

How community sport facilitates the biopsychosocial health of Indigenous communities: a qualitative systematic review and meta-synthesis.



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Declaration

This report contains no material which has been accepted for the award of any other degree or diploma in any University, and, to the best of my knowledge, this report contains no materials previously published except where due reference is made. I give permission for the digital version of my thesis to be made available on the web, via the University's digital research repository, the Library Search and also through web search engines, unless permission has been granted by the School to restrict access for a period of time.

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**How community sport facilitates the biopsychosocial health of Indigenous communities:
a qualitative systematic review and meta-synthesis.**

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Abstract

The experience of engaging in sport and recreational activities is largely different for Indigenous peoples when compared to non-Indigenous populations. There is a need to consolidate the current qualitative evidence base to facilitate sporting and recreation opportunities that could promote holistic benefits for Indigenous peoples. It is evident that sport and health research on Indigenous communities is inconsistent in its quality and cultural safety. This study aims to explore the current landscape of Indigenous qualitative health research within the context of sport. The purpose of this study was to produce a meta-study of qualitative research examining sport and recreation experiences of Indigenous peoples in Australia, New Zealand, the United States, and Canada. After identification and screening, 27 articles were retained for analysis and synthesis. Characteristics of included studies were examined through the meta-method and meta-theory analysis. The meta-data analysis revealed five themes (barriers and facilitators to engagement, physical health benefits, racism and discrimination, social and emotional wellbeing, and community spirit) and several sub-themes representative of the sport and recreation experiences of Indigenous people and communities. The final meta-synthesis situates these themes within an Indigenous model of wellbeing and synthesises the method, theory and data of the included studies. This review consolidates the evidence base and provides direction for future research and best practice.

Keywords: sport; recreation; wellbeing; Indigenous

Introduction

Research with Indigenous peoples from Australia, New Zealand, Canada, and other colonised countries indicates a positive relationship between participation in sport and recreation and the following health outcomes; in physical health, social and emotional wellbeing, and risk of mental health disorder (Bruner et al., 2016; Macniven, Canuto, Wilson, Bauman & Evans, 2019; Moon, 2012). Further, participation in sport and recreation contributes to individuals belonging within a community, and provides opportunities to strengthen communities and culture (McHugh et al., 2019). Despite the obvious health and social benefits of engaging in sport or physical activity, community sport or recreation can be a hot-spot for racism and discrimination (Hippolite & Bruce, 2010) adding a substantial mediating factor to the experience of sport for Indigenous people.

Racism in sport occurs at many levels and includes structural racism where Indigenous players might be relegated to non-leadership positions or punished more harshly compared to their non-Indigenous counterparts and covert racism where players may be verbally or physically abused by spectators, the opposition, or their own team members (Tatz, 1995; McHugh, 2019; Hippolite & Bruce, 2010). A substantial body of research suggests that racism can significantly impact the physical and psychological health of Indigenous people (Paradies, 2006) therefore, its longstanding place within sporting culture should be of concern and addressed urgently.

In the last decade, 'sport for development' has been purported as an effective tool for health promotion (Rossi, 2015). When framing sport as a health promotion tool within Indigenous communities it is important to be cognisant that promoting health through sport in the name of development is not a neutral act. Darnell (2007) when sport as a health promotion or development tool is defined by non-Indigenous people, it could be perceived as another insidious form of colonisation. However, when development is described as being an

agent to enhance people's wellbeing, expand their choices in health and education, and optimise their opportunities to meaningfully participate in society (Human Development Report, 2013), it is easy to imagine how sport might be an appropriate health promotion tool. A review by Ware and Meredith (2013) cautions us against expecting too much from sport as a development tool, however a number of case studies from colonised countries where there were benefits to participants biopsychosocial health suggest that considered sporting environments can be an effective vehicle for health promotion.

Given these nuances, there is a critical need to understand the experiences of Indigenous peoples in the context of community sport and recreation to enhance sport and recreation opportunities and environments for the health and wellbeing of Indigenous communities. There is currently a lack of consolidated qualitative evidence in this area.

Indigenous peoples are among the most researched communities in the world (Penman, 2006 and Stubhben, 2006) with much of this research being conducted by non-Indigenous researchers. Indigenous community leaders are now demanding researchers acknowledge the detriment that conducting research 'on' Indigenous peoples has and is causing, and recognise that fostering meaningful partnerships between Indigenous peoples and researchers is the only way to ensure benefits for Indigenous communities (Laycock, 2011). Psychological research regarding Indigenous populations has been criticised for lacking in its methodological rigor, and de-emphasis of Indigenous epistemologies and values (Laycock, 2011). There is an ethical imperative to conduct culturally safe and appropriate research in psychology (NHMRC, 2003) and in response, this review will analyse the quality of Indigenous health and psychology research in sport by utilising a critical appraisal tool developed by an Indigenous-led research team based in South Australia, which "privileges Indigenous epistemologies, values and principles for ethical research" (Harfield et al., 2020, p. 7). Please see Appendix A for the full tool.

Research Questions

1. What are Indigenous people's experiences in engaging with community sport?
2. How do Indigenous people perceive community sport as it relates to biopsychosocial health?
3. What is the current state of Indigenous community sport and health research in regards to methodological rigor and cultural safety?

Method

Procedure

This study is registered with the international prospective register of systematic reviews (PROSPERO registration number REDACTED). The current study followed the University of Adelaide, Johanna Briggs Institute (JBI) guidelines for systematic reviewers utilising meta-aggregation (Lockwood, Munn & Porritt, 2015). We searched MEDLINE via Pubmed, PsycINFO, CINAHL and the Cochrane Library in May 2021. Search terms were devised in consultation with experienced supervisors and a JBI researcher. Included terms related to; Indigenous peoples in Australia, New Zealand, Canada, and the United States; sport, community sport, recreation, physical activity; and health, biopsychosocial health, and well-being. There were no date or participant age limits set. We identified additional studies by hand searching of reference lists of the included studies. Citations were imported into Covidence, an online systematic review program (Veritas Health Innovation, 2021).

