accordingly to local context such as an urban environment or other regional and remote delivery settings.

marginalisation are common for many Aboriginal people.³ Several social and environmental factors, including crowded housing, separation of families, low parental education, unemployment and living in a remote area, are associated with increased risk of child injury.² Aboriginal community-led interventions are likely to be the most effective means of preventing child injuries, particularly in remote areas.⁴ However, there is a scarcity of robustly evaluated child injury prevention programmes.^{5,6}

Walgett is a town in remote north-west NSW with an estimated population of 2145 people, of whom 43.5% identify as being Aboriginal and/or Torres Strait Islander (hereafter respectfully Aboriginal).⁷ The Child Injury Prevention Partnership (CHIPP), led by the Walgett Aboriginal Medical Service (WAMS) and research partners, was established to develop, deliver and evaluate a culturally safe injury prevention programme within an existing playgroup. WAMS has been delivering health



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CONTEXT	INPUTS	ACTIVITIES	OUTPUTS	SHORT TERM IMPACTS	MEDIUM-TERM IMPACTS	LONG-TERM OUTCOMES			
<p>Situation: Aboriginal families are entitled to access to culturally appropriate child injury prevention information and services.</p> <p>Many Aboriginal families in remote communities do not currently have access to such services or information. Aboriginal children experience high rates of unintentional injury, especially in remote areas.</p> <p>Guiding principles:</p> <ul style="list-style-type: none"> * Partnership model with community control * Incorporates Indigenous knowledge systems & strengths-based approach * Responsive to changes in local priorities around child safety, not limited to particular injury topics * Builds on and adheres to WAMS goals, philosophies and ways of working 	<ul style="list-style-type: none"> * TAPPC Funding: <ul style="list-style-type: none"> > Goonimoo staff wage contributions & operating costs > Training > Program resources > UNSW Project Officer * RMS community grant * Goonimoo playgroup: <ul style="list-style-type: none"> > skilled educators > existing relationships > established service > purpose-built centre * WAMS infrastructure * Indigenous knowledge systems about child safety, & ways of knowing, being & doing * WAMS, DEG & YN intellectual property (e.g. local knowledge and ways of working) * In-kind contributions of UNSW Research Fellow & Investigators * Expert advice (child injury, culture & language) * Existing evidence about Aboriginal child injury prevention 	<p>A1 Collate, adapt & create culturally appropriate injury prevention resources (songs, activities, videos, flyers, products)</p> <p>A2 Goonimoo staff training:</p> <ol style="list-style-type: none"> a) water safety b) swim instructor c) car restraint fitting d) Gamilaraay language & culture e) home safety f) positive parenting <p>A3 Iterative co-design of CHIPP program, including:</p> <ol style="list-style-type: none"> a) playgroups with CHIPP-enhanced activities** b) Safety displays regularly set up at Goonimoo (posters, displays, videos, slide shows) c) Goonimoo a drop-in centre for injury prevention advice & services (e.g. check child car seat) d) CHIPP event days (car seat days, campfire lunches) <p>A4 Local promotion of CHIPP</p> <p>A5 Injury advocacy & policy partnerships with organisations (council, local sporting organisations etc)</p>	<p>CHIPP pack produced with information & resources on injury prevention + positive parenting^{A1}</p> <p>Goonimoo staff^{A1} achieve qualifications (e.g. child restraint fitting & checking)^{A2}</p> <p>A1.2.3.4 Culturally safe injury prevention services & resources are accessible in Walgett: - playgroup activities - drop-in centre - engaging displays - event days</p> <p>A1.2.3.4 Walgett families have increased opportunities to connect with local language & culture</p> <p>A1.2.3.4 CHIPP event days are held</p> <p>A1.2.3.4 Walgett families have access to injury prevention services</p> <p>A5 Policy goals discussed with stakeholders</p>	<p>A1.2 Goonimoo staff^{A1} have ongoing access to locally appropriate child injury prevention information & resources</p> <p>A1.2 Increased knowledge, skills & confidence of Goonimoo staff^{A1} in teaching child injury prevention, safety & positive parenting</p> <p>A1.2.3.4 Families attend and engage in CHIPP activities, receiving culturally safe injury prevention & positive parenting messages</p> <p>A1.2.3.4 Increased awareness of child injury</p> <p>A1.3 Families reconnect with existing cultural knowledge about child safety & parenting. Families have positive experiences with injury prevention messages</p> <p>A3.4 Broad community participation in CHIPP event days</p> <p>A5 Stakeholders work together to improve policies or environments</p>	<p>A1.2.3.4 Goonimoo established as an ongoing, sustainable child safety resource centre for local families</p> <p>A1.2.3.4 Families have increased knowledge, motivation, confidence & skills about child injury prevention & management</p> <p>A2f.3 Families have increased confidence in their parenting skills</p> <p>A1.2.3.4 Increased community-wide awareness of injury prevention</p> <p>A5 Organisations adopt injury prevention measures</p> <p>A5 Safer policies & environments</p>	<p>A1.2.3.4 WAMS is a centre of excellence in Aboriginal child injury prevention, positioned to lead ongoing partnerships in this space</p> <p>A1.2.3.4 CHIPP contributes to evidence about program co-design & injury prevention</p> <p>A1.3 CHIPP a replicable, scalable program</p> <p>A1.2.3.4.5 Families adopt and disseminate child injury prevention strategies</p> <p>A1.2.3.4.5 Improved safety, health & wellbeing of children & families</p> <p>A5 Improved community-wide safety standards and environments</p> <p>A1.2.3.4.5 Decrease in injury rates</p>			
							Organisation (WAMS)		
							Families (Goonimoo)		
							Community-level		
<p>Assumptions: providing opportunities for families to engage with injury prevention information and resources in a strengths-based way in a culturally safe space will make people more likely to be receptive to safety messages.</p>				<p>External Factors: COVID-19, group size and social distancing restrictions, weather</p>					

