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An exploration of management perspectives on wellbeing outcomes in the aquatic and recreation industry

lan O'Boyle^a, Leila Heckel^a, Adam Karg ^b, Rochelle Eime ^{c,d} and Heath McDonald ^e

^aUniSA Business , University of South Australia, Adelaide, Australia; ^bSwinburne Business School , Swinburne University of Technology, Hawthorn, Australia; ^cFaculty of Health, School of Science, Psychology and Sport, Federation University Australia, Ballarat, Australia; ^dInstitute for Health and Sport, Victoria UniversityInstitute for Health and Sport, Melbourne, Australia; ^eSchool of Economics Finance and Marketing, RMIT University, Melbourne, Australia

ABSTRACT

Public aquatic and recreation centres are a cornerstone of leisure infrastructure within Australia. However, the extent to which these facilities set community well-being as a specific strategic goal or measurable outcome is unknown. This paper adopts a qualitative exploratory approach with the aim of understanding key issues and challenges within these centres relating to obtaining well-being outcomes. Findings highlight a unique and challenging industry due to competing pressures and the often difficult relationships between these facilities and government. Critical factors impacting the focus on wellbeing employee engagement, technology, the environment, and diversity and inclusion. Further, wellbeing benefits vary for different user groups and commercial/financial pressures can impact wellbeing outcomes. In conclusion, this paper provides an important contribution to the leisure literature but also establishes a research agenda for further investigation that will both contribute to scholarly understanding and provide industry with new insights for evidence-based decision making.

ARTICLE HISTORY

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KEYWORDS

Wellbeing; aquatic and recreation; community sport; management

Prior to the onset of the COVID-19 pandemic, many countries were already being confronted by an obesity epidemic (Parliament of Australia 2018) and a rising tide of mental health issues (Harvey et al. 2017). Both are associated with an increased sense of social isolation (Beer et al. 2016), poor levels of physical activity (Eime et al. 2013a) and a growing sense of loss of community. The impact of COVID-19 restrictions on community engagement and access to physical activity and leisure has only exacerbated these issues. As nations around the globe ease COVID-19 restrictions, community and policy leaders have an important role to identify how public infrastructure can provide services that deliver various forms of positive outcomes.

This paper seeks to establish an initial first step to address these issues, focussing on the impact of one specific type of community/social infrastructure in the Australian context – public aquatic and recreation centres (PARCs). Social infrastructure is an

important component of connection and wellbeing outcomes (Davern et al. 2017). Social infrastructure is defined as 'essential services that create the material and cultural living conditions for an area' (Davern et al. 2017, 195). This includes PARCs and their contribution to the wellbeing of individuals and Australian communities. To explore the key issues and challenges associated with delivering wellbeing outcomes, we employ a qualitative exploratory method through interviewing PARC managers as a foundation for a more detailed research agenda to emerge in an attempt to further understand key areas for investigation.

This area of exploration is warranted on several levels not least because there has been a dearth of new literature in this domain. PARCs are a unique piece of social infrastructure in Australia given the significant investment of public finances that are required to construct and operationalize these facilities. Almost all major urban centres throughout Australia have invested in the development of these facilities and they are seen as important public spaces for community engagement and connection. In addition, government investment in PARCs is extensive and often on the premise that they improve wellbeing, but little evidence-based data exists to support that notion. Further, from an industry perspective, this research will help to advise on a best practice approach for maximizing the social impact of these facilities across the entire value chain delivering PARC services in Australia, which include council and local governments, centre operators (at the organizational level, as well as managers and employees), and crucially, diverse community user groups. This will be a significant novel contribution to the leisure literature which can inform future studies and indeed assist PARCs and policy makers in evidence-based decision making moving forward.

Literature review

There have been a limited number of studies focussed in the leisure domain that have explored tangentially related areas to the specific context and focus of our work such as social return on investment (Davies et al. 2021) and quality of life related to older user groups in aquatic and recreation facilities (Wang 2021). Furthermore, both industry reports (e.g. PWC 2021) and academic research (e.g. Stanway et al. 2020) have recently provided econometric data on the value of the aquatic and recreation industry specifically to state and the national economies. However, as with most econometric models, these studies focused on readily available data and metrics but lack the direct voice of the stakeholders including management and community user groups that allows an in-depth understanding of subjective wellbeing in these centres.

Wellbeing, itself as a concept related to leisure pursuits has been receiving increasing attention in scholarly conversations over the past decade. An examination of this existing literature provides various definitions of wellbeing including concepts related to positive psychological functioning and human flourishing (eudaimonic perspective), and life satisfaction, positive affect and happiness (hedonic perspective) (Dolan and Metcalfe 2012; O'Neill 2006; Vernon 2014). Ultimately, there is no one agreed definition of wellbeing within the literature and the term remains broad depending on the various contexts within which it is being discussed (Daykin et al. 2017; Mansfield, Daykin, and Kay 2020). Equally, along with the multidimensional and broad definitions of wellbeing come various proposed theoretical and conceptual ways in which to measure wellbeing

(Gibson 2018). Previous studies have used different forms of self-report questions that are aligned with various meanings of wellbeing (Oman and Taylor 2018), but few have attempted to explore this from a mixed method or qualitative perspective, such as in the current paper.

Social and emotional wellbeing

Wellbeing has been further unpacked as a concept that can relate to the social and emotional health status of individuals and communities. Broadly, social and emotional wellbeing is defined as the way a person thinks and feels about themselves and others (AIHW 2012). There are many health benefits associated with regular participation in leisure-time physical activity. These health benefits are not limited to physical health, but also include mental health benefits (The Department of Health 2019). However, as Eime et al. (2013a) highlights, there is less research focusing on the social benefits, such as wellbeing, associated with participation.

In a systematic review of the psychological and social benefits of participation in sport for children and adolescents, a range of benefits were reported including social and emotional wellbeing, and social connectedness (Eime et al. 2013a). Using the same methodology, another systematic review reported that the benefits of participation in sport for adults included improved wellbeing, social functioning, life satisfaction and sense of community (Eime et al. 2013b). This study reported that time spent in leisure activities can provide a range of benefits including positive effects on wellbeing and social connectedness. Longitudinal studies report that the frequency of engagement in leisure activity or sport is important for positive changes in wellbeing (Wheatley and Bickerton 2019).