Screening and selection of studies

The primary researcher assessed titles and abstracts of all identified citations for inclusion based on their apparent relevancy to the review. Two secondary researchers each reviewed a subset of the initial citation. Full-text articles of identified relevant citations were

then assessed for inclusion by four reviewers, where the primary researcher assessed all studies, and three secondary researchers each assessed a subset. Studies were included if they explored experiences of participating in community sport or recreation activities, and were conducted with the following populations; Indigenous people from Australia, New Zealand, Canada, and the United States. Studies were excluded if they were conference abstracts, commentaries/editorials/opinion articles, and study protocols, book chapters, or literature that had not been peer-reviewed. Mixed method studies were excluded where it was impossible to distinguish between qualitative and quantitative data. Studies not published in English were excluded, as were studies that were not qualitative in nature. Disagreements were resolved by consensus. The review process is summarised in Figure 1.

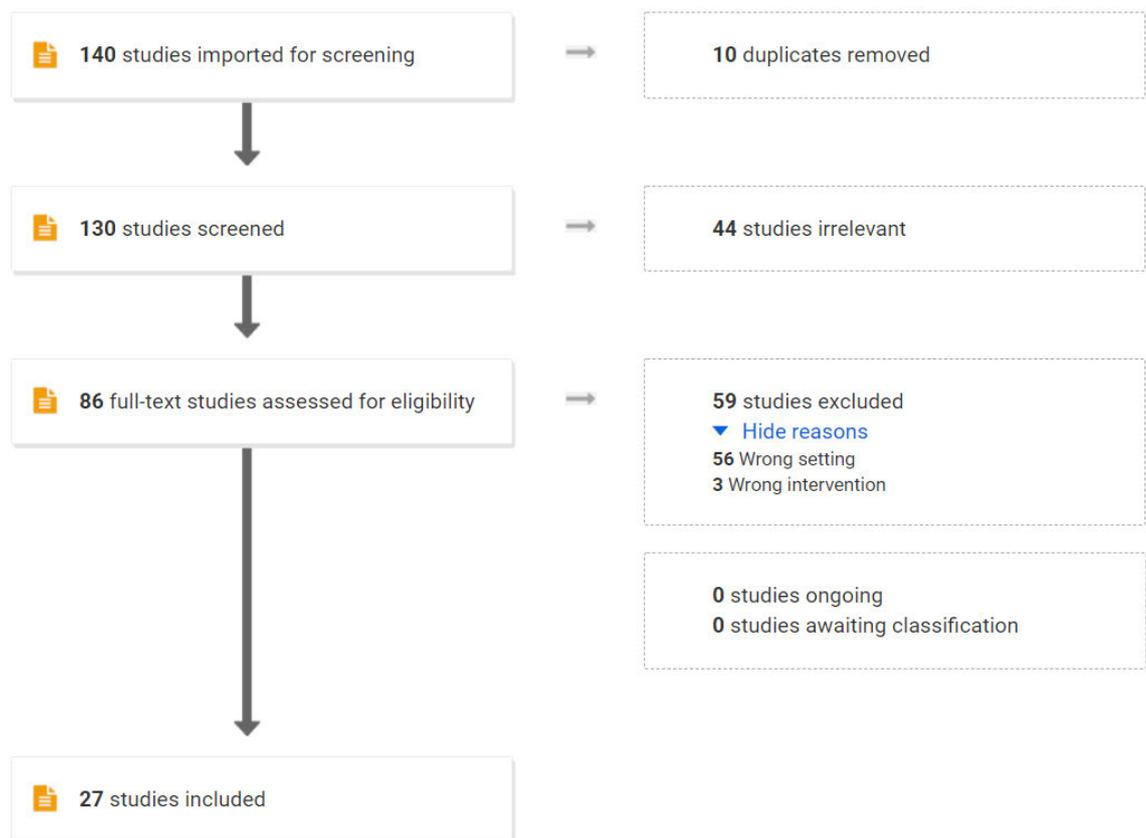


Figure 1: Covidence PRISMA flowchart

Each included article was appraised for methodological rigor according to the CREATE Critical Appraisal Tool (Harfield et al., 2020), the JBI Critical Appraisal Checklist for Qualitative Research for qualitative studies, and the Mixed Methods Appraisal Tool (MMAT) for mixed methods studies. No articles were excluded on the basis of methodological rigor.

Analysis

Following the JBI (2015) meta-study approach, this review involved the individual analysis of three components (i.e. meta-method, meta-theory, and meta-data) and a final synthesis of results. Guided by the final research question, meta-method and meta-theory analysis focussed on the methodological strengths, weaknesses, and cultural sensitivity of the included studies. We tabulated each study's research question or aim, setting, theoretical perspective, methodology, sample characteristics, sampling strategy, data generation techniques, and data analysis techniques. We examined each study against the appropriate critical appraisal tool. These tables were then assessed to identify patterns across the literature.

The meta-data analysis involved extracting and examining main findings and supporting quotes from the included studies to ascertain similarities and discrepancies within the literature. Data were imported into NVivo software where the primary researcher conducted thematic analysis following Braun and Clarke's (2006) guide. This was an inductive process involving open coding of the new data, guided by research questions one and two. Findings without an accompanying quote of clear association were not included in the synthesis. Codes were organised into themes and sub-themes.

Finally, we interpreted, reflected upon, reviewed, and synthesised the three analysis components. Results will be presented in the following order; meta-method, meta-theory,

meta-data, and meta-synthesis, where an Indigenous wellbeing model will be applied to interpret and organise results.

Results

Included studies

Over 550 Indigenous peoples including youth, adults, and elders participated in the 27 studies that explored Indigenous peoples experiences engaging in sport and recreation. Table 1 details study characteristics.

Table 1: Summary of included studies

Author (Date)	Country	Number of participants	Setting
<i>Andrews (2013)</i>	Australia	N=13	Zumba class in Perth Western Australia
<i>Blodgett (2010)</i>	Canada	N=30	Indigenous community in Northern Ontario
<i>Ferguson (2016)</i>	Canada	N=5	Mid-western university campus in Canada
<i>Hapeta (2019)</i>	New Zealand	N=24	Men's rugby team in New Zealand
<i>Hayhurst (2015)</i>	Canada	N=11	The Vancouver Aboriginal Friendship Centre Society (NGO)
<i>Hunt (2008)</i>	Australia	N=96	Various organisations in Queensland, Australia
<i>Iwasaki (2006)</i>	Canada	N=26	Western Canadian City
<i>Kentel (2015)</i>	Canada	N=8	Edmonton, Alberta
<i>Kickett-Tucker (2008)</i>	Australia	N=9	Australian Coeducation Primary School
<i>Lavallée (2007)</i>	Canada	N=7	Martial Arts program in Toronto
<i>Macdonald (2012)</i>	Australia	N=21 families	Remote rural communities in the Torres Strait and Northern Peninsula Area, Australia
<i>Mason (2012)</i>	Canada	N=10	Community based organisations in Alberta, Canada
<i>McHugh (2013)</i>	Canada	N=15	Secondary School in Alberta, Canada
<i>McHugh (2015)</i>	Canada	N=18	Organised sporting program in Edmonton, Alberta
<i>Oliver (2007)</i>	Australia	N=24	Illawarra Pukapuka community
<i>Péloquin (2017)</i>	Australia	N=12 Indigenous people and 12 non-Indigenous	Basketball League in QLD, Australia

