

Inequities in the physical activity of disabled young people in Aotearoa New Zealand: a stakeholder SWOT analysis of the physical activity sector

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ABSTRACT

AIMS: Disabled people, particularly children and adolescents, tend to participate in less physical activity than their non-disabled peers on average. However, disabled children and youth (i.e., young people [YP]) are typically underrepresented in physical activity (PA) research, with little data available in Aotearoa New Zealand to guide policy makers to alter societal factors that contribute to disability inequities. The purpose of this study was to conduct a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis of the PA sector in Aotearoa New Zealand with respect to PA participation and promotion among disabled YP.

METHODS: Focus group discussions, underpinned by the SWOT framework, were facilitated with stakeholders (n=11) engaged in the Aotearoa New Zealand PA sector. Data were transcribed and analysed using content analysis. Desirable and accessible opportunities were essential enablers of PA in disabled YP.

RESULTS: Communication, transport, equipment costs, awareness of activities, and social support were identified as factors that influence PA participation. Schools also have a considerable influence on PA participation among disabled YP, while greater funding for and cohesion/collaboration among PA providers is key to continued growth in PA participation.

CONCLUSIONS: Communication, accessibility, funding, and collaborative/coordinated multi-level efforts were identified as areas in need of strengthening to provide equitable opportunities for disabled YP in Aotearoa New Zealand to participate in PA.

The 2022 Aotearoa New Zealand physical activity (PA) report card for children and youth (i.e., young people [YP]) highlights a range of disparities in PA participation between disabled and non-disabled YP¹ aligning with global evidence.² For example, there was a 5.1 percentage point difference between disabled and non-disabled YP meeting PA recommendations,¹ and international evidence suggests PA levels vary according to disability.³ Given the well-established benefits of PA,⁴ the fact that disabled YP have fewer opportunities to access and participate in regular PA compared to their non-disabled peers is a concerning but familiar story. For example, young people with impairments are typically excluded from PA by a series of often compounding psychological, social, material, and environmental barriers.^{5,6} These barriers range from navigating inaccessible facilities and high costs associated with participation, exclusionary attitudes, or a lack of information about available opportunities,⁷ illustrating the reach and impact of ableism in reducing the opportunities available for young people.⁸ The social model of disability⁹ stipulates that

people are disabled by society (e.g., economic, environmental, and cultural factors) rather than by their physical impairment(s). The model does not ignore individual experience or impairment but recognises that social structures have an overriding impact on whether an impairment is disabling or not. In doing so, the model provides a platform for attending to environmental change and generating social justice for disabled people. The model has been used widely internationally, including as a guiding framework underpinning Aotearoa New Zealand disability policy.¹⁰ Drawing from this foundation, addressing societal factors that contribute to PA inequities is important given PA participation is strongly linked with health and wellbeing outcomes, and access to PA is embedded in the United Nations Convention on the Rights of Persons with Disabilities (CRPD), of which Aotearoa New Zealand is a signatory to.¹¹

In Aotearoa New Zealand, it has been identified that children and youth are insufficiently active, and the 2022 Aotearoa New Zealand Physical Activity Report Card identifies a number of indicators in which disabled young people score lower than

their non-disabled counterparts, including overall PA, participation in organised sport, and PA and active play.¹ What is missing, however, is an understanding of why these disparities exist in the context of Aotearoa New Zealand, a context in which there is renewed government focus and intervention related to disability and inclusion in sport.¹¹

Thus, the aim of this study was to build on the data generated from the 2022 PA Report Card to provide contextual insight into the societal factors contouring disabled young peoples' PA participation. Relatedly, our purpose is to inform future policy changes that might increase opportunities for their PA participation. In so doing, we raise some critical questions on comparisons of PA participation among demographic groups that have differential access to PA opportunities.

Methods

A qualitative approach was used to generate an understanding of disabled young peoples' PA participation, as scored in the Active Healthy Kids Global Alliance Report Card indicators.^{1,12} These grades provided a reference point for two semi-structured focus group discussions, lasting on average 90 minutes. Participants were purposefully sampled using network sampling,¹³ enabling a range of views from within the disability PA sector to be represented. Once identified, participants were emailed information regarding the study along with an invitation to participate. Eleven participants took part in the focus group interviews, including people with lived experience of disability, experience of providing sport, active recreation and play opportunities for disabled people, policy makers, and individuals with general experience and immersion in the Aotearoa New Zealand disability PA sector. Discussions were held in accordance with recommendations for virtual qualitative health research¹⁴ using video-conferencing software (Microsoft Teams) that recorded and transcribed the data. Accuracy of the transcription was checked, and data were analysed using hierarchical content analysis incorporating both inductive and deductive elements. This method of analysis allowed for the inductive generation of initial themes through the *coding* of units of raw data related to disabled young peoples' PA participation. These data were progressively abstracted to a higher thematic level where themes were *clustered* around a common higher-order category. These categories were organised according