Although community benefits through increased levels of wellbeing can occur inherently through participation in aquatic and leisure centre activity, a more targeted approach based on evidence could lead to a proactive role in enhancing mental wellbeing (Ferguson et al. 2018). There is a lack of understanding around how experiences and engagement within the aquatic and recreation industry impact wellbeing, and little evidence of evaluation of policy and programme responses.

The current context for PARCs in Australia

Local council or state-owned PARCs are key pieces of social infrastructure, fostering sport and leisure activities for many Australians. The construction of such facilities often comes about because of political mandates particularly in an advanced neoliberal society such as Australia. There is little evidence however that documents the treatment of the public interest around the planning and management of such infrastructure particularly around the community outcomes sought as a result of their construction (Searle and Legacy 2020). From an econometric perspective, some evidence does support the benefits of constructing such facilities. A recent industry report (PWC 2021) suggested that the Australian aquatic industry benefits the Australian economy through the employment of 34,000 workers and adds almost \$3 billion to national GDP. The report also argued that the industry generated \$2.5 billion in health-related benefits such as reduction in the burden of disease, improved mental health outcomes, and a reduction in absenteeism. The report also suggests \$3.8 billion of social benefits including: increases in leisure time and satisfaction with life; providing support for vulnerable and

disadvantaged communities and positive impacts on early learning. Academic research has also supported that PARCs provide many benefits to people and communities, which include managing stress, better mental and physical health, and opportunities to be more socially connected (Howat et al. 2012; Howat and Assaker 2016). Most urban populations live within 5 km of a PARC, many of which represent one of the largest capital investments for local councils – some new facility construction costs as high as \$50 m (Howat et al. 2012). Although the exact number of annual visits to PARCs across Australia is unknown, one industry report from Western Australia (population: 2.7 m) estimated there were 11.4 million visits in the state annually (Royal Life Saving WA 2018). Similarly, in Victoria (population: 6.7 m) there were reportedly more than 70 million visits to facilities in 2016 (Victorian Water Safety Assembly 2016) with \$933 m of taxpayer funds spent on the aquatic and recreation industry between 2016 and 2020 (Victorian Auditor General Office [VAGO] 2016).

Many aquatic and recreation centres have evolved to incorporate multiple, diverse activities and facilities including sport courts (e.g. basketball or tennis courts), spas, saunas, gymnasiums, swimming, and water play areas. The majority of PARCs throughout Australia work on 'user-pay' models, but commonly do not generate profits or even cover operating costs (Howat et al. 2012). This raises the important question of why such significant levels of both taxpayer and council rate payer funds are invested into this sector. In the absence of large-scale evidence-based data, there is an assumption that PARCs are a key component of public good and are seen to play an important role in the communities they serve in terms of the benefits that they provide (Tower, McDonald, and Stewart 2014). However, these benefits and how PARCs deliver them remain unclear.

Given the significant costs involved in facility construction and maintenance, there is pressure on the industry to justify their impact with reference to their community benefit. A VAGO (2016) report found that PARCs focus on the reporting of outputs rather than broader social and economic outcomes, measured by metrics related to user numbers and the volume of attendance, rather than impact.

Undertaking a detailed investigation of the industry to understand the nuances within different centre models and some of the key factors at play in determining the wellbeing benefits for communities is an important next step in this research domain.

The current research focuses on this area through an examination of the perceptions of managers working in this domain and their views on critical aspects related to wellbeing outcomes within aquatic and recreation centres. This qualitative work is an important first step in understanding the complexities and challenges faced by the industry in this regard and will help to establish a broader research agenda moving forward where a more acute examination of heterogeneous user groups and associated outcomes can be explored in more depth.

Method

The study described here presents a foundational setting for examining well-being outcomes within the aquatic and recreation industry within Australia. Fittingly as an initial step, an exploratory qualitative case study centred on the perspectives of seven managers with responsibility for 15 PARCs within Australia was adopted. Case studies are

a recognized form of rigorous qualitative investigation and although the aim of a case study is not to directly extrapolate findings to other settings, findings can help to inform future research and illuminate similar issues that may be faced across several similar contexts.

The participants in this research are key stakeholders whose daily lives revolve around the management and operations of such centres and as a result have an inherent understanding of the issues surrounding the subject matter. The sites and associated managers were selected to represent a mix of PARCs in both urban and regional areas across Australia. Recruitment of PARCs took place via existing professional relationships the research team had within the industry and a purposive sampling method was employed to ensure PARCs of varying size and location (across five Australian states and territories). All recruitment and data collection activities have been approved by an ethics committee and participants were given information sheets and consent forms to sign prior to data collection.

Data collection

The data collection process involved seven semi-structured interviews taking place over a two-month period in 2021. All seven managers were male and ranged from mid-career to experienced managers (greater than 10 years) within the industry. Interviews ranged from 45 min to 1 h and 30 min. Interviews were subsequently transcribed verbatim using a software package while also being verified for accuracy by the research team. A total of 26 pages containing 13,009 words of single spaced 11pt font were generated which formed the foundations of the qualitative data. Along with the interviews, a mapping tool based on centre audits of all 15 PARCs were conducted as part of background research to prepare the interview guide. This also helped us to better understand the range of facilities and programmes offered within these sites which helped to inform the interview guide as the main data collection instrument.

Instrument

The interview guide was developed through an examination of the existing literature in the field combined with the centre audits and further records supplied by the participating PARCs (e.g. operational plans and annual reports). Documentation at the wider council/local government level related to health and wellbeing was also examined to ensure the research team could ask questions that would illicit the type of data we wanted to explore. For the interview guide, standard protocols were followed (Weiss 1994) for semi-structured interviews of this nature, with initial questions being broad, and more probing questions subsequently being posed. An example of the questions posed to participants during the semi-structured interviews included: 'How would you define 'wellbeing' in relation to the usage of public infrastructure such as public aquatic and recreation centres?' (broad); 'From a wellbeing perspective, what benefits do you think users receive from attending your centre?' (broad); 'What specific measurements do you use to assess user wellbeing outcomes at your centre?' (focussed).