<i>Perry (2010)</i>	United States	N=18	Indigenous community in the United States
<i>Petrucka (2016)</i>	Canada	N=Unknown	Standing Buffalo First Nation
<i>Roberts (2017)</i>	New Zealand	N=26	Māori community in Auckland
<i>Sasakamoose (2016)</i>	Canada	N=14	University of Regina, Saskatchewan
<i>Severinsen (2019)</i>	New Zealand	N= over 50	Rangatahi Tū Rangatira Program in New Zealand
<i>Stronach (2016)</i>	Australia	N=22	Redfern, NSW Flinders Island, TAS
<i>Sushames (2017)</i>	Australia	N=34	Rural Australian community in Far North Queensland
<i>Thomson (2000)</i>	Australia	N=42	An urban Aboriginal community in Melbourne, Australia
<i>Thorpe (2014)</i>	Australia	N=14	An Australian rules football club in Melbourne, Australia
<i>Warbrick (2016)</i>	New Zealand	N=18	New Zealand's North Island
<i>Warbrick (2020)</i>	New Zealand	N=23	The best exercise for Māori men' study

Meta-Method

The following table illustrates each articles sampling strategy, data generation method and data analysis method.

Table 2: Summary of included study's methodology

Author (Date)	Sampling Strategy	Data Generation Method	Data Analysis Method
<i>Andrews (2013)</i>	Purposive, convenience, and snowball	Participatory Action Research: Photovoice, interviews, focus groups	Thematic analysis
<i>Blodgett (2010)</i>	Purposive	Collaborative approach: talking circles	Inductive thematic analysis
<i>Ferguson (2016)</i>	Purposive	Narrative strategy: talking circles and 1:1 interviews	Thematic analysis
<i>Hapeta (2019)</i>	Purposive	Kaupapa Māori framework: focus groups and semi-structured interviews	Thematic analysis

<i>Hayhurst (2015)</i>	Purposive	Participatory action research. Interviews, Photovoice, sharing circles	Thematic analysis
<i>Hunt (2008)</i>	Purposive	Focus groups and questionnaire	Iterative thematic analysis and descriptive statistics
<i>Iwasaki (2006)</i>	Purposive	Focus groups	Phenomenological data analysis
<i>Kentel (2015)</i>	Purposive	1:1 Semi- structured interviews	Inductive content analysis
<i>Kickett-Tucker (2008)</i>	Purposive	Interviews and observation	Interpretive thematic analysis
<i>Lavallée (2007)</i>	Purposive	Indigenous research framework: Sharing circles	Thematic analysis
<i>Macdonald (2012)</i>	Purposive	Group interviews	Thematic analysis
<i>Mason (2012)</i>	Purposive	1:1 Interviews	Thematic analysis
<i>McHugh (2013)</i>	Purposive	Participatory research: Photovoice and talking circles	Qualitative data analysis Thematic analysis
<i>McHugh (2015)</i>	Purposive	Community based participatory research: 1:1 Interviews	Content analysis
<i>Oliver (2007)</i>	Convenience	Action Research framework: Focus groups	Thematic analysis
<i>Péloquin (2017)</i>	Convenience , purposive	Interviews	Thematic analysis
<i>Perry (2010)</i>	Convenience , snowball	Community based participatory research: Focus groups and survey data	Inductive qualitative descriptive analysis
<i>Petrucka (2016)</i>	Purposive	Community based participatory research: Sharing circles	Content analysis
<i>Roberts (2017)</i>	Purposive	1:1 semi-structured interviews and focus groups	Iterative thematic analysis
<i>Sasakamoose (2016)</i>	Purposive	Participatory research: Sharing circles	Thematic analysis
<i>Severinsen (2019)</i>	Purposive	Kaupapa Māori approach: Interviews, focus groups, mind maps	Deductive thematic analysis

<i>Stronach (2016)</i>	Purposive	Dadirri approach (Participatory action): Interviews and focus groups	Thematic (inductive and deductive)
<i>Sushames (2017)</i>	Purposive	1:1 semi structured interviews	Thematic analysis
<i>Thomson (2000)</i>	Stratified, snowball, and opportunistic	Interviews and focus groups	Content and thematic analysis
<i>Thorpe (2014)</i>	Purposive	Community based participatory research: Semi-structured interviews and focus groups	Thematic analysis
<i>Warbrick (2016)</i>	Purposive	Kaupapa Māori approach: Focus groups	Inductive thematic analysis
<i>Warbrick (2020)</i>	Purposive	Kaupapa Māori approach: Focus groups	Deductive thematic analysis

Quality Appraisal

15 of the 27 studies included in this review displayed methodological rigor when assessed against the JBI Quality Appraisal Tool for Qualitative Research and the Mixed Methods Appraisal Tool. Criteria that these studies did not meet were predominantly related to reporting on the research team and their influence on the process and results of their respective studies (Andrews, 2013; Ferguson, 2016; Hapeta, 2019; Iwasaki, 2006; Kentel, 2015; Kickett-Tucker, 2008; Macdonald, 2012; Mason, 2012; McHugh, 2015; Oliver, 2007; Péloquin, 2017; Roberts, 2017; Severinsen, 2019; Sushames, 2017; Thompson, 2000; Warbrick, 2020). The remaining 12 studies showed good methodological rigor when assessed against the quality appraisal tools and met most criteria (Andrews, 2013; Blodgett, 2010; Hayhurst, 2015; Hunt, 2008; Lavallée, 2007; McHugh, 2013; Perry, 2010; Petrucka, 2016; Sasakamoose, 2016; Stronach, 2016; Thorpe, 2014; Warbrick, 2016).

