



## RESEARCH ARTICLE

# Connecting and reconnecting to a community, with a sense of belonging – Exploring Aboriginal Elders' perspectives of engaging in a physical activity program

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## Abstract

**Issue addressed:** Culturally appropriate physical activity (PA) programs have values and principles that respect local community culture and knowledge. However, in Western Australia (WA) there were no opportunities for older Aboriginal peoples to engage in a culturally appropriate PA program. The study objective was to explore how engaging in a culturally appropriate PA program impacted on the lived experiences of Aboriginal Elders.

**Methods:** A qualitative exploratory study was conducted using an Indigenous methodology. Participants were Aboriginal Elders in Noongar Country in WA. Two groups, engaged in the Ironbark program, which consisted of weekly exercise and a yarning circle. The program was developed in NSW specifically for older Aboriginal and Torres Strait peoples and adapted for use in WA. Semi-structured interviews utilising a yarning approach were facilitated by a Noongar Wadjuk researcher. Inductive thematic analysis was undertaken.

**Results:** Nineteen Elders were interviewed. The overarching theme was that participation led to *connecting and reconnecting to community with a sense of belonging*. Elders affirmed the program as being appropriate and comfortable. They described

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experiences that were grouped into three main themes of *Positive mental and emotional changes, Physical improvements and Social benefits.*

**Conclusions:** Aboriginal Elders valued the opportunity to engage in a culturally appropriate PA program. Benefits were appreciated as holistic in nature, with Elders seeing improvements in their mental, physical and emotional health.

**So what?:** Increasing access to culturally appropriate, decolonised PA programs is a fundamental health promotion approach for working with older Aboriginal and Torres Strait Islander peoples.

## 1 | INTRODUCTION

Physical activity (PA) is known to improve older adults' health and overall well-being while also reducing the risks of physical and mental illness.<sup>1,2</sup> However, older people are less likely to be physically active than any other age group.<sup>3-6</sup> Older Aboriginal and Torres Strait Islander peoples do not regularly engage in mainstream PA programs because the features and characteristics of these programs do not attract them and programs rarely address cultural safety, security and competencies.<sup>7,8</sup> Health care systems are designed for the dominant society and hence many PA programs still adopt a Western worldview rather than privileging an Indigenous worldview,<sup>9</sup> and addressing cultural competencies to facilitate Indigenous peoples' access.<sup>7</sup> Culture is the way that Aboriginal and Torres Strait Islander peoples identify within their own communities, families and Country and shapes the relationship between self, family and community.<sup>10,11</sup> Cultural safety is a critical examination of power imbalances between Indigenous patients and non-Indigenous health care providers. It therefore forms a core principle for re-orientation of health care services to better meet the needs of Indigenous groups,<sup>12</sup> and has been articulated as a framework for underpinning culturally respectful health service delivery.<sup>13</sup>

Older Aboriginal and Torres Strait Islanders peoples in Australia have also been prevented from engaging in suitable PA due to the effects of colonisation.<sup>14,15</sup> Introduction of policies and laws limited Aboriginal and Torres Strait Islander peoples' freedom of movement, caused severe disruption of social structure and community leadership and resulted in forced inactiveness.<sup>16</sup> This has resulted in a severe negative impact on the social determinants of health, such that Indigenous peoples worldwide experience significantly higher levels of chronic disease and ill-health.<sup>17,18</sup> Concurrently, services have been limited and inappropriate. Therefore, options and choice of access to high quality PA programs is critical to improving Indigenous peoples' health.<sup>19</sup>

Limited research has focused on developing effective PA programs for Indigenous peoples. PA programs that have reported high levels of community engagement and positive health outcomes in Indigenous communities have addressed cultural safety and security and taken a decolonising approach, including building their programs around the specific needs of their communities.<sup>8,20,21</sup> Decolonisation for researchers is about having a critical understanding of the

underlying assumptions and values that inform the research approach.<sup>22</sup> It is about working collaboratively with Indigenous people and ensuring their input informs the research project, including directing how research outcomes should be applied to any changes within communities.<sup>23,24</sup> Three systematic reviews have focused on Indigenous peoples' participation in PA. One review focused on Indigenous peoples in Australia and New Zealand, one focused on First nations, Inuit and Metis peoples of Canada, and a third reviewed PA within American Indians and Alaskan Natives communities. These reviews reported weak evidence that physical activity resulted in beneficial health outcomes for Indigenous peoples.<sup>25-27</sup> All reviews additionally reported that the limited evidence available meant that further high-quality research was urgently required.