Figure 1 CHIPP programme logic. CHIPP, Child Injury Prevention Partnership; DEG, Dharriwaa Elders Group; WAMS, Walgett Aboriginal Medical Service.

services in Walgett since 1986 and for all; 40% of clients are non-Aboriginal.⁸ This project builds on a partnership with the Dharriwaa Elders Group (DEG), ‘Yuwaya Ngarra-li’ (vision).⁹

Mobile children’s services offer Aboriginal families a safe and supportive community environment to meet together and give children the opportunity to engage in play-based early learning activities, with access to support for parents and carers.¹⁰ The model is used to provide families with young children continuous parenting and early childhood development support.¹¹ The CHIPP programme was led and delivered through WAMS’ existing playgroup, Goonimoo Mobile Children’s Services that has been providing a local mobile Children’s service since the mid-1980s to Aboriginal and non-Aboriginal children aged 0–5 years. Goonimoo staff are qualified early childhood educators and partners with families to provide a nurturing play-based environment enhancing each child’s social, emotional, physical, intellectual and creative development.

The programme implementation and evaluation was collaboratively developed through formative research and codesign processes by Goonimoo educators, Aboriginal and non-Aboriginal researchers; patients and/or the public were involved in the design and conduct of this research.¹² CHIPP aimed to sustainably build the local injury prevention capacity of Aboriginal staff and organisations in Walgett, to develop and implement a culturally safe, coproduced, community-led injury prevention programme. Other aims were to develop a programme manual, to encourage norms of safety in families and the broader community. The formative codesign process included the development of a programme logic model (figure 1) and programme manuals to guide implementation and provide evidence-based

information to families in an engaging and culturally relevant way.¹² Building on the existing partnership,⁹ community engagement led by Goonimoo staff included information sessions and meetings with the researchers and DEG that encompassed all research and ethics processes and gave opportunity for the community to understand the project and guide its development.

Process evaluation allows for an in-depth exploration of programme delivery and how the programme context, including community priorities, programme beneficiaries and the mechanisms or pathways through which the programme may affect outcomes.¹³ Comprehensive engagement with Aboriginal communities, and adequate resourcing and support to community delivery can improve the likelihood of programme implementation success and impact.^{14 15} Impact evaluation measures the immediate effect of the programme, aligned with programme objectives.¹⁶ This evaluation aimed to examine programme implementation and initial impact, to explore whether the programme was delivered as intended and to understand participating family and community stakeholder views of the programme.

METHODS
Design

The development of CHIPP and its evaluation involved a strengths-based approach and was informed by Indigenous Standpoint Theory and Socioecological Theory, complementary philosophies that guide the programme design, evaluation framework and research methods.^{17–19} The programme activities comprised the iterative development of codesigned resources, early childhood staff training and community events (figure 1).

Taking a decolonising approach challenges structural and power differentials by ensuring governance by Aboriginal organisations and privileging the perspectives and cultural strengths of Aboriginal ways of doing research and building knowledge.²⁰ Decolonising research methods developed by Indigenous researchers to improve cultural safety and address power imbalance inherent in conventional research processes were used in a relaxed, conversational, semistructured interview method, ‘research yarning’.^{21 22} This codesigned, mixed-methods evaluation used research yarning methods plus participant feedback and service use data.

Participants

Both participant groups were recruited using targeted and snowball sampling approaches.²³ Parents/carers of young Aboriginal children who used Aboriginal services including WAMS or Goonimoo playgroup were invited verbally by staff to participate in yarning research at the end of the programme. Additionally, community stakeholders were invited verbally or via email by staff and/or the researchers to participate in research yarns, including Elders, WAMS staff and Early Childhood providers who were aware of the programme and interested in contributing their perspectives.

Data collection

Research staff worked alongside Goonimoo staff to collect data during programme implementation. Participant records already kept by Goonimoo were used, including deidentified demographic information and attendance at each group session (including contextual factors affecting delivery). Staff also engaged parents/carers in casual yarns during playgroups about the programme, including things they liked and ideas for improvement, recorded in deidentified field notes alongside end of each session reflections.