Of the studies conducted in Australia, none met every standard in the CREATE critical appraisal tool and only two studies (Stronach, 2016 and Thorpe, 2014) showed promise in their engagement with the Indigenous communities where their studies took place by following Indigenous research paradigms, following community protocols, taking a strengths-based approach, and promoting opportunities for capacity development within the community. No studies reported negotiations regarding community control over the collection and management of research materials, nor did the researchers negotiate agreements in regards to rights of access to Aboriginal and Torres Strait Islander peoples' existing intellectual and cultural property. Similarly, researchers did not negotiate agreements to protect Aboriginal and Torres Strait Islander peoples' ownership of intellectual and cultural property created through the research.

The single study conducted in the United States by Perry (2010) did not meet every standard of the CREATE critical appraisal tool however, it did answer a research question defined by the Indigenous community, followed an Indigenous research paradigm, and made agreements with the community regarding the collection, analysis, dissemination, and ownership of the data.

Similarly, none of the five studies conducted in New Zealand met all criteria in the critical appraisal tool however, all but one (Roberts, 2017) employed an Indigenous research paradigm and appropriately engaged with communities about the research. There was limited evidence to indicate any clear agreements regarding the collection, analysis, dissemination, and ownership of the data.

Results of the CREATE critical appraisal tool were mixed when it came to the eleven studies conducted in Canada. Some studies met almost all criteria, while most others were unclear about their community engagement processes, agreements about data and intellectual

property, and whether or not the study had Indigenous governance or leadership. Some studies did not employ Indigenous research frameworks (Ferguson, 2016; Iwasaki, 2006; Mason, 2012).

Meta-Theory

Several theoretical approaches were employed by the studies included in this review and are summarised in the table below. 13 studies did not describe a specific theoretical underpinning to their approach. 17 studies described their application and integration of decolonising research approaches such as Community Based Participatory Research and Participatory Action Research.

Table 3: Summary of theoretical approaches underpinning the included studies.

Author (Date)	Theoretical approach
<i>Andrews (2013)</i>	-
<i>Blodgett (2010)</i>	Cultural sport psychology and Praxis
<i>Ferguson (2016)</i>	Psychosocial framework
<i>Hapeta (2019)</i>	-
<i>Hayhurst (2015)</i>	Post-colonial feminism
<i>Hunt (2008)</i>	-
<i>Iwasaki (2006)</i>	Resilience framework
<i>Kentel (2015)</i>	-
<i>Kickett-Tucker (2008)</i>	-
<i>Lavallée (2007)</i>	Medicine wheel
<i>Macdonald (2012)</i>	Modernisation and post colonialism
<i>Mason (2012)</i>	-

<i>McHugh (2013)</i>	-
<i>McHugh (2015)</i>	Indigenous-ecological model
<i>Oliver (2007)</i>	-
<i>Péloquin (2017)</i>	-
<i>Perry (2010)</i>	-
<i>Petrucka (2016)</i>	-
<i>Roberts (2017)</i>	Te Whare Tapa Wha (the four-sided house) and social cognitive theory
<i>Sasakamoose (2016)</i>	Strengths based approach, relational Indigenous epistemology
<i>Severinsen (2019)</i>	Whānau Ora (holistic) framework
<i>Stronach (2016)</i>	Bourdieu's social theory
<i>Sushames (2017)</i>	-
<i>Thomson (2000)</i>	Social epidemiology and medical anthropology
<i>Thorpe (2014)</i>	Grounded theory
<i>Warbrick (2016)</i>	-
<i>Warbrick (2020)</i>	Tino Rangatiratanga and Self-Determination theory

Meta-Data

Indigenous experiences of sport and recreation described by the 27 studies included in this review are represented by five themes; barriers and facilitators to engagement, physical health benefits, racism and discrimination, social and emotional wellbeing, and community spirit.

Barriers and facilitators to engagement

All studies explored the barriers and facilitators to engaging in sport and recreation for Indigenous people to some extent. Participants acknowledged various barriers that either inhibited their engagement altogether or negatively impacted their experiences. For example, participants in Andrews (2013, p. 37) study explained how various physical conditions made it difficult for them to attend the sport and recreation programs.

I wish I could just do more. But I can't, because of this (arthritis) I just love sports. But I just can't do it because of my wrist.... too difficult...because at certain angles that it hurts.

Participants also described how fear of re-injury was a deterrent to engaging in sport.

One thing that made me stop playing sports was when I got tripped in junior school and I lost a tooth. After I lost a tooth I was scared to do anything in the gym over there or anywhere. (Blodgett, 2010, p. 276)

Access to transport and the cost of registration, equipment, and travel was identified as a key barrier to individuals participating in sporting activities with participants from Andrews (2013, p. 37) study commenting: *“a lot don't have transport or it's a bit far from where they are to walk, or sometimes they don't have money to come on the bus”*, and one participant from Hunt's (2008, p. 105) study explained how the cost of sport impact on their family: *“they are trying to promote sports but the cost factor involved, people can't afford to get the family involved”*.

Time constraints and other responsibilities were a significant factor when participants considered playing sport. Particularly for young women, childcare and homemaking responsibilities took precedence over sport and physical activity. Men often dropped out of

sport as they got older and attained full-time employment stating “*you can’t go to work and play soccer at the same time*” Blodgett (2010, p. 276).

Competing interests for youth were usually academic study, casual jobs, maintaining social lives, and engaging with technology inside the home rather than participating in outside activities.

They have so much easy access to internet and satellite TV. There are reasons they stay in the house, whereas before, your mother would usually tell you to get outside and play. But, now, play is chatting online with friends. Blodgett (2010, p. 272).

Relational factors played a role in participants’ engagement in sport. Disagreements and conflict within families, between club members, and with the wider community were all said to impact on individual’s willingness to show up and engage in sport. One participant commented that a lack of community on campus was the reason for low levels of physical activity among Aboriginal students (Ferguson, 2016). Further, when Indigenous young people had opportunities to play sport at elite levels, the relational challenges of navigating a new community or culture elicited a great deal of anxiety and could be too daunting for individuals.

There was a boy who had a chance to go play hockey out West, just last year. Now he’s back in our community... He got drafted over there and he just all of a sudden quit hockey... He was scared. (Blodgett, 2010, p. 274)

Under-funded facilities and resources were recognised as barriers to engagement in sport and recreation. A participant from Mason’s (2012) study suggested that poor local services in Aboriginal communities and in socioeconomically disadvantaged areas of urban centres both discouraged active lifestyles, but also enabled involvement with unproductive or damaging activities.

Facilitators to engaging in sport for Indigenous peoples were primarily social. Passionate coaches and community members were considered as cornerstones to the sporting environment and played a significant role in shaping positive experiences for community members.