However, two of these systematic reviews included PA programs for individuals of all ages, rather than focussing specifically on PA programs for older Indigenous peoples.<sup>25,26</sup> The third review focused on older American Indians and Alaskan Natives but only found three studies that were able to be included.<sup>27</sup> Older Indigenous peoples' needs differ from non-Indigenous older people due to the trauma engendered by colonisation, ongoing racism, and an absence of culturally appropriate health services.<sup>28,29</sup> Only a very small number of studies have evaluated PA programs specifically designed for older Indigenous peoples,<sup>20,30,31</sup> one being the Ironbark program in Australia. The Ironbark program was specifically designed for Aboriginal communities in New South Wales (NSW).<sup>30</sup> The program is a community-based, Aboriginal-specific fall prevention program delivered via weekly sessions that consist of one hour of exercise (including strength, balance, and functional exercise) followed by 'Yarning' about information related to fall prevention. Yarning has been used by Aboriginal people in Australia for thousands of years. It is an accepted research method used by Aboriginal and Torres Strait Islander researchers that allows sharing of information in a culturally safe manner with Aboriginal and Torres Strait Islander peoples.<sup>32</sup> Elders in NSW who participated in the Ironbark program reported that they enjoyed it and recommended it to others. Participants also demonstrated significant improvements in physical function.<sup>30</sup>

However, although the Ironbark program delivered positive outcomes in NSW, there was no PA program specifically designed for older Aboriginal people in WA. Therefore, to address this gap two Noongar communities in the South West of WA partnered with a research team to implement the Ironbark program in WA.

The aim of undertaking this project was to translate and evaluate the Ironbark PA program with older Aboriginal people in WA. The communities and researchers recognised that the Ironbark program was purposefully designed for Aboriginal Elders in NSW and needed to be adapted to the specific needs of older Aboriginal peoples the South West of WA. This was important because of differences in the history of colonisation between NSW and WA and differences in culture, including lore, customs and spoken dialects. Therefore, it was important to explore Elders' perspectives about the program when it was undertaken in WA. The objective of the study was to explore how engaging in an Aboriginal-specific PA program impacted on the lived experiences of Elders in the South West of WA.

## 2 | METHODS

### 2.1 | Design

The study was nested within the larger project that aimed to translate the Ironbark Program into Noongar Country, WA. In the WA groups, the one-hour exercise component of the Ironbark program also intermittently included dancing and walking to background music, and the subsequent yarning circles discussed falls prevention but also other health related topics. Yarning was undertaken with a shared lunch.

### 2.2 | COVID 19 Lockdown period

The Ironbark PA program was conducted over approximately two years (2020-2021). However, there was a gap in program delivery of approximately six months due to social restrictions caused by the COVID 19 pandemic. Further intermittent restrictions occurred for short periods after the initial closure, and some Elders felt less confident to return to the program, meaning there were less participants by the end of the program.

The study used a descriptive phenomenology approach as it sought to explore the Elders' lived experiences of the Ironbark program.<sup>33</sup> This was underpinned by principles outlined for Indigenous research methodology.<sup>34</sup> These principles included leadership by an Aboriginal researcher who was capable and confident in her comprehension of Indigeneity, respecting Indigenous knowledge (of the Elders and communities) and peoples and honouring relationships.<sup>34</sup> The team of Aboriginal and Western researchers who supported the program with the Aboriginal Elders, were conscious of the research methodology of "weaving at the interface" of Indigenous and Western systems.<sup>35</sup> This Indigenous research method privileged Aboriginal and Torres Strait Islander voices, showing a central focus on mutual respect, cultural integrity and reciprocity for Aboriginal and Torres Strait Islander communities.<sup>35</sup> Central to this method is taking a decolonising approach, which recognises that Indigenous research must decolonise and create empowerment and resilience in the research space.<sup>35,36</sup>

The research was led by a senior Noongar Wadjuk woman from WA (MJRG) supported by a research team that included senior Aboriginal researchers. The lead researcher used her knowledge and lived experience to engage and work closely with the groups, having the ability to take an Aboriginal perspective of being mindful and flexible. This was important for her own understanding of working with complex Aboriginal communities. She was aware that things are not always going to run well, bearing in mind the effects of an oppressive history,<sup>37</sup> and knowing that continuous listening, patience, respect and reciprocity is needed when working with Elders. This awareness enabled effective data collection.

### 2.3 | Setting and participants

Prior to the PA research program commencing, community consultation was undertaken for approximately two years (2017-2019) with older Aboriginal and Torres Strait Islander people and service providers on Noongar Country in the Southwest of WA. These community partners subsequently assisted in obtaining the funding for the research. After this two-year consultation period, two Elders' groups formed to commence the Ironbark PA program. The two groups comprised of different Noongar Elders and Aboriginal Elders who had migrated from other regions of WA and other States in Australia. This created a mix of cultures from around Australia within the groups. Both groups partnered with local organisations and the research team. One group operated in the metropolitan area with a government department, who provided an Aboriginal project officer to work with the group. The other group commenced in a regional town and was operated within the local Aboriginal Health Service, who provided Aboriginal health workers and non-Indigenous health workers as an operational team.

All Elders enrolled in the Ironbark program in WA were invited to participate in the study to gain a rich understanding regarding their experiences. Inclusion criteria were attending and being enrolled in the Ironbark program, remaining enrolled at the 12 months follow up period of the program and being 45 years of age or over.

### 2.4 | Data collection procedure

#### 2.4.1 | Engaging with each aboriginal elder

The lead researcher (MJRG) developed a plan to engage successfully with the Elders. This involved first developing her own values and ethics around engaging with Aboriginal and Torres Strait Islander peoples<sup>38</sup> and second, becoming familiar with the Aboriginal terms of reference that had been developed by each group. These described their own rules and guidelines for how they wished to engage as a group and with each other, including respecting peoples' views, listening when someone else is speaking, and encouraging positive interactions.<sup>39</sup>

The researcher visited each Elders' group weekly, to observe and participate in the PA and yarning, as it was considered vitally

important to build relationships prior to conducting any interviews. The researchers aimed to reciprocate to Elders for their wisdom and knowledge by giving back through praise and recognition of their achievements with a certificate of participation in the program. Elders who completed an interview were also provided with a voucher, as a reimbursement for their extra time and travel.