Research yarning with parents/carers was conducted by an Aboriginal researcher (NP-W) in December 2021. NP-W and a non-Aboriginal researcher (RMA) conducted community stakeholder research yarns (four Aboriginal; three non-Aboriginal) in April–August 2022. Parents/carers were asked about their views on the programme and about any uptake or implementation of child safety measures at home. Community stakeholders were asked to identify factors aiding implementation and potential barriers to scale up and community-level outcomes. All yarns were conducted by telephone or video conferencing software.²²

Data analysis

Descriptive analyses of quantitative service use and participant satisfaction data were conducted. Content analysis was conducted on the staff reflections data. Research yarns were audio recorded, transcribed and deidentified. Data were analysed thematically by AT and RMA using both inductive and deductive approaches²³; deductive analyses were underpinned by the theories that informed the programme. In keeping with the codesign approach, data were analysed collaboratively with local Aboriginal staff who had knowledge and experience in the community context and participating families to ensure reliability and validity. Data were collected sequentially and converged for analysis together.²³

RESULTS

Programme implementation

The programme commenced in February 2020, with 1 month of delivery before COVID-19 restrictions that led to the collective

decision to pause the programme until 2021. During 2021, Walgett experienced further COVID-19 restrictions that necessitated an 8-week virtual delivery, and major flooding events also impacted programme delivery. The programme played an integral part in promoting safety messages and activities to support water safety around flooding. During school terms, playgroup sessions took place three times a week in 2-hour sessions that incorporated three components of safety education. Despite interruptions, all programme activities and outputs within the programme logic model were achieved, including enabling Goonimoo staff to achieve training and qualifications such as swim instruction and child restraint fitting. Both parents/carers and children participated in safety yarns, and take-home resources were provided each week. CHIPP embedded Aboriginal knowledge within lessons about water safety, road safety and home safety; these three topics formed the structure of the programme manuals that contained culturally appropriate injury prevention resources. Goonimoo staff received training and qualifications and provided materials and resources for families including safety tools such as bike helmets, information brochures, community safety days, swimming lessons and professional child restraint car seat fitting. Social media was also used to provide safety messages that were shared with the broader Walgett community.

Programme participants

Six primary parents/carers, five secondary parents/carers and nine children attended the playgroup session regularly during 2021. Primary carers were mothers, aged between 16 and 34 years (median=26 years), half of whom identified as Aboriginal, and half of whom were single parents. Children attending playgroup were aged 0–3 years. In addition to enrolled families, 10 additional families typically comprising 1 adult and 2 or 3 children attended casually. There were 8 weeks of necessitated virtual delivery where the programme supported families by contactless delivery of weekly child home activity packs with telephone calls for support. This COVID-19-related remote support reached approximately 30 other families, in addition to the enrolled families and those who attended on an ad hoc basis.

18 playgroup sessions were delivered in 2021, half in term 2 (July–September). This was lower than anticipated due to flooding and COVID-19 restrictions. Approximately four parents/carers and their children attended each playgroup session, ranging from two to eight children attending each session (table 1).

Research yarning themes

Research yarns took place with six parents/carers and seven community stakeholders. Six themes were identified that were supported by daily staff reflections data and participant quotes (box 1).

Table 1 Number of sessions and number of children and carers attending each play group session

Term	No. of sessions per term	No. of children per session (median, range)	No. of carers per session (median, range)
Term 1	3	3 (3–6)	3 (3–6)
Term 2	9	5 (2–8)	4 (2–5)
Term 3	6	5 (3–8)	3 (2–7)
All terms combined	18	4 (2–8)	4 (2–7)

Box 1 Qualitative themes and supporting quotes

Theme 1: The program was feasible and culturally acceptable for families

'A program like this is really important, a program which is based in the Aboriginal Medical service is really important because when AMS is a long standing, 35-year organisation that knows the community that is, you know. So you know a program like this which actually respects the leadership of Community, Aboriginal community, controlled health organisations like WAMS will deliver' Stakeholder 5

Well, yeah, you think injury is just them falling over and hurting themselves. But they—they can injure themselves in a lot of different ways. Like, you know, drowning, or almost drowning, or burning themselves, or, you know, getting into something that they shouldn't be getting into.' Stakeholder 2

'And I think just by, for example, me getting educated around the swimming awareness, like that's not just going to be passed on to the people that done the training, it's going to be passed on generation after generation, and after generation, you know, I think that's why it's mostly important to be taught by Aboriginal people' Stakeholder 1

'I think that it's helped the Goonimoo team provide a little bit more safety information and—and injury prevention information to young parents than they had previously. So it's strengthened their program'. Stakeholder 4

'Having information because we live so far away from the city, it's been customised out here to provides, that accommodates people's lifestyles, it accommodates people's social and economic situation. Um, and having resources available at the end of such events is a bonus for people who are lower socioeconomic families'. Stakeholder 6

'It's been a pleasure doing the program and can't wait 'til next year to do some more. My daughter, like, she—she liked it there; she loved it there, it was all interesting. Like all the new toys, like, you know, like, wasn't like all broken and that. Like, it's all new and good' Participant 1

'Free helmet for (child name), when he, um, was learning how to ride, and that was really good, he's always like, 'Mum, can I put my helmet on? Can I put my helmet on? Yeah, so it was really, like it was good, you sort of like drilled it in, like you need to wear your helmet' Participant 3

'There's absolutely nothing I would change about it. It's great. It's perfect. It gets everyone involved. It—you don't feel bad about asking questions' Participant 5.