[Name] went after the funding to build that arena... and he drew lots of kids into hockey. He's just that personality. He wanted things to happen for children. You could tell by his voice. (Blodgett, 2010, p. 272)

Ferguson (2016) found that personal factors such as, engaging in self-talk, goal setting, including significant others, and incorporating traditional beliefs and practices were described by participants as being vital to their engagement with sport.

A strong community network was also identified as a facilitator for individuals to engage in sport. This was particularly evident in the case of young mothers who had to juggle child-rearing and other time constraints.

[Name] initially hesitated to bring her own children to soccer and frequently missed sessions due to childcare demands, eventually she relied on the strong community networks and ties she had with other soccer participants who would assist by caring for her children on the sidelines while she scrimmaged. (Hayhurst, 2015, p. 963).

Racism and discrimination

Studies illustrated how sports can be a flashpoint for racism and discrimination, with some describing sporting environments as “spaces of conflict” (Mason, 2012, p. 104). Participants discussed racism and discrimination as a barrier to engaging and enjoying sport, but also as a reason to pursue sports.

For me sport and racism go hand and hand. I don't know what it is about sport ... maybe just the competition and those attitudes ... but it can bring out the worst in

some people. Whether it was from people I was playing against ...coaches and sometimes even my own teammates ... racism was always a part of it. Sometimes it was racial slurs and whatnot, but a lot of times it is just unsaid, but it's still there with the tension ... I couldn't escape it. (Mason, 2012, p. 104)

Participants across multiple studies described how experiences of racism and discrimination within sporting contexts has compounded over many years to manifest in self-doubt and insecurity.

I have memories of people being rude to me and telling me I was dirty and lazy because I am First Nations... I often feel unsure of myself in various physical activity contexts and, out of fear of being judged for being visibly Aboriginal, question myself: 'Am I even good enough? Am I doing this right? Are other people watching me?' ... I am scared to face further racism when I am trying to be physically active, and ultimately struggle with being judged for being First Nations. Feelings of self-doubt, inferiority, and vulnerability are frequent. (Ferguson, 2016, p. 184)

Despite racist stereotypes being a notable impediment influencing the lives of Indigenous peoples engaging in sport, participants discussed the significance of resisting racist stereotypes through their participation in sports and physical activity (Hayhurst, 2015). Specifically, sport and physical activity became a vehicle for many participants to challenge the ways that racism was being maintained in their communities and aggravated through sport.

It makes me want to come here more to prove them wrong, that not everyone is – wants to drink all the time or do drugs or get pregnant and have a child at 16 or 17. (Hayhurst, 2015, p. 964)

Discrimination within teams was considered insidious, with coaches, staff and team members engaging in covert racism as described by one participant in Stronach's (2016, p. 15) study.

There's some coaches, there's some people that... they want you to shine but not too much because then you're doing what shouldn't be the norm and that's standing out and doing something positive I guess.

Another participant described how racist stereotypes influenced the perception of sporting skills between non-Indigenous and Indigenous players. Ultimately, coaches and staff discouraged passionate or intense play by Indigenous team members because it was perceived as aggressive, while the same type of play by non-Indigenous individuals was described as assertive.

The display of assertive sport skills (tackling) and social skills (play fighting, wrestling) were often confused with rough play and his peers (especially non Aboriginal peers) discouraged the intensity of [name] physical contact and thereby their participation. (Kickett-Tucker, 2008, p. 143)

Many participants had accepted that racism was something that they would have to contend with in order to participate in sport, and one participant described just how rampant it is in the context of sport:

Everyone knows racism is bad and not all people are using it but the majority of people are doing it at all levels on the footy field. Administration to players to umpires to ... so I don't think a lot has changed even though a lot of people think it might. But on the footy field it hasn't. (Thorpe, 2014, p. 360)

Alternatively, participation in all Indigenous sporting teams was seen as a protective factor against experiences of racism and players felt more supported when incidents did occur:

I played at a white team a couple of years ago. There was racism happening on the sideline. They done something about it on the day. That was it, they didn't follow up with the other club or nothing. At the [team name] if you're being racist you're doing it to everyone on the field. They'll follow it up and make sure something is done about it. (Thorpe, 2014, p. 360)

Participants ultimately felt like their experiences transcended sport and the act of engaging in competitive sport was a form of resistance against racism, stereotyping, and discrimination.

Every week you play against the opposition, you play against the league, you play against the umpires and then you play against the crowd. It's not just like you're rocking up to a club and you worry about your footy and go home. Every week you rock up you're playing for a lot more. That's a big thing for me as to why I will play. Lot more than footy. (Thorpe, 2014, pp. 360-361)

Physical health benefits

A desire to maintain or improve physical health was a central theme across the studies. Thorpe (2014) reported that participating in team sports was more conducive to physical health than individual exercise and participants preferred this method of physical activity because of the peer support.

When you're out there on the track and they know you're struggling. It's good to hear, 'Carn bruz, keep pushing through'. ... They do it in a way that is reinforcing and positive. (Thorpe, 2014, p. 359)

Roberts (2017), Sasakamoose (2016) and Thorpe (2014) also found that participants perceived sport as a “cure-all” for a range of health concerns and a way to avoid or quit unhealthy habits like excessive alcohol consumption or smoking cigarettes.

It's a cure for depression, it can also be the cure for smoking. It gets you up and active, takes your mind off that dull thought and feeling, and desire for something that's wrong for you. To actively do something that's good for you. (Roberts, 2017, p. 2044)

The centrality of local sporting organisations was described by participants as a way to link in with other health and wellbeing services with one participant commenting:

You've got 70 Aboriginal men, 40 Aboriginal women and everyone else. There's the opportunity to do the health checks, which we do through the health service. There's the opportunity for smoking cessation program, all those other types of things. It's a place for people to go as well. Not everybody plays. People just like hanging around and being part of something. That improves their wellbeing too. (Thorpe, 2014, p. 360)

Social and emotional wellbeing

Sport and recreation was found to facilitate social and emotional wellbeing through a range of ways. Studies found that sports facilitated a connection to culture, development and expression of identity, expressions of gender, and stress reduction.