## 2.4.2 | Researcher diary

The researcher kept a diary of observations, personal reflections and notes throughout the research. These observations and notes assisted in bracketing to ensure that the researcher set aside her own personal views and knowledge and focused on the Elders' perspectives. This allowed the researcher to take a reflexive approach that reduced her preconceptions impacting on the research and raised her awareness of potential power imbalances between herself and the participants.<sup>40</sup> The diary created an audit trail which aimed to establish credibility. Diary data were triangulated with the interview data which aimed to improve the trustworthiness of the results.<sup>41</sup>

## 2.4.3 | Semi-structured interviews using a yarning approach

Interviews were completed approximately 12 months after commencement of the program. In the original Ironbark program evaluation in NSW the Elders provided feedback through one large yarning

circle.<sup>30</sup> In WA, individual yarning sessions were conducted to allow the researcher to conduct personalised, deep discussion about Elders' perspectives and experiences. The researcher first developed semi-structured interview questions by referring to a holistic view-point of health that is understood by Aboriginal and Torres Strait Islander peoples.<sup>42</sup> Elders were asked broad questions about their spiritual, social, emotional and physical health. When conducting these interviews with Elders a yarning approach was considered culturally appropriate as it is an acceptable way to sit and discuss with Elders any topics of interest, rather than following semi-structured interviews where the interview guide steers the interview.<sup>32</sup>

## 2.5 | Data analysis

Qualitative data were analysed using thematic analysis.<sup>43</sup> The steps of the analysis are summarised in Table 1.

Transcribing took a back-and-forth approach between the audio files and transcripts. Audio files of half the interviews were transcribed verbatim by the first researcher and the other half of interviews were transcribed professionally.

All data were initially checked by the first researcher (MJRG) and corrections made where necessary which required listening to audio files a second time for confirmation. Early ideas about the data and reflection on coding were cross checked with entries from researcher's diary. Bracketing was important to use when conducting the interviews and during the analysis,<sup>40</sup> where the preconceptions of the researcher even though she was a Noongar Wadjuk person, were

TABLE 1 Summary of analysis process<sup>a</sup>

Step	Action
1. Lead researcher familiarises themselves with all data	Transcribes some interviews themselves to understand data, reads through transcripts of professionally transcribed interviews, checks where required. Re-reads several times, note ideas, examine data sources.
2. Generates initial codes across entire dataset	Generate initial codes across all interviews and diary notes, work back and forth across the data, to compare, contrast and search for codes, collate data into groups according to codes. Second researcher contributes to coding ideas
3. Search for themes: Collating codes into potential (candidate) themes	Collate codes into candidate themes -gather data into these potential themes examine and re-group and compare, group and re-group. Name themes and check codes match themes, collapse themes as necessary
4. Review themes: Check if the themes work	Three main themes - check codes can be grouped into the themes and then create a thematic map, confirm names- examine if the whole data set can be mapped within the themes and subthemes and answers the research question
5. Define and name themes	Confirm specifics of each theme, generate clear definitions and names for each theme, check if themes reflect the Elders perspectives of the participating in the physical activity program, and tell the overall story of their experiences within the program. Lead researcher MG review themes and overall final thematic map, input from JFC and AMH. MG and MK discuss and confirm final presentation of report
6. Produce final report	Select compelling exemplar quotes, final analysis to confirm that quotes and themes present a clear answer and can be contextualised in the literature regarding Elders' engaging in a physical activity program

<sup>a</sup>Adapted from Braun & Clark, 2006: Using thematic analysis in psychology. *Qual Res Psych* 2006; 3:77-101.

placed to one side. The researcher was required to take a perspective that did not change the message that Elders conveyed, by putting her own experiences and views aside. This approach was chosen to ensure the themes were strongly linked to the data and were an accurate representation of the Elders' perspectives. All data were initially managed using NVivo, qualitative data analysis software (QSR International Pty Ltd. Version 12, 2018). Data were explored taking an inductive approach and coded with visual identification used to identify major and minor codes. A second non-Aboriginal researcher (JFC) examined a selection of data and confirmed the coding process, then all data were coded systematically across the data set. Coded data were examined for patterns and then collated to form candidate themes. These themes were then represented using a thematic map. Both researchers examined the initial thematic map, and it was then reviewed by a third independent researcher on the team (AMH) who was not involved in data collection. This method triangulation aimed to enhance the internal validity of the study.<sup>41</sup> All three researchers then finalised the thematic map and appropriate quotes were chosen to represent the findings. The final data set was presented to both Elders' groups (individually and in small groups) for member checking to ensure that Indigenous views were privileged and presented with care.<sup>27</sup> Finally, the completed dataset was examined by MK and discussed with the primary researcher (MJRG). Final edits were completed by both researchers to confirm that the presentation of the research accurately reflected the views of Aboriginal Elders in WA.