Theme 2: The Playgroup enabled supportive, holistic delivery of safety messages to adults and children

'It's good for the kids and even for the adults, like they have stuff for us as well' Participant 1

'And then you think, oh, you know, like, oh, a little three-year-old wouldn't know that at all. And I suppose I was just a bit more aware of, like making sure, um, like I was on the outside of the road rather than (child) riding on the outside of the road' Participant 3

'He can point to all of them and say, 'We don't touch medicine. We don't go on the road. Don't go in the water. All of that stuff' Participant 2

Theme 3. CHIPP provided information and resources to equip parent/carers to be a part of safety teachings at home

Continued

Box 1 Continued

'So I'll sit down and read to him and teach him to be safe around the water as well. Um, so it was very informative. So we'd, um, learn about just really things about, like, first aid and, um, different safety measures around the home, and swimming as well. And different CPR methods, and we'd also take little booklets home to actually keep in the cupboards, um, to keep on hand, um, keep things on the fridge; magnets and stuff' Participant 5

'Something that just sort of gets way laid all the time and then when it happens it's like, oh, we could have done that to prevent that from happening, if you know what I mean?' Participant 3

'They are quite good with anything you need help with or, anything you're unsure of. Very very informative. So yeah, I was so impressed and enthusiastic' Participant 5

'and so we—we already know when you're at home... Because they showed us, yeah, the proper way. We might think that we know everything but then, you know, you can always learn something' Participant 1

'what I liked about it is that it was more hands on, the program was more hands on delivered. Not just a program where you sit in front of a screen or whatever, and I think that works better for our Aboriginal families' Stakeholder 1

Theme 4. The approach to teaching infants and preschoolers safety needs to be considered, building confidence and having fun engaging activities to assist child safety

'They have a really good way of getting it to the kids, like my son now is really good at knowing not to go near cars and not allowed in the water and all of that sort of stuff. They have a good way of getting it across to them' Participant 3

'I did a little of the pool, I think I did one—one or two days at the pool doing, um, like the Humpty Dumpty, he sat on the wall—that was fun. I really loved the swimming program' Participant 3

'You've got to be there watching them at all times really. Because you don't know what's gonna happen' Participant 1

'Like how to teach them, how to get into the water properly and all of that sort of stuff, whereas I wouldn't have thought of how to teach him to get in and out. You sort of think to just teach them how to swim' Participant 2

'really good, got the kids out in the water and got them a little bit more confident' Participant 3

Theme 5. The program topics and content were relevant for families

'Just giving the parents the knowledge, Yeah. Like all round knowledge about all safety. Like we see so many kids that, you know, like they're standing up in the back of the—just in the back of the car instead of in a car seat.' Participant 3

Water safety

'Ah, mostly the water safety, like I've—I haven't had much to do with water. All different sun-safe things as well. Um, when we were doing sun, um—not sun safe, swimming, we got a swimming pack for the kids. So we got swimming, um, top, a hat, sunscreen, and we also got a thing to keep kids safe in the pool, kids' safety near the rivers. Because you can even drown in just a little—little tiny pool. So my kids being very, um, full on and over—over-active and that, it sort of made me think, well

Continued

Box 1 Continued

no, I can't do that anymore. I can't—I can't leave that sort of water' Participant 5

'Like how important it is that they know what to do when they fall in. Because you sort of—sort of think, oh, they won't fall in. You know, I'm watching him, he won't fall in. But if he falls in and doesn't panic and knows how to get to the edge' Participant 2

Road safety

'Yeah. Yeah. I reckon that was, um—I probably got the most out of that one [car seat safety]... We're always in the car, you know, so that was a good help and that' Participant 1

'Ah, like with our little one, we got the car seats in properly and everything. I actually liked the whole thing because I think road safety is really important for kids and I don't think it's spread wide enough' Participant 4

'Like the road safety, he won't go on the road, he just walks on the footpath next to me' Participant 2

Home Safety 'Especially the power, like I loved the—the power ones, because (child's name), yeah, terrible for power points. And the fridge—and the fridge locks, they're the best' Participant 3

'Like out in the backyard and stuff, if you've got an open gate, you know, make sure you shut the gates and things like that' Participant 2

'No, there's not many footpaths and if they, if there is, they're not—they're not very good to ride on. And another, probably another big thing around here too is, um, dogs, because there's a lot of dogs that just roam around. So maybe something on safety about not touching things, like dogs outside of your house and stuff' Participant 3

'We painted like the animals and that. Like, made some kangaroos and everything. I try and encourage people all the time to go. You know, like, they don't do nothing out there. They're only at home with their kids' Participant 1