Connection to culture

All studies indicated that culturally safe and meaningful sport and recreation experiences were vital to the social and emotional wellbeing of participants, with one participant commenting:

I remember sporadic sport nights breaking out in my home community... I miss the sense of community that enabled me to be physically active... I need genuine interaction and personal engagement. I keep looking for that same sense of

community I experienced on my reserve to foster an active lifestyle while attending university. (Ferguson, 2016, p. 185)

Without access to traditional environments, practices and language, participants struggled to connect with their culture. In instances where sport and recreation environments facilitated these elements, participants suggested that they had healthier lifestyles than those who did not engage with their culture.

When we dance powwow we are at our healthiest. (Petrucka, 2016, p. 189)

Sport was said to facilitate connection to culture by providing individuals with a social meeting place and the means to participate in cultural activity. These environments were said to be crucial in participants' efforts to maintain culture.

I guess it's like sport's a part of culture in a lot of Aboriginal communities ... it's a rugby league culture around here. Even now, as a mother [with] my daughter, you know, mucking around with her with a ball and stuff like that and trying to teach her how to catch and kick a ball. (Stronach, 2016, p. 14)

Sport and recreation were perceived to be a form of cultural expression, and provided a safe place to engage with culture in a modern context.

It goes right back to the old days, when you first went out in the old days traditionally went out hunting kangaroos or the women chasing possums up the trees. They would make it an event. That's what football is, an event just like all the other cultural events that we did prior to the white man. (Thorpe, 2014, p. 359)

Learning about one's culture was facilitated by sports and recreation, and many studies found that these environments were the perfect space for communities to share knowledge (Hapeta, 2019).

An incidental outcome for the kids is learning about te ao Māori – they're out there playing this game which they love but at the same time they're actually learning the reo and the tikanga. We try to teach rangatahi to use Māori words and we expect them to teach other rangatahi and then to take it home to their whā anau.

(Severinsen, 2019, p. 296)

Identity

Sport was perceived to be a medium for participants to develop and express both individual identities, and identity within the sporting community and their Indigenous community. Engaging with other Indigenous peoples within a sport setting influenced participants' sense of self, self-esteem, and their Indigenous identity (Kickett-Tucker, 2008 and Lavallée, 2007). Participants who were immersed in their community expressed how this fostered resilience and pride within themselves and the wider community. It was also suggested that having these opportunities available allows those who are not connected to culture a way to engage and learn in a non-threatening environment. Participants felt that these environments developed their confidence and facilitated further exploration of their cultural identity.

You have those kids that have a real disconnect from who they are...so this is a way for us to help at that level to connect and give them pride in who they are and what they do. (Severinsen, 2019, p. 295)

These environments, where family and community are significantly involved, and participants play with their cousins, aunties, and other Indigenous people encourage cultural bonding and support cultural values and positive development and expression of Indigenous identity.

Playing with your brothers is a bit more than just playing in a team. We're actually representing our people, we're representing our community, we're representing our families. (Thorpe, 2014, p. 358)

Gender

Some participants discussed gender as it related to their experiences within sport and recreation. Women typically saw themselves as enablers to others' participation rather than engaging in sports themselves (Macdonald, 2012).

I'm the aunty that will take all the kids to their sports. I think that's part of the kinship.

That's what Aboriginal women bring to sport, the kinship. (Stronach, 2016, p. 10)

Participants also discussed how they present themselves as tough, strong, and on some occasions, mean, as a way to resist sexist and racist stereotypes. Several participants from Hayhurst's (2015, p. 962) study suggested that they must be an "*aggressive girl*" in order to engage in sport, or that they had to "*play like the boys*". Unsurprisingly, participants were acutely aware that if they were to play with the men, "*they were expected to maintain their femininity (e.g. by not playing too forcefully) while (paradoxically) also playing aggressively on and off the court/soccer pitch (e.g. by partaking in fights).*" (Hayhurst, 2015, p. 962)

Stress reduction

Sport and recreation activities were welcomed by participants as a tool for stress reduction and relief. Participants commented how regular participation in sports and recreation activities significantly impacted their stress levels.

It's like you dance it all off, you go crazy, you walk out and think oh that was full on, it was great. You walk out and you feel like OK I can handle another day. (Andrews, 2013, p. 33)

Participants specifically expressed how vigorous exercise felt like it was releasing stress not just mentally but also physiologically. When this was done in a group setting, such as organised sport, participants felt an immense release in stress.

They're all my culture, they're all Native. Even just going sitting there, listening to them talk. I always come home with such a light feeling because they share so many wonderful stories with me, and it makes me feel good and happy. (Iwasaki, 2006, p. 331)

Participants felt strongly that sports and recreation should be a significant part of their lifestyle and encouraged others to create a healthier lifestyle through sport and recreation.

Recreational sports are not only an important part of my life, but I believe it should be an important aspect in everyone's life. This is due to creating a healthier, more enjoyable lifestyle. (Sasakamoose, 2016, p. 644)

Community spirit

Community spirit and engagement was consistently cited as a meaningful part of the sporting experience. Participants described communities as safe places, an environment for supportive interactions, a place of belonging, and a place for family and friends.

Sport is community. On a team you have to communicate with each other and be like a family. You have to balance everyone out just for them to be happy and successful. (McHugh, 2015, p. 81)

One participant from McHugh's (2015, p. 79) study "*described how having a physical space where Aboriginal youth can come together provides opportunities for youth to interact, fostering a sense of belonging.*" This illustrates the importance of having appropriate facilities. Support within the community was a key element to the positive experiences of players, coaches, and staff within teams. Intergenerational engagement with sporting clubs

was seen to strengthen community spirit and participation and participants in McHugh's (2015) study described how they grew up playing sport with friends and now their children play sport with their friends' children. Participants shared how they perceived sport to promote a sense of community and how these environments foster belonging and social interaction.

There's the rugby league knockout, about 10,000 people go to it ... it's kind of took over the whole corroboree thing ... it's more just a modern way of getting together, bringing Aboriginal communities together, different families and different groups of families and groups of Aboriginal people, the clan all coming together. (Stronach, 2016, p. 13)

When playing within an Indigenous sports team, participants felt a great sense of belonging, community support, spirit, and esteem. These spaces were described as safe and comfortable, and feelings of ownership were expressed.

I always felt just a number... Here we felt like we belong, we belong to it, this is ours. There's a lot of ownership there for us. Playing at normal, other clubs there was never that feeling. With this club we felt like we're part of the ownership of it and we belong to it. (Thorpe, 2014, p. 358)

Studies also found that playing sports outside of their Indigenous community and being successful is highly valued, and a source of pride for their communities and the wider Indigenous population.