### 3 | RESULTS

There were 52 Elders who enrolled in the study at baseline and 23 Elders were still attending at 12 and 18 months. The Elders who enrolled were mainly from the Noongar nation, the remainder were Elders who had moved to Noongar Country from other nations in Australia. Nineteen of these Elders (ten from the metropolitan group and nine from the regional group) engaged in an interview. Participants' (n = 17 female, n = 2 male) mean age was 64.6 ( $\pm 9.9$ ) years, the median (IQR) number of medications taken was 4 (3-5) and two used a walking stick. Four Elders chose not to give an interview. All 19 participants were interviewed approximately 12 months after program commencement and six participants were asked to complete a follow-up interview at approximately 18 months after commencement (a total of 25 interviews). These participants were asked to complete a second interview as they had provided rich information about their perspectives. The follow up interviews were also used as a means of confirming data saturation, with no new themes being identified.

#### 3.1 | Connecting and reconnecting to a community with a sense of belonging (Overarching theme)

The overarching message that Elders conveyed was that although they came from different cultural backgrounds, they shared a

sense of belonging, a feeling of connectedness, and an identity with one another. Attending the program was perceived as having a strongly positive impact because, as they explained, it resulted in connecting and reconnecting with community. One Elder (P1) explained that, "Yeah, it has. And when I see them [Indigenous Elders] in the shopping centre or walking or anything, yeah, we're always connecting and talking. It's very good." Another Elder (P2) commented that, "...because we all knew one another we all knew what one another was doing and helping one another out. We encouraged each other. It's all about connecting, isn't it?" Yarning together was seen to be a way of socialising and learning but above all, connecting with culture. An Elder (P3) who is a leader in the metropolitan community stated that, "Reconnecting with culture...connecting with other Indigenous people that was one thing...that was really the main thing."

The sense of belonging and connectedness was felt to be enhanced by having a PA program just for Aboriginal peoples and was appreciated. One Elder (P4) said, "I'm not discriminating on white fella's way's, but Aboriginal people are nyoorn (sorry), are looking for these things, now that we have got something you know." The program was felt to be culturally appropriate and comfortable to attend, with one Elder (P5) stating "Um, well I suppose it is because its only mainly Aboriginal people attending it um, I suppose I feel comfortable being here with Aboriginal people", while another Elder (P6) said that: "...I think it is culturally appropriate." An Elder (P4) from the metropolitan group spoke about the feeling of being welcome:

"...everybody makes you feel welcome, cause the nature of the people that go there,...they've got that good supportive welcome to you and understand and respect you there, that you just can't get anywhere else..."

Another Elder (P7) from the regional group also explained how she felt welcome in the group:

"... because when I am here with the .... women here we are one big mob and that makes a hell of a difference in how you manage to work together, laugh together and exercise together it, there's no um there's no discrimination amongst us, we're all one."

#### 3.2 | Major benefits of the program (Main themes)

There were three main themes that described the benefits of the Ironbark program: (a) *Positive mental and emotional changes*; (b) *Physical improvements*; (c) *Social benefits*.

Sub themes of Elders' experiences (presented in [Figure 1](#)) were illustrated by an *Ironbark tree* that symbolised the Ironbark program. The tree (Ironbark program) provided nurturing experiences across a holistic spectrum and Elders described how these experiences led

to growth and development of a strongly positive and encouraging outlook on life.

Subthemes (see Figure 1) were *Knowledge, Enjoyment, Confidence and Depression; Balance, Walking, Strength and Falls; Socialising, Family, Yarning, Community, Sharing, Caring and Support*. These themes were identified as being what motivated participants to return regularly to participate in the program and were also viewed as benefits of participating in the program. Elders concurred that they started to feel the benefits and their family members noticed those benefits. The program was therefore found to facilitate behaviour change. This was evidenced by some Elders walking to the weekly group from their home, instead of being picked up by a relative or service provider (*researcher diary*).

### 3.3 | Positive mental and emotional changes

#### 3.3.1 | Sub themes – Knowledge, enjoyment, confidence and depression

Elders were positive about the dual nature of the program, whereby they participated in exercises and then later in the yarning circle where they could discuss topics of interest. They described how this enhanced the appropriateness of the program as it was not

only about exercise but had elements that encouraged learning and growth. One Elder (P10) stated, "...A group getting together, having fun and yarning and sharing information as well as education on health topics." Another Elder (P11) described her impression of the group as including "...more information and more exercise, it's really (about) keeping healthy."

Elders experienced a positive impact on their mental health, which they described as a reduction in anxiety, depression or stress. An Elder (P9) spoke about the loss of her son a short while before Ironbark commenced in her community, explaining that "I had a lot of stress and tension...since I lost my son... It's all great, especially the socialising afterwards, I feel much better in myself". She described that "...since I discovered Ironbark Exercise Program back in 2018, I haven't looked back, I get feelings of depression every now and then but overall, my health is improving." This Elder (P4) described how the group had strongly impacted on him from within and his comment captured this point, "I think with the Ironbark it gives people some feeling."

Elders referred to strength as being not just physical, but mental and emotional as well. They described that as they got stronger and their balance improved their mental and emotional health improved concurrently. One Elder (P12) stated: "It just shows you that those sorts of things like the exercise makes you stronger physically and mentally."