Analysis

An interpretive process was adopted for data analysis which did not include the use of software applications. The process of analysis was spread across two researchers. Sentences and passages with similar opinions, views, phrase, and sentiments views were combined to form an initial process of open coding.15 themes were generated here with constant referral to the existing literature and the aim of the research taking place. Examples of these initial groupings included: General Wellbeing Outcomes; Barriers and Constraints; Varying Management Models; and Usage Type versus Frequency. An open axial selective coding process followed this, where themes were further amalgamated and collapsed into refined themes (Maxwell 2013; Thomas 2006). This formed the final thematic structure presented in this paper. The final themes that emerged are shown in Table 1 below and comprise: 'PARCs, Councils, and the Community'; 'Enablers and Inhibitors of Wellbeing Outcomes'; 'Wellbeing Outcomes are not Homogenous'; 'Purpose versus Profit'; and 'PARCs versus Community Sport'. Table 1 below shows how the initial 15 themes were condensed into the five major themes that form the focus of the results and discussion. In order to de-identify interview participants and to ensure responses remain confidential, quotes are represented by P1-P7.

Results and discussion

Parcs, councils, and the community

There was consensus that PARCs play a crucial role in fostering individual and community wellbeing within their respective communities. It was argued that not only the health benefits of attending a PARC and using facilities such as the gymnasium or swimming pool were impactful, but the act of attendance alone often resulted in social engagement with staff and other members of the community, which helped to foster a sense of connection that can contribute to overall wellbeing: 'It's that connectivity that they're looking for and feeling part of the community' (P6).

Table 1. Coding.

Initial codes	Axial coding to help identify themes for current paper
1. Wellbeing outcomes	1. PARCs, Councils, and the Community
2. Patterns of usage leading to wellbeing outcomes	
3. Relationships and reporting to councils	
4. Linking into community wellbeing plans	
5. Barriers for delivering wellbeing outcomes	2. Enablers and Inhibitors of Wellbeing Outcomes
6. Role of employees in facilitating wellbeing outcomes	
7. Technology and the user wellbeing experience	
8. COVID-19 impact on wellbeing	
9. Different wellbeing outcomes for disparate user groups	3. Wellbeing Outcomes are not Homogenous
10. Programmes specially designed to deliver wellbeing outcomes	
11. Measurement of wellbeing outcomes	
12. Remote/regional versus metropolitan based PARCs	4. Purpose versus Profit
13. Commercial outcomes versus wellbeing outcomes	
14. Management models and their impact on wellbeing outcomes	
15. Wellbeing within PARCs versus other forms of sport and physical	5. PARCs versus Community Sport
activity	

The limited research in this space has predominantly focussed on wellbeing as a result of physical activity (Stanway et al. 2020), with less focus on social connection and engagement that contribute to individual social health and wellbeing. Frequency of visitation was also a key variable, with regular attendance (multiple times per week) seen as optimal for maximizing wellbeing outcomes. Some managers either explicitly or implicitly suggested that the benefits achieved through PARC usage could be somewhat unique to other forms of sport and leisure activities. For example: 'We have, obviously, the social benefits of attending, social interaction, being part of a community and connecting into a community as well' (P1); 'If they're more active more often, wellbeing outcomes will be greater ... that's tied into their frequency of visits' (P1);

The physical things are important, but they can get those anywhere. You can go for a run outside, you can go on your bike, you can get physically fit elsewhere, but you can't create that sense of community without coming to the centre and joining a sports team, coming for a swim, coming out with your friends, all those types of things. (P4)

The importance and alignment of operational and strategic goals of PARCs with broader council health and wellbeing plans was also evident. It is considered standard practice for most local councils throughout Australia to have such plans in place and high-cost infrastructure such as PARCs are often seen as key mechanisms to help realize objectives within these plans: 'They're [wellbeing plans] extremely relevant for our sector, because again, we're the enablers ... we're basically the troops on the ground ... we are the frontline service model of the plans' (P1).

What was less evident regarding these council level health and wellbeing plans was key reporting arrangements, with PARCs generally afforded autonomy in terms of how they interpret and try to address various issues within these policy documents: 'The actual delivery of what programmes we run, where we target areas ... that's very much done at centre level' (P3); 'We get far more, I guess, control or autonomy over our programming and services ... there's no specific reporting requirements. So, it's not a high level of investigation or interrogation of our outcomes' (P2);

We're actually in the process at the moment of creating a new health and wellbeing plan ... and the idea of that one is that there will be a lot more interaction between the likes of our facility and the outcomes of the health wellbeing plan, so yeah, it will be a lot more moving forward. Historically, there hasn't been a great deal of alignment. (P7)

The reporting arrangements between PARCs and councils varied across the group, with some simply having to report back on financial outcomes and budgets, while others required more in-depth reporting around the programming and associated impact such programming and services may have on social impact including community wellbeing, but without specific measurement of the impacts: 'They submit a yearly service plan to [the State government] and then through that process, they talk about what offerings that they're going to have' (P6); 'We also have operational plans and upper operational reports that go up to Council on a monthly basis, that are full of KPIs and milestones' (P3); 'Our reporting needs to change ... because we're looking at cost per visit rather than the health outcomes' (P1).

Enablers and inhibitors of wellbeing outcomes

It was clear through the data collected that there were several significant enablers and inhibitors that impact wellbeing outcomes of users of the centres. The findings suggested that the most prominent of these factors were the role of employees in generating positive user experience, the extent to which technology has been adopted in centres, diversity and inclusion strategies to cater for a broad range of community groups, and the quality of the built environment at these pieces of infrastructure.

Employees

Given the general view was that engagement and connection was as much if not more of a driver of wellbeing than physical health benefits alone, the relationship and engagement users have with PARC employees was seen to be important. Acknowledged by some managers:

I believe they are enablers, they're the biggest part of outcomes, our community, our people, and investing in those.... when they're highly engaged, we create great outcomes, and working on engagement is key for us (P1)

Anecdotally, it appears that the industry is synonymous with high turnover of staff across many levels of the sector. With employee engagement an important driver of wellbeing, this presents a critical issue given relationships between staff and users can take time to develop. Retention strategies for staff is therefore a pressing issue for PARC managers to address. Likewise, the training and upskilling of staff may further increase wellbeing outcomes amongst the broader user group: 'Investment in our people has to be the number one priority for all stakeholders to ensure the community gets the best service that it can' (P1).

The remote location of many PARCs in regional areas also presents challenges in terms of recruitment and retention of suitably qualified staff, which the participant group believed could have a negative impact on wellbeing outcomes: 'So for us getting access to new staff and experienced staff in that sort of health and wellbeing area is not easy' (P7); 'We're always dealing with those aspects of remoteness to ensure that we've got enough troops on the ground to be able to deliver the programmes and services that we need to achieve those outcomes' (P4).