'I'd like for more kids to come. We only probably have four or five that regularly come. More kids, I reckon it would be better because they could do more games, more games and stuff like that. With only two kids they get pretty uninterested pretty quick' Participant 2

Theme 6. COVID-19 impacted program delivery but adaption to remote delivery was feasible

'So designing something in a pandemic is pretty awesome as well, I suppose'. Stakeholder 1

'Um, but it didn't just stop when COVID had stopped either—stopped us from going in either. We'd get, um, monthly packs with safety things in it for the children. So it was contactless. Like, we didn't—he didn't have to come near us, and, um, we got all the information that we needed' Participant 5

'Yes, it was good and there was little stuff in there for him and obviously because you couldn't see anyone, you couldn't go anywhere, it was – it was just something. What would be cool, what I—probably would have been cool if there was maybe, um, you know, a couple of video clips to actually show the kids. Because only you tell them and tell them, but like a video clip is always good because then they can see what you're talking about. Like either at home or if they just did just like, you know, a little 10 minute movie or something.' Participant 3

Theme 1: the programme was feasible and culturally acceptable for families

The playgroup situated within a community-controlled health service provided a strong supporting foundation for educators and a conducive environment to establish, develop and deliver an Aboriginal community-led programme culturally safe injury prevention programme. Educators, also being local Aboriginal community members, contributed to the success of the programme that enabled the codesign to be culturally inclusive, realistic and that met their needs in a respectful manner. For educators, being a part of the project from the initial yarning circles to the end of the project meant experiencing increased injury knowledge and education. Learning and passing on knowledge was regarded as a fundamental aspect of the programme by stakeholders. Feedback suggested that the programme implementation through Goonimoo was a strength for families.

Participants and staff spoke positively about CHIPP as an enjoyable, relevant programme, a programme that was feasibly structured to meet families' needs, being hands-on, practical and educational. This was complemented with the resources and demonstrations to reinforce information provided around the injury prevention topics for optimal support and understanding. The programme also enabled resources to be tailored and available in this remote setting.

Theme 2: the playgroup enabled supportive, holistic delivery of safety messages to adults and children

Staff reflections revealed implementation of the safety messages during the sessions and evidence of parent/carer learning. It was also evident throughout staff reflections that parents were actively engaged in the programme, particularly through increased supervision of children and involvement with activities. The playgroup provided structured and positive learning environments for parents/carers and children to increase their skills and confidence, and to develop valuable social and family support networks. Through resource and message delivery, Aboriginal educators ensured that information met the needs of the playgroup participants. It was apparent that both parent/carers and young children gained knowledge of safety messages relevant to their homes and communities.

Theme 3: CHIPP provided information and resources to equip parents/carers to be a part of safety teachings at home

Participants described how resources were being used at home, such as messages placed on the fridge and identifying ways to make safety changes within the home. One parent described how the programme engaged the adults to learn new things about caring for their young children. Educator reflections also demonstrated the importance of the flexible (iterative) way in which codesign approaches were used in programme design. Building on those experiences led parents/carers to be more enthusiastic and reciprocating of the information they received. The programme provided parents/carers with accessible tools and resources. Educators also described how the information and resources delivered were practical and effective.

Theme 4: the approach to teaching infants and preschoolers safety needs to be considered, building confidence and having fun engaging activities to assist child safety

This theme demonstrated the important role of early childhood educators in providing knowledge and education. Families reflected on how the programme was delivered in an engaging way through teaching, discussions and visual message

communication that they considered to be effective. They also reflected on how using play, music and movement to teach water safety made learning enjoyable.

It was evident that parent/carers increased knowledge of how water safety is more than teaching children how to swim. Beyond swimming proficiency, parents/carers spoke about how water safety involves teaching children how to get in and out of the water, strategies in the event of a fall and confidence. One participant described how the programme helped her child to overcome his fear of the water to engage in the activities and allow him to become more confident.

Theme 5: the programme topics and content were relevant for families

CHIPP topics were delivered across three separate programme areas that provided relevant content such as educational resources and demonstrations about water, road and home safety. CHIPP also partnered with several organisations to develop culturally safe programme materials tailored to meet the needs of families with Aboriginal children in Walgett.

Water safety

Water safety skills were identified in initial community consultations, including the need for more access and opportunities to lessons and water awareness activities for young children. Swimming lessons and water familiarisation and education were embedded into the playgroup, such as promoting safety messages to prevent drowning, actively supervising children around water and restricting children's access to water. There was also evidence that the programme enabled parent/carers to identify and modify home water hazards.

Road safety

Integrating road safety programmes and awareness into the existing playgroup was an effective method of providing support that met the needs of the community and increased knowledge awareness for road, pedestrian and child restraint safety.

Home safety

Keeping Aboriginal children safe in their homes was seen as very important. While this is related to factors that cannot be easily changed, families can be supported to help prevent injuries. Integrating home safety activities helped to raise awareness about preventing accidents and injuries. Resources and information were provided to address specific risks that families identified. One parent/carer also identified broader neighbourhood and community level challenges relating to footpaths and dogs and suggested an additional programme focus on safety beyond the home. The relevance of the programme's cultural focus and the embedding of activities in the cultural and community context was also clear. A participant highlighted that larger numbers of participants may have provided more opportunities for group-focused activities.