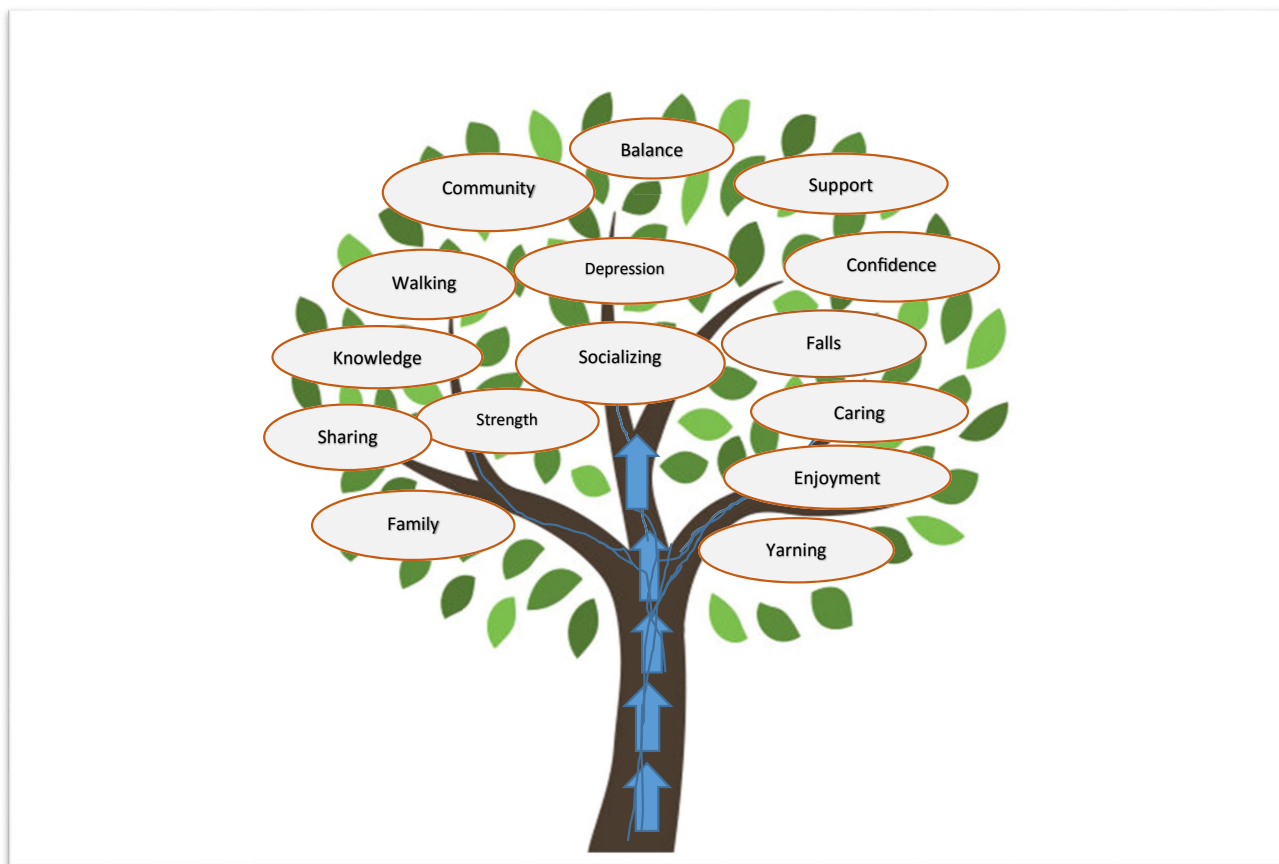


FIGURE 1 The Ironbark Tree. Elders' perspectives about the benefits experienced from participation in the Ironbark program

Another Elder (P4) commented that;

*"well...it's given me, to me it gave strength to heal me up quicker with my leg, if I wasn't doing the exercises at Ironbark I, I would be lost, I'd, I'd be depressed and I would be lost as a person, but it gives me the strength as a person to do what I want to do, yeah".*

They desired to get out of bed in the morning and do something different, and this Elder (P9) said, "well I sort of get out to walk because of coming here and (since I) started doing Ironbark my sister and I goes walking, to all these places where we live, out in the field (local area)."

Several Elders talked about gaining confidence through the program and that confidence enabling them to participate in their community. One Elder (P13) explained that she did not feel confident initially, but with support from the group was able to grow in confidence. "(I was) not feeling confident...When I felt comfortable with the ladies and I had a few sessions...I felt comfortable in doing the exercises because I'm a big person."

Another example of developing confidence and motivation occurred in the regional group, with this group of Elders who attended the local swimming pool on another day of the week. (*Researcher diary, August 2020 – one female participant mentioned 'yesterday's exercises' at the local swimming pool*). The regional group were also eager to do more exercises outside of the Ironbark program and began to investigate doing bike riding or Zumba (aerobic dance exercise) on other occasions.

### 3.4 | Physical improvements

#### 3.4.1 | Sub themes – Balance, walking, strength and falls

There were improvements gained from the physical activities that became more evident over time. Elders acknowledged that they were exercising more regularly, and they could see and feel the health benefits which they noted as improvements compared to their previous abilities. As this Elder (P14) said, "I get arthritis in my right knee as well, so the exercise is good for that and it's also about the balance as well as you get old." Elders walking, balance and strength began to improve. One Elder (P1) described her experiences in terms of where she had come from and how she felt her goals were being achieved, by saying "Because I want to be fitter than what I am and able to play with the grandkids and great grandkids and there's – I feel useless when how my body was before I went there. I wasn't coping and I was losing balance a bit."