Technology

The onset of the COVID-19 pandemic required many PARCs across Australia to shut down for several months. For most PARCs this resulted in little engagement with their users during that period, coupled with significant membership and revenue losses. However, many PARCs were able to successfully adopt an online presence to run programmes such as virtual fitness classes and online challenges that allowed for continued interaction between employees and users. This speaks to the importance of PARCs being technologically savvy and presents an opportunity for an alternative way in which to deliver services to maintain user wellbeing. Indeed, in the existing literature there has been a growing body of work that focusses the use of technology as a positive factor that could improve wellbeing (e.g. Cahill, McLoughlin, and Wetherall 2018). The quotes from managers below highlight the varying degrees of success PARCs have had adopting

technological platforms in this space: 'The biggest impact of the pandemic has been loss of members. And it's highlighted how far behind we are in technology ... realistically our user experience from technology in the leisure centres is quite poor' (P1);

Our leadership team got together alongside our communications team and put together a suite of materials to allow at-home workouts and, and other stuff that could be completed at home ... we had classes being delivered online, live three times a day, from our instructors from their house, and any member could at any time, log in and do those classes. (P4)

Diversity and inclusion

There are clearly some important processes and practices that may help to facilitate high levels of wellbeing outcomes amongst PARCs users. But perhaps more salient, is to examine the constraints that inhibit those wellbeing outcomes being received by the broader community. There was a general view from managers that PARCs could do a better job of being more diverse and inclusive when it comes to offering programmes and services that reflect the culturally diverse demographics present in modern day Australia:

Our own centre doesn't reflect the demographic of our municipality. New communities come in and they do different things, and we don't necessarily adapt to those programmes, and we don't have the facilities for the programmes that they may be undertaking in, in the countries they were born in. (P2)

Recent work by Donaghy and Perales (2022) has highlighted how diversity in the work-force can have wellbeing benefits for both employees and other stakeholders interacting with organizations. Reflecting this, within the current research, there was an acknowledgment that staff demographic profiles within the industry could be more diverse which may help to make PARCs a more welcoming environment for people of culturally and linguistically diverse backgrounds: 'We like to think we have to focus on local employment, representing the local community. But we know that in reality, we are still not there because our entire management team is white' (P2).

Built environment

A further potential inhibitor for wellbeing outcomes raised by managers was the built environment of PARC infrastructure. Significant investment is required to construct and maintain facilities: 'Our hands are tied with the age of the centres, what there is there at each of the centres, what we can deliver' (P6); 'We only have one court, so we really need five, our gym is only 200 square meters, but we've got 1700 members on a 200 square meter gym' (P4);

... the users' experience, they want wellbeing classes that have the environment that is soft and quiet, enjoyable, because that's what the class delivers, that ambience. And then you've got the high energy classes that are high energy. So, if they're going to run at the same time, they need people to be well apart (P1)

Participants discussed how future designs of PARCs need to take issues such as those above into account, where facilities can cater for the diverse range of services and programmes that are sought after by the community, and which by extension, may maximize wellbeing outcomes within the user group: 'We need to future proof the design to incorporate these into our designs, rather than to say "there's a room, put some gym equipment in there"' (P1). The concept of PARCs being a hub where allied health services

were co-located was also put forward in terms of future designs to maximize wellbeing outcomes:

'Moving forward it would be really nice to see sort of allied health professionals to be involved with our centres. But you know, obviously, there's no sort of a combination on the sites as we currently speak to be able to cater for that'. (P6)

Wellbeing outcomes are not homogenous

PARC membership is typically representative of the broader community with demographics ranging widely in terms of gender, age, and cultural background. Therefore, it is understandable to assume that a 'one size fits all' approach to wellbeing may not be successful with such a diverse user group. For instance, a competitive athlete may use the gym to train and fulfil their wellbeing outcomes in that manner, whereas an elderly person may attend a yoga class where they engage with friends and staff and achieve similar levels of wellbeing outcomes. Catering for diversity and providing varying strategies for wellbeing outcomes appears to be necessary for PARCs to be successful in this space.

Youth

Recent research has explored wellbeing benefits for youth members of the community, finding that those who participated in sport and physical activity had higher levels of subjective wellbeing compared with those who did not participate (Wilson et al. 2022). Some PARCs in regional locations have developed specific strategies to engage with young members of the community in an effort to provide programmes and services that interest them and keep them engaged with the PARC: 'We have a youth engagement strategy within our facilities, and especially displaced or at-risk youths, you wouldn't normally get those types of programmes in a metro area' (P4). This participant believed that such strategies not only positively impact youth mental wellbeing, but also have an impact on crime rates and antisocial behaviour within these remote communities.

Elderly

Reflecting some findings in existing research for elderly user groups, the overwhelming consensus in our research was that although physical activity through programmes such as aqua aerobics, and yoga were important, the social engagement and connectedness with employees and other users contributed most significantly to user wellbeing (Steele et al. 2017): 'The class is about being active, but it's just about being together. It gets people, I suppose semi retirees and retirees back into conversations with each other and connecting into the community through the programmes' (P1); 'We have a number of older classes and for a lot of people that come and attend those, it's one of their main opportunities to actually get together with other people, their friends, the same age, and socialize' (P7).

Diverse communities

Along with youth and elderly strategies as noted above, some PARCs have successfully developed other specific strategies for engaging with a wide range of demographics to foster wellbeing outcomes within vulnerable and disadvantaged communities, disabled or injured members of the community, culturally diverse users, and even seasonal or 'fly-in fly-out' user groups: 'We see those members of the community that are most disadvantaged getting the greatest benefit by engaging in physical activity and attending a leisure centre ... social inclusion can be provided in a range of facilities and services' (P2); 'We know people come in who have cerebral palsy, motor accident victims ... so they come in with some extreme things. Once they start to exercise with that group through the health plans, they feel they're part of the furniture' (P5); 'We did trial a programme, a specific targeted programme, at one of our sites a little while ago that was for the Muslim community, where we had male only and female only sessions' (P6);

The lifestyle of a fly-in fly-out worker or miner or somebody driving trucks is pretty bad. And so, having facilities like this are just so important in terms of maintaining the health and wellbeing of those that are at significant risk. (P4)

Lack of measurement

Although it appears that some PARCs are successfully targeting various demographics and tailoring programmes relevant to those groups, there was little evidence of programmes being run that specifically had the goal of increasing wellbeing within those groups. Rather, it was perceived that by taking part in such programmes, wellbeing outcomes would naturally come about: 'In my view, programmes are not designed to achieve wellbeing outcomes, programmes are designed to basically get people in the door. They focus on attendances as an output rather than wellbeing as an outcome' (P1); 'Do we do it with the intent of having wellbeing outcomes? Probably not consciously. It's not a conscious decision' (P3); 'I suppose it's not really a designated or a targeted wellbeing outcome, it's more of a secondary benefit' (P7).