Theme 6: COVID-19 impacted programme delivery but adaption to remote delivery was feasible

The most significant programme challenge for the was the COVID-19 pandemic. When face-to-face programme delivery could not occur, the WAMS and research teams kept regular contact and used this time to train Goonimoo staff and to continue programme design. The content delivery was then adapted to be provided via social media posts and through home safety activity and resources via home learning packs, which was

appreciated by families, with additional suggestions for adapted materials.

DISCUSSION

This evaluation demonstrated that the targeted development of a culturally safe, community-led child injury prevention programme improved access to appropriate resources and information. Overall, the CHIPP programme was successfully implemented, as evident in the achievement of activities and outputs in the logic model. Qualitative findings also indicate the achievement of short-term impacts in increasing the injury prevention skills and knowledge of local staff and improved parent/carer awareness about child injury prevention, again aligned to the programme logic components. Families received and had positive experiences with, injury prevention messages, reconnecting with existing cultural knowledge about child safety and parenting.

These findings demonstrate the feasibility and acceptability of the programme and highlight that collaborating with communities in an authentic way is integral to success.²⁴ Our approach provided the structure for implementing collaborative programme design with Aboriginal communities, specifically in relation to reducing the risks of unintentional injury among Aboriginal children. There is a clear need for community-based injury prevention programmes that are designed and delivered specifically for Aboriginal people.^{6 25 26} Very few culturally acceptable injury prevention programmes have been developed or evaluated, so the CHIPP programme evaluation makes an important contribution to existing literature.

We consider that the programme success was largely driven by three key elements. First, the programme was embedded in an existing Aboriginal community-controlled health service with strong local Aboriginal community engagement and holistic health service delivery. This programme context promoted community-driven design and implementation, as well as promoting a holistic approach to implementing child injury prevention across the organisation and community. The role of community-controlled health services has been comprehensively documented as a setting where culture has a strong presence in programme delivery and addressing structural determinants of health.²⁷ Second, integrating knowledge and theories from early childhood education pedagogies, health literacy and public health created a unique, accessible evidence-based and holistic education programme for parents/carers and children. Finally, the durability and flexibility of Aboriginal community-controlled organisations to pivot and adapt to changing circumstances and community needs was evidenced by the successful running of the programme throughout challenges caused by weather challenges and COVID-19. These two points highlight the importance of the community-controlled sector in delivering holistic support in challenging circumstances.²⁸

The CHIPP programme and evaluation used Indigenous research methods, specifically Aboriginal ontology of knowing, doing and being and working with the community to develop the project.²⁹ This process is recognised as an effective way to make early learning attractive and accessible to Aboriginal families.³⁰ The codesign process was led by Aboriginal researchers working with Aboriginal educators and also incorporated the determinants of health for Aboriginal people.¹²

The early childhood education setting was found to be a relevant setting for injury prevention where early childhood educators appreciated and understood community needs and priorities around injury prevention. Children are primed for learning during this age, and knowledge gained can extend to

both children and parents/carers having shared knowledge and effective early childhood programme delivery occurs through play-based experiences.³¹ As well, Aboriginal educators are the preferred delivery agents for Aboriginal children's early education,³⁰ and this was evident in the thematic finding of the programme's feasibility and acceptability.

Playgroups are a setting where families come together to feel supported and have opportunities to learn, grow and bond together.³² This environment provides opportunities for educators to facilitate and share information with families that holistically supports safety through providing messages and information on social media platforms. The findings from this evaluation echo a previous study that developed and piloted an early parenting education group programme in another remote area in NSW, finding high parent satisfaction with the programme and increases in knowledge of child development and parenting skills, and increased connection with other families.³³

The educators played a critical role in the value parents and children derived from a supported playgroup by creating a setting that is accepting of and responsive to the needs of families, the importance of which has been noted previously.^{32,34} Programme resources and manuals that were developed with the Goonimoo playgroup focused on three topics of water, road and home safety, and the thematic findings reflected the perceived importance of these topics for participating families. These resources and activities are practical solutions to inequalities experienced by Aboriginal people in these three key areas of injury prevention, particularly in remote areas.^{2,35,36}

Supported playgroups aim to encourage stronger parenting skills and family support to enhance the parent-child relationship, increase parent/carer understanding, skill and confidence in child development, and provide opportunities to build social support networks.³² Parent/carers reported the development of new relationships and friendships with other families, linked with attendance and engagement identified in the programme data. A previous study found that parenting groups can be a source of social capital for Aboriginal and non-Aboriginal mothers of young children.³⁷ Another study found that social opportunities and benefits of playgroups can extend beyond this setting, such as enhanced home learning environments.³⁸

The findings from this study have established that the CHIPP programme is holistic, supportive, feasible and acceptable for Aboriginal families. However, we were unable to examine quantitative outcomes such as changes in family knowledge or behaviours due to small participant numbers. Other limitations include the small sample sizes in the qualitative samples that limit generalisability and external validity. Therefore, future efforts should focus on programme implementation and study replication in other Aboriginal early childhood services that could include the exploration of quantitative outcomes such as family knowledge or behaviours. Community involvement in any programme and evaluation refinements required accordingly to local context such as an urban environment or other regional and remote settings is essential.