Some Elders discussed how they had increased their home exercise. This Elder (P15) said, "I'm feeling...better, since I've been bouncing on the machine for 50 minutes a day... I started off at 10 minutes then I thought I'll go 15. 25 minutes in and I love it..."

Some Elders needed to gain confidence to join in with walking activities in the program because they feared tripping and falling

over. One Elder (P9) described her walking: "...I live not far from here and then afterwards I walk home, that's enough walking for me and I also do lots of walking in the Community and at home, I am very active when I am not at the Ironbark exercises." Another Elder (P1) from the Metropolitan group stated, "...my whole backyard. I start walking from that shed all around, all around and come back and then I'd count the steps, it's more than 600 steps when I do it, even four times walking, something like that, now I'm walking faster than normal and everything."

There were Elders in both groups who felt confident enough to pack away their walking aids and wheelchairs because their mobility had improved to the point that they no longer needed equipment to help them safely move around. One Elder used to arrive in her electric wheelchair and had her walking frame on standby, because she had no confidence in her balance and strength to get out of her wheelchair and walk across the room. After regular attendance at Ironbark, she walks everywhere and enjoys the strength and balance that she has gained back in her life (*researcher diary*). In her own words this Elder (P16) told her story,

*"My sister came there last week, one day, and I was sitting down on the lounge seat and I don't know what happened, but we had to get up and go outside and she said, come outside and have a look at a cow. I just bounced up out of my seat, she said hey, you got up there fast. It surprised me. She said you're even better than I am".*

Another Elder (P17) from the metropolitan group related, "I had a knee replacement and then I heard about the Ironbark Program and I thought wow this is for me, and I don't know what I'd have done without them, it's not quite a year that I had the operation, when I went to see my physio, cause I threw my crutches away, he was shocked to see I had no crutches, he said, "where's your crutches? Oh, I threw them away."

Improvement in the ability to get down on the floor and back up again unassisted, was a sign of improved balance and strength that Elders perceived allowed them to maintain their independence in their environment. One Elder (P1) described visiting her family:

*"One little incident was I couldn't get up from the floor and the program was teaching me how to get up off the floor. I went to my kid's place and I went to sit down on the floor, and they started saying, "Oh don't go doing that and you won't be able to get up." And I said, "I will show you what I've been learning." And they say, "No you won't be able to get up mum." And I said, "I will. Just watch me." And I got up anyway, no problems at all and they said, "Oh, well it's doing you some good, mum."*

Elders shared how they felt their risk of falling was reduced as they could react in time to prevent themselves from falling over. One Elder (P9) was very proud to share a recent experience of almost falling over,

"My balance has improved remarkably... I was walking down some steps when I felt myself falling forward. I quickly assessed the situation... saying to myself, I'm not going to fall left or right, I'm just going to sit down, and down I went on my bottom. My quick thinking saved me from falling (down the steps)".

### 3.5 | Social benefits

#### 3.5.1 | Sub themes – Socialising, family, yarning, community, sharing, caring and support

Prior to joining the Ironbark program some Elders did not go out into the community and were not linked to any social groups. Participants in both groups frequently expressed how the program formed a wonderful social opportunity whereby they met with other Aboriginal Elders. Several Elders explained that the program was "family" and described how they felt comfortable and at home with one Elder (P8) stating, "So we love it... this is a family thing so, I love it." An Elder (P18) from the metropolitan group commented:

*"First of all is socialising. I really love it, to getting all around my people and second, it is exercising and some fun and having songs and everything and third of all, getting get together in a group. So, it's really great."*

The experience of socialisation "before the program" compared to after commencement was frequently discussed and one Elder (P1) made this comment, "Before when I sit alone I've got so many experiences (of being) alone, but now when I'm socialising with the group on Tuesdays, so it's really a great impact on socialising plus talking plus get together with the people". Another Elder (P5) also used the before and after story to state:

*"Um several reasons, um I wanted to get back into exercise um mainly because I put on a lot of weight um, the social side of it, getting me out of the house, um because I been becoming a bit of a hermit, as so this is good it gets me out of the house, um yeah and just mixing with some of the other ladies is good."*

Aboriginal Elders participating in the Ironbark physical activity program consistently made comments about how they enjoyed the yarning after they had completed their physical activities. One Elder (P18) expressed the enjoyment and emotional support obtained from the yarning, "Well you can find out you know what.... any problems or find out if someone is sick...then you can find out about good things (in the Yarning circle)."

The support was viewed as being part of a close community of Aboriginal Elders and these feelings were shared by many of the Elders with one Elder (P19) expressing, "Well, company, other people, yarning, food and the exercise. It all works around it. Once you do the exercise you realise that strong confidence in yourself. So, it's

good." A sense of sharing and being with others made people feel included and confirmed a sense of belonging in the local community. One Elder (P16) summed up their feelings about being a part of the program by saying,

*"...yeah yeah that's what I'm looking at, and I don't worry what is around me and what is being said, or you know it's there to be enjoyed and its company with people and to share in with what everyone is doing..."*

## 4 | DISCUSSION

This study explored the experiences of Aboriginal Elders in the South-West of WA who attended a PA program (the Ironbark program) that was specifically designed by Aboriginal communities, Elders and researchers. Both groups described their experiences as positive, resulting in them connecting and reconnecting to their community, with a strong sense of sharing and belonging that was meaningful. They also expressed how this sense of belonging was both the key reason to attend the program and the major benefit of continued participation.