What was also apparent from all interviewees, was that there was a significant appetite to be able to measure wellbeing outcomes associated with individual programmes and PARCs as a whole, but no evaluations were being done in this space. There are several wellbeing measures that are used throughout society and various streams of research (Naci and Ioannidis 2015), but to-date, PARCs have not measured the health and wellbeing impacts of individuals engaging in activity within PARCs: 'Yeah, not yet. But that'll be the aim moving forward so we will align some of those elements back to the health and wellbeing plan so then we have some metrics that we can report on' (P7);

I think it's really difficult for us as an industry to set that up without someone like a University leading that and getting participants from around Australia, different centres, all participating in the one study, really controlled environment. It's beyond our capability, I think, at a local level to do that. (P2)

Purpose versus profit

Aquatic and recreation industry infrastructure is a large capital investment. In the state of Victoria alone, some \$933 m of tax-payer funds were spent on maintaining and building new infrastructure between 2016 and 2020 (VAGO 2016). The ongoing and maintenance costs of these facilities also run in the millions every year. Across the sector, these facilities generally make a financial loss each year which is deemed to be acceptable to a certain degree given the assumed outcomes of community health and wellbeing associated with their construction and usage. Recently we are not only seeing increased pressure being placed on the industry to maximize and demonstrate community impact, but indeed also to minimize significant financial losses associated with these facilities. This is proving to be a delicate balance for managers as they try to achieve both goals simultaneously. The kiosks/cafés which are often located within PARCs was provided as an example of how this 'purpose versus profit' dynamic often plays out, where PARCs have a role in fostering healthy eating choices, yet unhealthy foods are often more cost effective and better for generating a profit:

The outcomes of the kiosk are more important than the output. So, the output about making a profit from a subsidy point of view isn't the target, it's the outcome of educating people in the community about making healthier choices when they're at recreational venues. (P1)

However, in terms of being purpose driven versus profit driven in general, and accepting the financial realities, all participants agreed that PARCs need to be purpose driven, particularly as they often fill the void of where there is an absence of commercial entities due to the lack of positive financial net return: 'At the end of the day, that's my view, the local government is there to act where the market fails, or there's no opportunity. So that's it. That's our role' (P2); 'What community leisure centres provide is a more trusted place. When they come to something that's run by local government, they know that the facility is there for the community, it's not profit driven' (P4); 'It's very much we are outcome focused, as to what's your return on that investment? And that return, very rarely, in fact, never, in my circumstance, is never financial, it's always social, or it's always community driven' (P3).

Regional versus metropolitan

Where this purpose driven mentality was even more apparent was within the regionally located centres where there was clearly a lack of commercial entities offering similar services, versus metropolitan locations where there can be competition from private pools, gyms, and other sporting clubs and facilities. PARCs located in regional locations were deemed to have a much more significant role in being a catalyst for fostering community wellbeing and providing a context for social engagement alongside the health benefits of attendance: 'The local pool is more than just a place where people can exercise and have those social connections, we are a true hub, because there's not that much to do in regional and remote areas' (P4).

Indeed, PARCs located in regional locations could potentially have a greater impact on community wellbeing in several areas compared to the metropolitan based facilities. These include regional PARCs acting as a stimulus to attract domestic migration, a hub for engagement strategies with aboriginal communities, and a place where allied health services could be co-located: 'How we engage with youth within our facilities, and especially displaced or at risk youths, you know, you wouldn't normally get those types of programmes in a metro area' (P4); 'Leisure facilities and community facilities, outside of schools, are probably the second most important thing that people look for when they're moving to a remote and regional town, because there's just less stuff to do' (P4); 'We have a greater risk of obesity rates, suicide rates, and issues in terms of physical health and wellbeing bigger than in metro areas, because they don't quite have the

access to primary health care providers as well' (P4). Regional PARCs also often must bear significant costs in terms of extra maintenance and upkeep due to environmental factors, and as discussed previously, are challenged by the recruitment and retention of suitably qualified staff:

They're the challenges that we face, it costs a lot more to run facilities in regional or remote towns, because of the remoteness, the wear and tear and things are obviously greater, we're dealing with temperature issues. And just the challenge to get staff and all those type of things. (P4)

Management and governance

Within the aquatic and recreation industry, although PARCs are almost exclusively owned by local councils, their management and governance can vary significantly (Howat and Assaker 2016). In general, in terms of management, PARCs are typically either owned and managed 'in-house' through the local council within which they sit, or alternatively, the management of a PARC is sub-contracted out to a professional/commercial management body (e.g. Belgravia Leisure/YMCA) (Tower, McDonald, and Stewart 2014). Throughout the course of the interviews, it became apparent that there can often be differences in the view around wellbeing and the broader theme of 'purpose versus profit' under these varying management structures. As private management companies ultimately have a commercial focus and are largely profit driven, some interviewees believed that wellbeing outcomes could be impacted as a result of these competing demands: 'I would say the publicly owned and operated venues, council, or equivalent, do place a higher value on wellbeing outcomes' (P3); 'I think they [private management companies] would more be, you know, looking at the dollars and cents in business' (P6); 'I think everyone is for the same thing, but it's what the budget is, and how passionate you are to do that' (P5);

I'm aware of the conversations that happen behind closed doors in those facilities. I worked for [private management company] for a very brief period of time. And I've worked in local government for a very long time now. And yes, in many instances, they're like chalk and cheese. (P4)

Given the now highly competitive environment between various private operators, we are also now seeing a trend in the sector where shorter term contracts are being offered to these operators which may impact wellbeing outcomes in terms of consistency, staff turnover, programmes, and initiatives focused on wellbeing outcomes. One participant believed that longer contracts and investment with private operators may lead to greater levels of wellbeing outcomes over time: 'Because the level of competition with contract management, we're seeing councils reduce length of term with contracts rather than invest in contractors' (P1). Further, one of the major benefits of sub-contracting management of a PARC to a private operator was the assumption that such organizations would have significant industry knowledge including being up to date on the latest research and best practice within the sector: 'Their ability to catch trends and provide the community with the services that they need are probably in advance of our council' (P2);