to a strengths, weaknesses, opportunities, and threats (SWOT) framework, representing the deductive element of the analysis.¹⁵ Together, this allowed for a general description of the mechanisms underpinning inequities in participation. For brevity, the results are presented thematically by report card indicator to avoid overlap between strengths, weaknesses, opportunities, and threats. This study was approved by the University of Waikato Human Research Ethics Committee (HREC(Health)2022#10).

Results

Descriptions of the indicators, which have been used to organise results, along with grades for YP overall and disabled YP, are reported elsewhere.¹ Several participants in the focus groups could provide multiple perspectives across the disability PA sector. Participant roles included active recreation organisation administrators (n=6), practitioners (e.g., coaches, community programme managers) (n=3) current/former disabled athletes (n=4), and disability/sport/PA researchers (n=5). Strengths, weaknesses, opportunities, and threats are reported below and summarised in Table 1. Though discussions were focused on PA participation in general, results are reported under the indicator headings established by the Active Healthy Kids Global Alliance Report Card.^{1,12}

Overall physical activity

Echoing previous PA research,¹⁶ the communication of PA opportunities to disabled YP was considered a primary factor influencing participation. For example, while it was agreed that communicating and raising awareness of existing opportunities to be active was important, a lack of cohesion between PA providers can result in a failure to disseminate information and engage with disabled YP:

“In the promotion of what’s already happening, I think a more coordinated approach [is needed] so that any young disabled person can find information on ways that they want to be active. I think currently that the route to finding that information is pretty tricky unless you know someone who knows someone or if you’re in part of an organisation or activity.” (practitioner/researcher)

Second, the importance of PA professionals offering a variety of quality opportunities so that disabled YP have choices was identified:

“It’s about people sticking to what they’re really good at and not trying to spread themselves too thin. It’s about getting the right people with the right skill. But it really comes down to choice ... people do what they want to do if they’ve got the ability to do it.” (administrator/athlete)

As such, while an expansion of opportunities for PA is a potential strength, there is considerable overlap and competition between providers:

“It’s great that you guys are coming into this area, we’ll move out of what we’re doing’. By [an organisation] moving in and [another organisation] moving out we’ve moved the hole somewhere else, which we can’t afford to happen.” (administrator/athlete)

The growth of Parafeds (regional disability sport and recreation organisations) was identified as a strength, given their explicit objective to focus on providing sport and PA programmes for people with physical impairments. However, it was identified that Parafed memberships were declining. In terms of facilitating PA, participants recommended adopting participatory practices; that is, listening to members and identifying what YP want to engage in as part of their PA participation.

Negotiating access to PA was identified as a repeated threat to PA participation. For example, participants described limited access to reliable and affordable transportation and equipment as major logistical barriers for disabled YP. The provision of operational funding was identified as important to keep costs down for participants. At a programmatic level, one participant (administrator/practitioner) described that participation in ‘one-off’ events (for example, ‘have-a-go days’) can provide good initial exposure; however:

“If you wanted to do it so that they would participate regularly, the wheels literally and figuratively fell off.”

Furthermore, funding for both participation initiatives and educational programmes was commonly raised as a threat to continued progress, with one participant (athlete/researcher)

describing how many disability sport and recreation organisations are “operating on the smell of an oily rag”. Finally, at a micro level, it was recognised that inclusive attitudes were a major factor influencing access:

“Sometimes people think about physical access being the bigger one, but often it’s not, and will blame that. But it’s more the attitudinal one, but we gotta work out how to do both.” (administrator/athlete)

Policy responses, therefore, might consider how best to address the attitudinal barriers to participation in a systemic way, targeting those responsible for leading PA (e.g., coaches and instructors).¹⁰

In promoting PA, it is worth considering access as a multi-dimensional construct, comprising physical access, knowledge of appropriate opportunities, power (the ability to obtain and sustain access), and interpersonal attitudes.¹⁷ As Smith et al.¹⁸ suggest, PA participation is mediated by a series of interconnected interpersonal, environmental, and policy factors, comprising ‘access work’. Here, the data is suggestive of a complex mix of limited social support, a saturated and complex organisational landscape, and limited information dissemination that are important factors limiting opportunities for disabled youth to be physically active.