These findings are an important exemplar of how a PA program that is designed using an Indigenous research methodology which incorporates a decolonising approach,<sup>35</sup> can result in strong benefits for Aboriginal Elders, as well as holistic improvements in health and wellbeing. Elders in WA concurred with Elders in NSW regarding the positive effect of the Ironbark program on their lives. Privileging Aboriginal ways of working and using strategies that are culturally appropriate to help the researchers engage successfully with the Elders groups is central to this approach.<sup>35</sup> Elders felt a sense of safety by being in an appropriate environment, which also created a sense of enjoyment. They expressed how being with other Aboriginal Elders in this culturally safe and supportive environment facilitated their ability to "reconnect to culture." These findings concurred with an earlier study conducted with American Indian and Native Alaskan older adults.<sup>3</sup> Those Elders stated they strongly desired to be around people of similar identity, with culture and community being important motivators. Connecting to community was experienced by our participants as connecting to culture. Programs that are culturally safe, conducted in a comfortable and safe space and run by Indigenous people and communities have been found to have high participation rates and result in benefits for Elders who take part.<sup>5,28</sup> A recent systematic review that included 24 studies from four countries concluded programs that used a decolonising approach, were culturally appropriate and addressed socio economic determinants of health facilitated older Indigenous people's engagement in PA.<sup>44</sup>

Elders described noticeable improvements in their mental, physical and social wellbeing. As confidence and self-esteem grew, some Elders reported that their anxiety and depression levels had reduced. Elders consistently reported improvements in their mental health, with comments regarding feelings and emotions being



more positive. For example, many Elders reported increased confidence, motivation and more social engagement, all of which motivated them to want to do more. These findings concurred with the Ironbark program in NSW.<sup>30</sup> Although there is strong evidence that older adults' mental health is positively impacted by exercise in non-Indigenous populations<sup>45,46</sup> this study is one of the first to identify that Aboriginal Elders report mental benefits from engaging PA when there is an appropriately designed program.

Some Elders experienced major improvements in their physical ability, such as being able to get up off the floor independently. These findings support those of a systematic review that reported that PA programs improved fitness and health in Indigenous participants, although the included studies did not exclusively enrol older adults.<sup>26</sup> The social aspect provided strong motivation to attend the program and doing the exercises and then being able to sit and share stories in the yarning circle was highly valued. It is known that older Indigenous people maintain continuous links, including through cultural ties, family kinship and local community networks.<sup>30,35</sup> Another study reported that participating in a PA program for Aboriginal people created a sense of community pride with a feeling of connectedness.<sup>47</sup> Family and community support has been found to motivate Aboriginal Elders to achieve exercise success.<sup>5,31</sup>

Physical activity is recognised as critical to maintaining health and wellbeing and reducing the risk of chronic disease.<sup>1</sup> Creating a space where Elders felt they belonged, enjoyed themselves doing exercises and were able to feel their voices were heard and listened to in a yarning circle was important to the success of the program. Therefore, working with Aboriginal Elders in this way is an approach that has potential to significantly improve older Aboriginal and Torres Strait Islander peoples' health and well-being. Other health services could be supportive of this decolonising approach as it appears to be the key to stopping the revolving door of health inequities.<sup>9</sup> This study was designed and translated from an existing program in NSW,<sup>30</sup> where Aboriginal and non-Indigenous researchers working together used a decolonising approach that enabled the expression of all the cultural identities involved.<sup>20,24</sup> A qualitative study that explored how Aboriginal and Torres Strait Islander Elders know about their chronic diseases found that these Elders had significant knowledge about how they could help to address their health and wellbeing.<sup>23</sup> These Elders drew on their cultural knowledge and understanding of their own health concerns and desired to lead healthy ageing programs from within their own communities.

#### 4.1 | Strengths and limitations of the research

Strengths of the research included extensive community consultation. There were challenges and some barriers, but both groups were similar in that they sought to participate in PA within a culturally safe place that supported them, and this resulted in strong benefits. This was evidenced by many Elders continuing to attend the group

for over 18 months, even after the COVID 19 lockdown period. The lead researcher who conducted the interviews was a Noongar Wadjuk woman who understood ways of working together. The researcher sought to maintain professional boundaries while showing respect to everyone throughout the research. It is challenging to work closely with Aboriginal and Torres Strait Islander Elders and health workers, as each individual person has their own cultural identity. The lead researcher has also worked for many years within Aboriginal Communities and reflects that there is always a feeling of trepidation of 'have I done enough' what could I have done better? These questions that seek accountability and transparency are a key part of the research process and must be answered continuously throughout the research.<sup>34</sup> The lead researcher was related to some Elders, hence it was easy to work with everyone treating them the same way, with trust and good relationship building techniques, in part by maintaining a professional and positive attitude. Relationship building is foundational to undertaking research with Indigenous peoples.<sup>34</sup> The aim is to form strong connections with each Aboriginal Elder and local service providers to enable them to participate in the research. It is about communicating well through listening and observing in the beginning stages and actively joining in with parts of the conversation, particularly during yarning circles. Learning about how the Elders manage their lives outside of the PA program was all relevant to the data collection.<sup>32,34</sup>