If [my son] can make this [Australian football] league here well I guess I'll be the proudest father in Victoria. And I don't think it would make only me proud, I think no matter who the kid is if he's Aboriginal, all Aboriginals are proud you know, we're all proud. (Thompson, 2000, p. 735)

Regardless of whether players were playing in all- Indigenous teams or not, participants had a strong sense of responsibility to represent their culture, and sports allowed them an avenue to define and express their cultural identity.

It was the only time you get 40 warriors to represent your mob... It was our one chance to give something back. Our chance to prove that we were good at something. There wasn't much chance at proving how good you was any other way. (Thorpe, 2014, p. 359)

Participants noted that with this sense of responsibility comes significant pressure and high expectations, with one participant explaining “*we would have more roles than we would at a mainstream club. At our club you're a worker, you're an uncle, you're a parent, and you're all these roles*” (Thorpe, 2014, p. 360). Participants also found themselves highly accountable to their team mates and the larger club community, with participants from Warbrick's (2016) study often referring to the ‘bros’ around them and the comradery they shared.

Leadership and role models

Leadership and role models featured in the studies as a key element to the success of sport and recreation clubs being a positive space for Indigenous peoples. Active coaches, team members, and elders were found to promote communication, understanding, and support for individuals. Leadership and role modelling from older players was said to be beneficial in strengthening cultural identity for the younger team members.

Often younger siblings watched the older ones play and wanted to learn. This opened up opportunities for rangatahi to pass on their knowledge within their wha-nau, to organize games and teach the kaupapa about each activity. (Severinsen, 2019, p. 294)

Participants also talked about the importance of Indigenous people looking up to Indigenous role models, in both professional sport and at home within families with one participant saying *“if the younger kids keep seeing us doing it they’ll want to do it when they get older. We got to be role models.”* (Thorpe, 2014, p. 360)

Elders in Indigenous communities are highly respected and hold great cultural wisdom. When elders were involved in community sport and recreation, participants expressed that they were more motivated, engaged, and felt more connected to one another and their culture.

[Elders] foster a sense of accomplishment in youths’ sport participation. Recognition from elders is an affirmation that important community members are behind the youth as they face challenges and successes in their activity (Blodgett, 2010, p. 273)

Meta-Synthesis

Given the populations included in this review and the themes inductively identified through the meta-data analysis, the Aboriginal and Torres Strait Islander Social and Emotional Wellbeing model (Gee et.al, 2014) was used as a framework for the final meta-synthesis. This model defines social and emotional wellbeing as a holistic, multi-dimensional concept of health that encompasses spirituality, connection to country, and family, among others. The model outlines contributors to the social and emotional wellbeing of Indigenous people, and how wellbeing is influenced by social, historical, and political determinants. It is important to note that not all Indigenous people or communities subscribe to the same concepts, or these concepts specifically, but this model simply provides a lens to understand and interpret results. By situating the results of the review within the social and emotional wellbeing model, we gain a greater understanding of how sport and recreation is experienced by Indigenous people and in-depth insight into the complex ways in which these experiences are influenced by the different determinants. By understanding the results of this review

through a social and emotional wellbeing model we can draw parallels between cultural values and the mechanisms that either promote or exclude them by engaging in sport and recreation. It is also important to apply a theoretical framework to the findings of this review in order to make theoretically informed conclusions and inform future research and best practice.

Participants explained how sports and recreation environments can be conducive to strengthening cultural values, usually by promoting interpersonal relationships, providing opportunities to develop and express cultural and personal identities, fostering a supportive environment to learn and engage with cultural practices, and promoting resiliency within individuals and the community.

There were a variety of social, historical, and political determinants that acted as barriers, or conversely, facilitators to engaging in sport or recreation, and significantly impacted the experiences of those who engage in sport or recreation. Participants discussed how socioeconomic factors were major barriers to engaging in sport and recreation, and the historical and political circumstances that initiated and perpetuate these socioeconomic troubles. Participants also explained how racism and discrimination are a significant barrier to both engagement and enjoyment of sport and recreation, but also how it can be fuel to engage and become successful within this context. Participants who played in all-Indigenous teams found the environment to be crucial to the development of resilience within their communities, and this became a significant protective factor to buffer against the negative impacts of cumulative racism and discrimination.

Finally, participants described how sport and recreation were a positive influence on their physical health. Sport and recreation activities provided participants with an opportunity to connect to their body through physical movement, and the social environment of sport and

recreation clubs mean that participants were more likely to attend consistently due to a strong sense of accountability to their team-mates and the wider community.

Discussion

This is the first meta-synthesis of qualitative research examining the sport and recreation experiences of Indigenous peoples in Australia, New Zealand, Canada, and the United States. The aim of this study was to explore Indigenous people's experiences of engaging with community sport, examine how Indigenous people perceive community sport as it relates to biopsychosocial health, and assess the current state of Indigenous community sport and health research in regards to methodological rigor and cultural safety. The findings of this review indicate the importance of enabling sport and recreation opportunities and facilities available within Indigenous communities and urban centres where Indigenous people can connect with each other and their culture. This review identified multiple barriers and facilitators to engaging in sport and recreation for Indigenous communities that aligned with social, historical, and political determinants of health. By working to address these barriers and promoting facilitating factors, communities, clubs, local governments, and policy makers can strive to enrich the sport and recreation experiences of Indigenous communities worldwide. Sport and recreation clubs, local governments, and policy makers could do this by drawing upon the Social and Emotional Wellbeing model of Indigenous health (Gee et. al., 2014) to ensure that strategies to enhance sport and recreation experiences and opportunities are implemented within the various elements of Indigenous wellbeing.

Some of the themes that emerged from the meta-data analysis were consistent with those from a 2016 systematic review by Bruner et al. who explored international research examining Aboriginal youth development in sport and other physical activity settings. Specifically, there were similar findings relating to the barriers that negatively impact on the sport and recreation experiences of Indigenous people, and how integrating Indigenous values

and practices can improve these experiences. Findings from the present study align with those from McHugh's (2019) meta-study exploring sport and recreation experiences of Indigenous youth in Canada, especially regarding the importance of connecting to culture and the potential holistic benefits of engaging in sport and recreation. Despite similar findings, our study makes unique contributions to the literature by emphasising broader sport and recreation experiences, focussing on in-depth qualitative data, assessing the methodological strengths and weaknesses of the literature, and assessing how researchers engaged in Indigenous research. The present study includes articles from four countries with a colonisation history, and therefore multiple Indigenous populations, as well as the experiences of children, teenagers, and adults.