You're not necessarily up with what the trends are, especially being a Council run facility you sort of tend to operate a little bit in isolation, you don't have that [private management

company] type element I suppose feeding through the information from the cities as to what's happening and where things are heading. (P7)

Parcs versus community sport

There are many sport and physical activity options available to Australians particularly those who live in urban areas where there is more choice. Given the significant investment of financial and other resources in PARCs, it is necessary to examine how these facilities impact social and emotional wellbeing compared to the myriad of other sporting outlets available to Australians. Participants suggested there were several differences in the role that PARCs have in community wellbeing versus participation in community sport, while also conceding that both are necessary as they cater for different demographics within the community. The first contrast argued was that community sport, even at the very basic 'grassroots level' has a certain element of sport specific skill and experience required in order to play, and in a competitive environment which does not suit all individuals of the community. PARCs by contrast, are facilities that can cater for individuals who prefer individual types of physical activity, flexibility of attendance, or are motivated to be active for health reasons in a non-competitive environment:

For sporting clubs, the main aim is to be successful in a competitive nature. So, you'll see sporting clubs that are highly successful with great health outcomes ... you get told in many ways that if you're not able to play at a certain level, well, then you'll be pushed out through competition. So, there's 11 spots on the field and if you're not good enough, you won't get a spot. (P1)

A further argument put forward by multiple participants was that PARCs have employees who are trained professionals in the areas of physical training and activity and other health areas, and as such may offer a more professionalized, bespoke, and wellbeingcentric approach for their users as a result of such qualifications and experience. Community sport is largely a volunteer led sector and although wellbeing outcomes are undoubtedly associated with participation in community sport, it can largely be seen as a byproduct of such participation rather than the main objective: 'If somebody joins a sporting club, you know, they're obviously getting a different type of sense of wellbeing' (P4);

I would say the standard, the percentage of success or achievement is probably going to be higher in a leisure centre, because based on the training that staff have at the leisure centre compared to if you just joined a sports club. (P2)

The nature of PARC facilities also creates a diverse hub of sport and physical activities, with many of the larger PARCs housing facilities including swimming pools, gymnasiums, multi-use sport courts, aerobics studios, squash courts, playgrounds, and so on. This presents an opportunity for users to engage not only with multiple sport and physical activity outlets, but also to interact and form connections with diverse individuals and groups within the community. This notion of 'cross-pollination' was articulated by a participant during interviews:

What we try and do is encourage every single person that might only come to the pool to cross pollinate. And if you only go into the pool, go to the gym, if you go into the gym, participate in another programme, go and use the aquatic facilities, take part in this, join a social sports team, come and shoot hoops, go to take your kids on the playground. And so, all of a sudden, you're more than just coming to the gym, you're building relationships across the multiple areas within the facility. So that's where we're unique in that respect. (P4)

Finally, community sport in general requires weekly structured training and competition which can be a barrier to some individuals balancing work and family commitments. Conversely, PARCs are open for a significant time period during each weekday and weekend which caters for a more flexible environment for people to attend and take advantage of the wellbeing outcomes associated with use of these facilities. This ability to attend a PARC more frequently and in a flexible manner in comparison to community sport may offer greater wellbeing benefits for a range of user groups (Figure 1):

If you're looking at somebody who wants to get fit, turn up lose weight, then you know, three times a week, is generally the recommended minimum guideline ... if someone's coming to do a social sport, then they're just coming once a week, you know, joining a team becoming part of that community. (P4)

Conclusions and directions for future research

The aim of this study was to investigate the key issues and challenges associated with achieving wellbeing outcomes within the aquatic and recreation industry in Australia. Given the investment of finances and other resources within this sector, and the advocacy that this investment drives community wellbeing, it is surprising that there is very limited research investigating the impact of PARC usage and individual and community wellbeing. It is encouraging to see however that research relating to wellbeing as a general concept in sport and leisure appears to be on the rise (Breslin et al. 2017; Misener 2020; Vella 2019; Wicker and Downward 2020). The data collected via industry managers

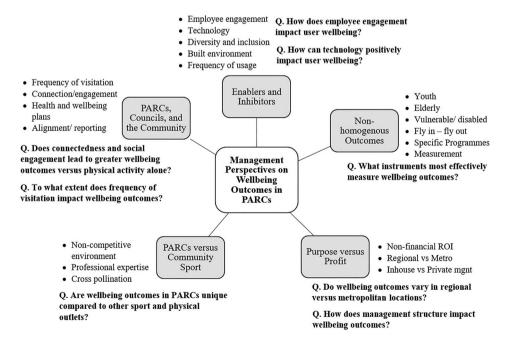


Figure 1. Management perspectives on wellbeing outcomes in PARCs.

in the current study have resulted in several key findings which have implications for this emerging body of research and indeed industry practice.

There was a general consensus that PARCs have the potential to play an important role in contributing to community wellbeing and better alignment with broader community health plans. However, the impact of individual's engagement with PARCs on wellbeing requires measuring, which is not currently being undertaken. Participants suggested that wellbeing measurements need to move beyond metrics that relate to just physical health and activity type, and to include other measures including social connectedness and engagement. With managers reporting that they do not necessarily have these research skills to conduct such an evaluation, this is an area for future research.

The data highlights several enablers and inhibitors that impact on community wellbeing with employee engagement with PARC users central to the user experience and their wellbeing outcomes, however this requires further investigation. As the general employee population was not part of the sample group within the current study, further employee engagement research relative to user wellbeing would be an important addition to the literature in this space to better understand the role and impact of the large cohort of PARC employees in different capacities around Australia. This work could be undertaken from a mixed method approach using both qualitative interviews and/or focus groups with employees alongside a survey adapting existing employee engagement scales to increase understanding in this important area. How PARCs can be more inclusive for culturally and linguistically diverse groups and better harness the role of technology relative to wellbeing outcomes within their operations also deserves further attention both within research and practice. Again, both qualitative and quantitative work could be employed here to explore this area further.

Participants acknowledged that the aquatic and recreation industry could perform better in relation to measuring wellbeing outcomes and tailoring wellbeing programmes to the heterogeneous demographic makeup of their communities. This is a conceptual challenge for both researchers and practitioners to develop instruments that accurately capture the impact that PARCs have on community wellbeing and for PARC management to have user-friendly tools that can help to evaluate the impact of various programmes and initiatives that are focused on user wellbeing. Several wellbeing measurement scales exist in the wider sphere including those used by the World Health Organization (WHO). Lindert et al. (2015) have also published a systematic review of these measurement sales. The major issue in the aquatic and recreation industry appears to be the lack of resources, knowledge, or skills to adopt some of these measures to be sued within this sector.