CONCLUSIONS

The feasibility, accessibility and acceptability of the CHIPP programme was demonstrated, despite implementation challenges due to the COVID-19 pandemic. The programme and evaluation approach provided a structure for implementing collaborative programme design with Aboriginal communities. Integrating Indigenous knowledge and theories from early childhood education, health literacy and public health created a

unique and accessible evidence-based education programme. The durability and flexibility of Aboriginal Community Controlled Organisations to pivot and adapt to changing circumstances and community needs was highlighted by the successful running of the programme throughout external challenges. The programme delivered culturally safe injury prevention, achieving programme logic activities, outputs and short-term impacts including staff training and qualifications by addressing broad community needs, genuinely recognising broader determinants of health and supporting strategies.

Acknowledgements This project took place on Aboriginal Lands of the Gamilaraay and Yuwaalaraay Nations. We pay our respects to Elders of these lands—past, present and emerging—and extend that respect to all Aboriginal people, including children and all those who work to keep them safe and well.

Contributors The authors included Aboriginal and non-Aboriginal researchers and community-based practitioners. AT (formal analysis, writing – original draft) is a Gamilaraay woman and a WAMS manager. NP-W (methodology) is a Kooma woman and academic. CC is a Gamilaraay woman, the CEO of WAMS (validation). KC is a senior Aboriginal (Murrwarri) researcher and anthropologist (conceptualisation, writing, review and editing). RMa (supervision), MA (conceptualisation, MP (project administration), SC (project administration), RMC (methodology) and RQI (conceptualisation, funding acquisition, guarantor) are non-Indigenous researchers and policy managers experienced in working with Aboriginal peoples and communities who were all additionally involved in writing, review and editing.

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Patient consent for publication Consent obtained directly from patient(s).

Ethics approval This study involves human participants and was approved by Aboriginal Health & Medical Research Council ethics committee (1494/19), (1580/19). Participants gave informed consent to participate in the study before taking part.

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REFERENCES

- 1 Australian institute of health and welfare and welfare, trends in injury deaths, Australia, 1999–00 to 2016–17. Canberra: AIHW, 2019.
- 2 Möller H, Falster K, Ivers R, et al. High rates of hospitalised burn injury in Indigenous children living in remote areas: a population data linkage study. *Aust N Z J Public Health* 2018;42:108–9.
- 3 Griffiths K, Coleman C, Lee V, et al. How colonisation determines social justice and Indigenous health—a review of the literature. *J Pop Research* 2016;33:9–30.
- 4 Keay L, Hunter K, Ralph M, et al. Overcoming barriers to use of child car seats in an urban Aboriginal community-formative evaluation of a program for Aboriginal Community Controlled Health Services. *Pilot Feasibility Stud* 2018;4:161.
- 5 Hunter K, Keay L, Clapham K, et al. Buckle up safely (shoalhaven): a process and impact evaluation of a pragmatic, multifaceted preschool-based pilot program