Particular strengths of the studies included in this review were their reporting of purposeful sampling, the detailed description of qualitative methodologies, reporting of appropriate methods of data generation and analysis processes, and detailed descriptions of member checking procedures. Studies conducted appropriate consultation and engagement with communities, followed and respected community protocols, were guided by Indigenous research paradigms, and employed strengths based approaches.

Discussion of the weaknesses of the current literature are useful to inform the design of future studies and improve the methodological rigor of qualitative studies. Just over half of the studies included for review reported a clear theoretical approach or perspective.

Studies rarely described the background of the research team, nor did they situate themselves within the studies to provide readers an opportunity to draw conclusions about potential biases in the conception, analysis, or interpretation of the study findings.

Researchers should explicitly discuss their background and involvement within the project in order to be transparent about how they are meeting professional and personal duties, and the

biases that may arise, whilst meeting community needs (Snow et al., 2016). Although studies discussed colonisation and its impacts on social, political, and historical determinants of Indigenous health and wellbeing, some studies did not employ decolonising research methodologies, and results from the studies were not discussed within this context. Few studies explicitly accounted for trauma responses existing towards the individual researchers or research process, which could affect the quality of participant's experiences and, if not mitigated, could cause re-traumatisation of Indigenous communities. There was a lack of Indigenous lead researchers and governance, a lack of negotiation and agreement regarding the ownership of existing intellectual and cultural property and those created by the research, a lack of demonstrable capacity building within the communities where the research took place, and a lack of clarity as to whether researchers translated findings into sustainable policy or practice changes. These weaknesses serve as guidance for the improvement of future research practices.

Limitations of the present study

As with many meta-study approaches, the researchers were dependent upon materials and evidence included in the published articles which can be limited by journal reporting structures and restrictions. Another limitation to the present study is the risk of decontextualising data from the original studies (Paterson et al., 2001). By not providing details of the specific communities or individuals when presenting quotes from participants, there is a possibility that data can be open to interpretation. We sought to address this by providing the country from which each quote originated. Additionally, the abstraction of data was checked by two members of the research team, other than the primary researcher to ensure congruency between the data and interpretations.

This review was conceived as part of a broader resilience and wellbeing project being conducted in regional Victoria, Australia and is intended to inform a resource development aspect of the project. As such, this review was conducted in Australia with an all Australian research team, therefore the conception, analysis, and interpretation of the findings were inevitably from an Australian perspective.

Regarding the initial search, although health and wellbeing, and population term conventions are widely recognised, there exists a broad range of terms to describe sport and recreation. Although the present study sought supervision from an expert in information systems and review methodology, and searched each study's reference list for possible studies in order to mitigate risk, there is a possibility that potentially relevant studies were excluded at the initial search stage.

This review included studies from Australia, New Zealand, Canada, and the United States and there was homogeneity between studies from each of these countries, suggesting that some shared experiences connect Indigenous peoples internationally and findings can be considered transferrable. Despite this, quality in-depth research with specific communities is still considered best practice to gain an understanding of individual community strengths and needs.

This study serves to inform policy makers, sport programmers, leadership groups of community sporting clubs, and other institutions that provide sport and recreation facilities. In order for Indigenous peoples to reap the holistic benefits that community sport can promote racism and discrimination needs to be addressed appropriately, and in a manner that supports the wellbeing of Indigenous players and community members. There are several guidelines, policy documents and anti-racism resources developed for sport and recreation contexts in the countries included in this review and these should be drawn upon and

enforced at every level of sport from junior club sport to elite international sporting events. Indigenous leadership and reference groups should be developed and nurtured within community sporting clubs to support Indigenous players and foster community spirit. Anti-racism as a guiding value and framework for community sporting club policies would be beneficial to promote healing, decolonisation and equity for Indigenous communities engaging in sport (Came & Griffith, 2018).

Statement of Contribution

The research project was conceived in collaboration with the research supervisors and REDACTED Football and Netball Club. With advice from supervisors and an external information systems and review methodology expert, I then designed the search strategy and the review methodology following best practice principles. I conducted the search and systematically reviewed each article at abstract and title level, and full text review. The research supervisors reviewed a 10% subset of these articles each to ensure methodological rigor. Disagreements were resolved through discussion with the research supervisors. I extracted the data from the included studies and conducted the analysis. I refined the results after discussion with the research supervisors as is best practice and I wrote up the thesis.

Declaration of interest

The author has no potential competing interest to report.

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Appendix A- The CREATE Critical Appraisal Tool

ABORIGINAL AND TORRES STRAIT ISLANDER QUALITY APPRAISAL TOOL

Answer either "Yes", "Partially", "No" or "Unclear" to each question

Article citation: _____ Date: _____

Reviewer's name: _____



Question	Yes	Partially	No	Unclear
1. Did the research respond to a need or priority determined by the community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Was community consultation and engagement appropriately inclusive?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Did the research have Aboriginal and Torres Strait Islander research leadership?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Did the research have Aboriginal and Torres Strait Islander governance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Were local community protocols respected and followed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Did the researchers negotiate agreements in regards to rights of access to Aboriginal and Torres Strait Islander peoples' <u>existing</u> intellectual and cultural property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Did the researchers negotiate agreements to protect Aboriginal and Torres Strait Islander peoples' ownership of intellectual and cultural property <u>created</u> through the research?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Did Aboriginal and Torres Strait Islander peoples and communities have control over the collection and management of research materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Was the research guided by an Indigenous research paradigm?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Does the research take a strengths-based approach, acknowledging and moving beyond practices that have harmed Aboriginal and Torres Strait peoples in the past?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Did the researchers plan and translate the findings into sustainable changes in policy and/or practice?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Did the research benefit the participants and Aboriginal and Torres Strait Islander communities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Did the research demonstrate capacity strengthening for Aboriginal and Torres Strait Islander individuals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Did everyone involved in the research have opportunities to learn from each other?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Harfield, S., Pearson, O., Morey, K., Kite, E., Canuto, K., & Glover, K. et al. (2020).

Assessing the quality of health research from an Indigenous perspective: the Aboriginal and Torres Strait Islander quality appraisal tool. *BMC Medical Research Methodology*, 20(1). doi:

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Appendix B- Qualitative Research in Sport, Exercise and Health, Instructions to Authors

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Please note that long quotations should be indented without quotation marks.

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