The reality for many PARCs around Australia is that they generate a significant financial loss each year. If research can demonstrate a positive and significant wellbeing impact of users of PARCS then this financial loss may be deemed more acceptable, as healthier individuals and communities are a significant cost saving to the health budget. Further, there may be different wellbeing impacts according to private versus public run PARCs, or those within regional areas compared to metropolitan regions, however this requires further investigation.

Finally, future research should place an emphasis on an in-depth exploration of how PARCs differ from other sport and physical activity settings in relation to their impact on wellbeing outcomes for users and participants. A broad population survey as a type of control group may offer important insights and illuminate benefits that may be specific to PARCs. Further research investigating the factors identified here would assist in the development of a new leisure theory and in practical justifications for local governments and communities on the investment of financial and non-financial resources across the PARC sector.

Research into sport management and leisure continues to grow in many areas, with scholars affording attention to a myriad of issues impacting the sector. The aquatic and recreation industry specifically, has received less attention which is surprising given the important role that the industry plays in Australian society (and indeed other nations) and the significant number of resources invested within the sector. Further, a detailed research agenda focused on wellbeing research within sport management and leisure studies is currently absent. Our directions for future research are intentionally descriptive, as no doubt researchers with different perspectives, theories, and research questions will create new areas of investigation that will require further theorizing and empirical testing. We look forward to witnessing this important research agenda emerge.

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ORCID

Adam Karg http://orcid.org/0000-0001-5264-0163 Rochelle Eime http://orcid.org/0000-0002-8614-2813 Heath McDonald http://orcid.org/0000-0002-0849-4274

References

Australian Institute of Health and Welfare (AIHW), 2012. Social and Emotional Wellbeing, Development of a Children's Headline Indicator (Cat. no. PHE 158). Australian Government. Retrieved April 15, 2019. https://www.aihw.gov.au/getmedia/b70d4d75-39fe-4fac-851c-07caaabdbdd7/11729.pdf.aspx?inline = true.

Beer, A., D. Faulkner, J. Law, G. Lewin, A. Tinker, L. Buys, R. Bentley, A. Watt, S. McKechnie, and S. Chessman. 2016. "Regional Variation in Social Isolation Amongst Older Australians." Regional Studies, Regional Science 3 (1): 170-184. doi:10.1080/21681376.2016.1144481.

Breslin, G., T. J. Haughey, P. F. Donnelly, C. Kearney, and G. Prentice. 2017. "Promoting Mental Health Awareness in Sport Clubs." Journal of Public Mental Health 16 (2): 55-62. doi:10.1108/JPMH-08-2016-0040.

Cahill, J., S. McLoughlin, and S. Wetherall. 2018. "The Design of new Technology Supporting Wellbeing, Independence and Social Participation, for Older Adults Domiciled in Residential Homes and/or Assisted Living Communities." Technologies 6 (1): 18. doi:10.3390/technologies6010018.

Davern, M., L. Gunn, C. Whitzman, C. Higgs, B. Giles-Corti, and K Simons. 2017. "Using spatial measures to test a conceptual model of social infrastructure that supports health and wellbeing." Cities and Health 1 (2): 194–209.

- Davies, L. E., P. Taylor, G. Ramchandani, and E. Christy. 2021. "Measuring the Social Return on Investment of Community Sport and Leisure Facilities." *Managing Sport and Leisure* 26 (1-2): 93–115. doi:10.1080/23750472.2020.1794938
- Daykin, N., G. Julier, A. Tomlinson, C. Meads, L. Mansfield, A. Payne, and C. Victor. 2017. A Systematic Review of the Wellbeing Outcomes of Music and Singing in Adults and the Processes by Which Wellbeing Outcomes Are Achieved. https://whatworkswellbeing.org/music-singing/.
- The Department of Health. 2019. "Australia's Physical Activity & Sedentary Behaviour Guidelines for Adults." Australian Government Department of Health. Retrieved April 15. https://www.health.gov.au/internet/main/publishing.nsf/content/health-publith-strateg-phys-act-guidelines.
- Dolan, P., and R. Metcalfe. 2012. "Measuring Subjective Wellbeing: Recommendations on Measures for use by National Governments." *Journal Of Social Policy* 41 (2): 409–427. doi:10.1017/S0047279411000833.
- Donaghy, M., and F. Perales. 2022. "Workplace Wellbeing among LGBTQ+ Australians: Exploring Diversity Within Diversity." *Journal of Sociology*, doi: 10.1177/14407833221118383.
- Eime, R. M., J. A. Young, J. T. Harvey, M. J. Charity, and W. R. Payne. 2013a. "A Systematic Review of the Psychological and Social Benefits of Participation in Sport for Children and Adolescents: Informing Development of a Conceptual Model of Health Through Sport." *International Journal of Behavioral Nutrition and Physical Activity* 10: 98. doi:10.1186/1479-5868-10-98.
- Eime, R. M., J. A. Young, J. T. Harvey, M. J. Charity, and W. R. Payne. 2013b. "A Systematic Review of the Psychological and Social Benefits of Participation in Sport for Adults: Informing Development of a Conceptual Model of Health Through Sport." *International Journal of Behavioral Nutrition and Physical Activity* 10: 135. doi:10.1186/1479-5868-10-135.
- Ferguson, H. L., C. Swann, S. K. Liddle, and S. A. Vella. 2018. "Investigating Youth Sports Coaches' Perceptions of Their Role in Adolescent Mental Health." *Journal of Applied Sport Psychology* 31 (2): 235–252. doi:10.1080/10413200.2018.1466839.
- Gibson, H. 2018. "Chronicling the Use of Life Satisfaction, Quality of Life, Wellness and Wellbeing in Leisure Research." Presented at the 20th Leisure, Recreation and Tourism Research Symposium and International Forum, September 29-30th, 2018. Taiwan National University, Taipei, Taiwan.
- Harvey, S. B., M. Deady, M.-J. Wang, A. Mykletun, P. Butterworth, H. Christensen, and P. B. Mitchell. 2017. "Is the Prevalence of Mental Illness Increasing in Australia? Evidence from National Health Surveys and Administrative Data, 2001-2014." *Medical Journal of Australia* 206 (11): 490–493. doi:10.5694/mja16.00295.
- Howat, G., J. Alikaris, H. March, and P. Howat. 2012. "Health-related Benefits: Their Influence on Loyalty and Physical Activity Participation in Australian Public Aquatic Centres." *International Journal of Sport Management and Marketing* 12 (1/2): 73–92. doi:10.1504/IJSMM.2012.051253
- Howat, G., and G. Assaker. 2016. "Outcome Quality in Participant Sport and Recreation Service Quality Models." Sport Management Review 19: 520–535. doi:10.1016/j.smr.2016.04.002
- Lindert, J., P. A. Bain, L. D. Kubzansky, and C. Stein. 2015. "Well-being Measurement and the WHO Health Policy Health 2010: Systematic Review of Measurement Scales." *The European Journal of Public Health* 25 (4): 731–740. doi:10.1093/eurpub/cku193
- Mansfield, L., N. Daykin, and T. Kay. 2020. "Special Issue: Leisure and Wellbeing." *Leisure Studies* 39 (1): 1–10. doi:10.1080/02614367.2020.1713195.
- Maxwell, J. A. 2013. *Qualitative Research Design: An Interactive Approach*. 2nd ed. George Mason University, Virginia: Sage.
- Misener, K. E. 2020. "Parent Well-Being Through Community Youth Sport: An Autoethnography of "Sideline" Participation." *Journal of Sport Management* 34 (4): 329–340. doi:10.1123/jsm.2019-0201.
- Naci, H., and J. P. Ioannidis. 2015. "Evaluation of Wellness Determinants and Interventions by Citizen Scientists." *Journal of the American Medical Association* 314 (2): 121–122. doi:10.1001/jama.2015. 6160
- Oman, S., and M. Taylor. 2018. "Subjective Well-Being in Cultural Advocacy: A Politics of Research Between the Market and the Academy." *Journal of Cultural Economy* 11 (3): 225–243. doi:10. 1080/17530350.2018.1435422