- to increase correct use of age-appropriate child restraints. *Traffic Inj Prev* 2014;15:483–90.
- 6 Clapham K, Khavarpour F, Bolt R, *et al.* Child injury in an urban Australian indigenous community: the safe koori kids intervention. *Inj Prev* 2010;16:A138.
 - 7 Australian Bureau of Statistics. Census of population and housing: characteristics of aboriginal and torres strait islander australians, 2021. 2022. Available: <https://www.abs.gov.au/statistics/people/aboriginal-and-torres-strait-islander-peoples/census-population-and-housing-counts-aboriginal-and-torres-strait-islander-australians/latest-release>
 - 8 Walgett Aboriginal Medical Service (WAMS). Walgett aboriginal medical service (wams) about us. 2025 Available: <https://walgettams.com.au/about-us>
 - 9 McCausland R, Spencer W, MacGillivray P, *et al.* CommUNITY-Led development: A partnership to realize Aboriginal Elders' vision for change. *Community Dev (Columb)* 2021;52:573–91.
 - 10 Plowman K. A journey into mobile children's services, in paper presented at the mobile children's service association conference. 2008.
 - 11 Wise S. *Improving the early life outcomes of indigenous children: implementing early childhood development at the local level closing gap clear*. Canberra: Australian Institute of Health and Welfare/Australian Institute of Family Studies, 2013.
 - 12 Pollard-Wharton N. *Is it really co-design?-Investigating collaborative research in the design and implementation of aboriginal public health programs*. UNSW Sydney, 2024.
 - 13 Moore GF, Audrey S, Barker M, *et al.* Process evaluation of complex interventions: Medical Research Council guidance. *BMJ* 2015;350:h1258.
 - 14 Macniven R, Coombes J, Wilson R, *et al.* Understanding implementation factors and participant experiences of a cluster randomised controlled trial to prevent falls among older Aboriginal people: a process evaluation protocol. *Inj Prev* 2021.:injuryprev-2020-043980.
 - 15 Cullen P, Chevalier A, Hunter K, *et al.* 'The program was the solution to the problem': Process evaluation of a multi-site driver licensing program in remote communities. *Journal of Transport & Health* 2017;4:81–9.
 - 16 Bauman A, Nutbeam D. *Evaluation in a nutshell: a practical guide to the evaluation of health promotion programs* 2nd. Sydney: McGraw-Hill, 2014.
 - 17 Smith LT. *Decolonising methodologies: research and indigenous peoples*. London: Zed Books, 1999.
 - 18 Funnell SC, Rogers PJ. *Purposeful program theory: effective use of theories of change and logic models*. John Wiley & Sons, 2011.
 - 19 Foley D. Indigenous Standpoint Theory: An Acceptable Academic Research Process for Indigenous Academics. *The International Journal of the Humanities: Annual Review* 2007;3:25–36.
 - 20 Laycock AF, *et al.* Researching Indigenous health: A practical guide for researchers. 2011.
 - 21 Bessarab D, Ng'andu B. Yarning About Yarning as a Legitimate Method in Indigenous Research. *IJICIS* 2010;3:37–50.
 - 22 Cooms S, Leroy-Dyer S, Muurlink O. The rise of virtual yarning: An Indigenist research method. *Qual Res* 2025;25:168–88.
 - 23 Creswell JW. *Research design: qualitative, quantitative, and mixed methods approaches* 4th. Thousand Oaks: SAGE Publications, 2014.
 - 24 Farah Nasir B, Brennan-Olsen S, Gill NS, *et al.* A community-led design for an Indigenous Model of Mental Health Care for Indigenous people with depressive disorders. *Aust N Z J Public Health* 2021;45:330–7.
 - 25 Clapham K, *et al.* Active and Safe: Preventing Unintentional Injury Towards Aboriginal Children and Young People in NSW. *Guidelines for Policy and Practice* 2019.
 - 26 Clapham K, Bennett-Brook K, Hunter K. The role of Aboriginal family workers in delivering a child safety-focused home visiting program for Aboriginal families in an urban region of New South Wales. *Health Promot J Austr* 2018;29:173–82.
 - 27 Pearson O, Schwartzkopff K, Dawson A, *et al.* Aboriginal community controlled health organisations address health equity through action on the social determinants of health of Aboriginal and Torres Strait Islander peoples in Australia. *BMC Public Health* 2020;20:1859.
 - 28 McCalman J, Longbottom M, Fagan S, *et al.* Leading with local solutions to keep Yarrabah safe: a grounded theory study of an Aboriginal community-controlled health organisation's response to COVID-19. *BMC Health Serv Res* 2021;21:732.
 - 29 Martin K, Mirraoopa B. Ways of knowing, being and doing: A theoretical framework and methods for indigenous and indigenist re-search. *Journal of Australian Studies* 2003;27:203–14.
 - 30 Kitson R, Bowes J. Incorporating Indigenous Ways of Knowing in Early Education for Indigenous Children. *Australasian Journal of Early Childhood* 2010;35:81–9.
 - 31 Bubikova-Moan J, Næss Hjetland H, Wollscheid S. ECE teachers' views on play-based learning: a systematic review. *European Early Childhood Education Research Journal* 2019;27:776–800.
 - 32 Commerford J RE. Supported playgroups for parents and children: The evidence for their benefits. *Fam Matters* 2017.
 - 33 Grace R, Bowes J, McKay-Tempest J, *et al.* Early Parenting Education to Strengthen Aboriginal Parents in a Remote Area: The Development and Piloting of a Group Programme. *Children Australia* 2016;41:249–57.
 - 34 Targowska A, Teather S, Guilfoyle A. Optimising Children's Readiness to Learn through Mediating Social Disadvantage: Exploring Models of Best Practice. *Australasian Journal of Early Childhood* 2015;40:12–9.
 - 35 Pidgeon S NL. *Drowning deaths among aboriginal and torres strait islander people: a 10-year analysis 2008/09 to 2017/18*. Australia: Sydney: Royal Life Saving Society, 2020.
 - 36 Mason HM, Leggat PA, Voaklander D, *et al.* Road traffic fatalities in rural and remote Australia from 2006 to 2017: The need for targeted action. *Aust J Rural Health* 2022;30:252–63.
 - 37 Shulver WK. *Parenting groups as sources of social capital: their pattern of use and outcomes for aboriginal and non-aboriginal mothers of young children*. Flinders University of South Australia, 2011.
 - 38 Williams KE, Berthelsen D, Viviani M, *et al.* Participation of Australian Aboriginal and Torres Strait Islander families in a parent support programme: longitudinal associations between playgroup attendance and child, parent and community outcomes. *Child Care Health Dev* 2017;43:441–50.