During the interviews bracketing was used to strengthen the analysis and ensure the voices of Elders were heard.<sup>35,40</sup> The researcher found that she needed to continually reflect during and after interviews, and in her diary, to examine if she was taking her family role to make meaning rather than setting aside her views. However, her experiences and views also formed a strength of the research as it was valuable to understand what participants were meaning and to have good relationships with the Aboriginal Elders as that is central to the research. Sharing her own experiences was part of taking a "ways of working" approach with Older Aboriginal and Torres Strait Islander peoples. To be able to share similar experiences with older Aboriginal people and to share your stories with theirs helps to break down barriers. This was part of the relationship building, and, like an icebreaker, it was also an important part of building reciprocal understanding. The researcher shared similar histories and parallels her own life and this helped Elders to relax and openly share their own feelings and thoughts. Four Elders did not give interviews but still attended each week because they enjoyed the program. Storytelling and sharing knowledge by some Elders was a good way for the researcher to continue to collect further information.<sup>23</sup> The lead researcher checked the findings with the Elders and the Elders' feedback was reviewed by the first and second researcher and senior Aboriginal researcher prior to finalising the analysis. This member checking aimed to strengthen the credibility of the results.<sup>41</sup> Researchers also created an audit trail and used researcher diary observations to aid in confirming the analysis.<sup>41</sup>

Limitations of the research included that the program was cancelled for approximately six months in 2020 due to the first COVID-19 pandemic lockdown. This occurred after the 12-month

final interviews were completed. During the lockdown period the Aboriginal research assistant and project officer in the metropolitan group made weekly contact with all Elders through phone calls and Facebook messages. Relationship building continued throughout the COVID-19 lockdown period with the researcher visiting Elders in both groups when possible. In the regional group the Aboriginal health service provided house visits and phone calls to the Elders to maintain connections and provide health services where required. When the program re-commenced in July 2020, there were some restrictions and changes due to requirements to adhere to public health safety guidelines. For example, registration on entry and social distancing was required each week. This meant that time was required to re-operationalise the program.

This study formed part of a program of research to evaluate the translation of the Ironbark program in Noongar Country in WA. Some Elders enjoyed attending the program at intervals but chose not to enrol in the study. Their decision not to give feedback or formally participate was respected by the research team. The Elders who chose to give interviews concurred strongly that the program was enjoyable and valuable and attested to strong positive benefits. In phase two, further evaluation of the program to measure changes in the Elders' health and well-being will be completed, to quantify the effect of the program on physical outcomes such as mobility and strength.

Indigenous Elders' groups from Nations around the world have different beliefs and perspectives, therefore findings from this study are not directly generalisable to other groups. However, these findings may be useful for communities and researchers that wish to commence PA programs with older Aboriginal and Torres Strait Islander peoples and First Nations peoples from other colonised countries. Findings can also inform future health planning. A review of PA programs that targeted Aboriginal and Torres Strait Islander groups found that while there were over 100 programs being conducted, their evaluations were underrepresented in academic literature. This review recommended that more programs disseminate their evaluations to identify gaps in services and share information on components of programs that could benefit populations in other locations.<sup>48</sup> Findings from this research also highlight the positive response to the Ironbark program, which concurs with previous findings about the program in NSW.

## 5 | CONCLUSION

Racism and colonialism have been found to be significant barriers to older Indigenous people engaging in PA programs.<sup>7,44</sup> This research highlights that a PA program that is underpinned by an Indigenous methodology can result in positive experiences for older Indigenous peoples. The program has important principles that can inform research for Indigenous groups worldwide, including appropriate local leadership and local community consultation. Translation to Indigenous communities internationally could be successful if it suited the needs of the those groups and sought their input from

the beginning to end. Elders in the South West of WA reacted positively to the program and expressed a strong sense of connecting and belonging. This sense of inclusion was viewed as the most valuable aspect of joining the program. Elders experienced holistic benefits from their participation, describing improvements in physical, mental, emotional and social well-being. Descriptions of weekly experiences affirmed that Elders valued the decolonising approach of the program that privileged Elders' voices and established mutual respect and cultural integrity.<sup>35</sup>

Older Aboriginal and Torres Strait Islander peoples have specific health needs and require access to appropriate PA programs that adopt a decolonising approach to address Indigenous health and wellbeing. There are few culturally appropriate PA programs for Elders and dedicated funding and adequate resources to expand these programs is required. Elders provided strong feedback through this research that when such programs are delivered, they lead to good health outcomes for the individuals who can access them.

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## CONFLICT OF INTEREST

The authors have no conflicts to declare.

## ETHICAL CONSIDERATIONS

Approvals for the research were obtained from WA Aboriginal health ethics committee (HREC842) and the Curtin University human research ethics committee (HRE2018-0425). All Elders interviewed provided written informed consent to participate in the study. The research followed the National Health and Medical Research Council of Australia guidelines for ethical conduct in research with Aboriginal and Torres Strait Islander Peoples and communities.<sup>38</sup> These principles

guided each step of the research, including facilitating researchers to follow CARE principles of Indigenous data sovereignty.<sup>49</sup>

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