- O'Neill, J. 2006. "Citizenship, Well-Being and Sustainability: Epicurus or Aristotle?" *Analyse & Kritik* 28 (2): 158–172. doi:10.1515/auk-2006-0203
- Parliament of Australia. 2018. "Select Committee into the Obesity Epidemic in Australia." Retrieved May 27, 2019. https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Obesity_epidemic_in_Australia/Obesity/Final_Report.
- Price Waterhouse Coopers (PWC). 2021. "The Social, Health, and Economic Value of the Australian National Aquatic Industry." Royal Life Saving Australia. Retrieved February 9, 2022. https://www.royallifesaving.com.au/Aquatic-Risk-and-Guidelines/aquatic-research/Health-Social-and-Economic-Value-of-Aquatic-Industry/the-social,-health-and-economic-value-of-the-australian-national-aquatic-industry-report.
- Royal Life Saving Western Australia. 2018. "Bigger Better Safer Report 2017-2018." Royal Life Saving Western Australia. Retrieved August 24, 2021. https://royallifesavingwa.com.au/your-safety/facts-and-figures/industry-reports.
- Searle, G., and C. Legacy. 2020. "Locating the Public Interest in Mega Infrastructure Planning: The Case of Sydney's WestConnex." *Urban Studies* 58 (4): 826–844. doi:10.1177/0042098020927835.
- Stanway, A. R., R. Powell, L. Fradd, and R. Sibson. 2020. "Wellbeing, Social and Economic Value of Aquatic and Leisure Centres: A Holistic Model." *Annals of Leisure Research* 25: 227–246. https://doi.org/10.1080/11745398.2020.1787183
- Steele, J., K. Raubold, W. Kemmler, J. Fisher, P. Gentil, and J. Giessing. 2017. "The Effects of 6 Months of Progressive High Effort Resistance Training Methods upon Strength, Body Composition, Function, and Wellbeing of Elderly Adults." *Biomed Research International* 2017: 2541090. doi:10.1155/2017/2541090.
- Thomas, D. R. 2006. "A General Inductive Approach for Analyzing Qualitative Evaluation Data." *American Journal of Evaluation* 27 (2): 237–246. doi:10.1177/1098214005283748.
- Tower, J., K. McDonald, and B. Stewart. 2014. "Community Benefits of Victorian Aquatic and Recreation Centres: Technical Report for Aquatics and Recreation Victoria." Victoria University, Institute of Sport, Exercise and Active Living. Retrieved August 24, 2021. https://cdn.revolutionise.com.au/cups/arv/files/1zrztmsbtg8hsqlt.pdf.
- Vella, S. A. 2019. "Mental Health and Organized Youth Sport." Kinesiology Review 8 (3): 229–236. doi:10.1123/kr.2019-0025.
- Vernon, M. 2014. Wellbeing. London: Routledge.
- Victorian Auditor General Office (VAGO). 2016. "Local Government Service Delivery: Recreational Facilities (PP No 147, Session 2014–16)." Parliament of Victoria. Retrieved April 4, 2019. https://www.parliament.vic.gov.au/file_uploads/20160323-Rec-Facilities_8Lpv18Cc.pdf.
- Victorian Water Safety Assembly. 2016. "Victorian Water Safety Strategy 2016-2020." Life Saving Victoria, Victoria State Government. Retrieved April 23, 2019. https://lsv.com.au/wp-content/uploads/LSVIC_WSS2016_V2.pdf.
- Wang, W. C. 2021. "Relationships Between Leisure Involvement and Quality of Life among User of Public Sport Centres Aged 45 Years and Older." World Leisure Journal. doi:10.1080/16078055. 2021.1937690
- Weiss, R. 1994. "Relationships between leisure involvement and quality of life among users of public sports centre ages 45 years and older." World Leisure Journal, 64 (2): 180–195.
- Wheatley, D., and C. Bickerton. 2019. "Measuring Changes in Subjective Well-Being from Engagement in the Arts, Culture and Sport." *Journal of Cultural Economics* 43 (3): 421–442. doi:10.1007/s10824-019-09342-7.
- Wicker, P., and P. Downward. 2020. "The Causal Effect of Voluntary Roles in Sport on Subjective Well-Being in European Countries." *Journal of Sport Management* 34 (4): 1–13. doi:10.1123/jsm.2019-0159.
- Wilson, O. W. A., C. Whatman, S. R. Walters, S. Keung, S. Enari, A. Rogers, S. K. Millar, et al. 2022. "The Value of Sport: Wellbeing Benefits of Sport Participation During Adolescence in Aotearoa New Zealand." *International Journal of Environmental Research and Public Health* 19 (14): 8579. https://doi.org/10.3390/ijerph19148579.