Organised sport and physical activity

It was generally recognised that ‘inclusion’ was embedded—at least rhetorically—as a guiding principle at numerous levels of the Aotearoa New Zealand sport sector:

“So many sports are just calling for disabled or impaired people or anybody to come to play their sport. So, the doors are open, I don’t think we need to sort of make the doors open anymore. And if there is a club that is led by a group that aren’t very inclusive, then you know, you bypass them, they’re missing out.” (athlete/practitioner)

Partnerships between Parafeds and national sports organisations was raised as a strength and an opportunity that could be further leveraged, particularly to build capacity within ‘mainstream’ sports. However, implementing mechanisms for coordination among those in the PA sector was described as a clear weakness, with sports organisations having to negotiate multiple and

incompatible expectations associated with their various initiatives focused on inclusion, participation, and high performance:

“[A] coordinated approach is a big one. So, with disability sport providers, having some cohesion across, I guess our Parafed network, disability sport organisations that exist, and national disability sport organisations.” (practitioner/researcher)

Active play

The development of informal unstructured play was identified as an opportunity that Sport New Zealand and Parafeds are beginning to pursue:

“The Parafeds have grown very well as the last 10 years, and so I think that they are in a very good place to support more and more but I don’t know how the membership numbers are. So I’m not sure if organised sport as such, in the way that we’ve traditionally done it, is meeting the modern needs of young people. I certainly feel like the informal unstructured play is something that we need to develop, and I know that Sport NZ is.” (administrator/athlete)

Active transportation

Though participants mentioned transportation needs to and from PA opportunities, active transport was not raised during the discussion as an area of focus.

Sedentary behaviours

Sedentary behaviours were only raised once as a function of a lack of inclusive practice:

“We see a lot of kids with disabilities staying on the sideline during PE.” (administrator)

Family and peers

Family (parents and siblings) and peers were consistently identified as crucial to the PA participation of disabled YP. The ability of Parafeds and other organisations to engage families in sporting activities, sometimes via ‘whānau days’ was identified as essential to initiating PA participation of disabled YP, and facilitating a transition from informal activities to regular participation in structured activities:

“The whānau days and the incorporation of family and siblings has just come back time and time again be a really really positive thing, but it’s also been important to not have them as a one off.” (administrator)

Caregivers outside of the family unit (e.g., paid caregivers) were also identified as important for facilitating PA participation. The importance of caregivers, family or otherwise, is highlighted by an athlete/administrator describing what it takes for them to participate:

“Obviously we’re talking young athletes as well or young people being able to attend events, and the fact it takes an hour and a half to get me out of bed and shower purely just to go and attend a sporting event and I’m potentially going to go in a bit more fatigued. So there’s all this kind of consideration around body management and understanding levels of care required too even before [people] even get to the event. I think that really needs to be recognised in this space.”(athlete/administrator)

School

Echoing previous research,^{1,19} schools were identified as an important setting to reach disabled YP and help them transition to other PA participation opportunities. However, variation in the quality of opportunities provided in school physical education was noted, primarily due to teachers’ lack of disability-specific knowledge:

“Most of the time we talk to the teachers either they don’t know how or they don’t have time and we can’t blame them.” (administrator)

Another participant (administrator/practitioner) described that this stems from limited formal training of teachers in adaptive sport and physical education (PE). Participants explained that successful continuing education of teachers is possible, but difficult, as PE is often not a priority compared with numeracy and literacy:

“The value of sport and PE in primary school, compared to say literacy and mathematics and science, appears to be a lot lower. The effort it takes to

actually deliver [inclusion] training, once in it's fine because they can see the real value, but you gotta have the right people within the school with the right ethos to be able to recognise the importance of it.” (administrator/athlete)

Aligning PA with the core curriculum, such as literacy and numeracy, was identified as a strategy to engage YP in PA. Finally, another weakness concerning school PA promotion was that disabled YP, particularly those with intellectual or visual impairments, were “already on the back foot developmentally” (administrator) upon being reached at school:

“I guess it's understanding that schools are really busy places and they don't necessarily want additional programmes offered or additional professional development or fear and particularly at the moment with COVID, they're barely hanging on.” (administrator)

Reaching YP early was identified as an opportunity to facilitate ongoing inclusion; however, often the responsibility for facilitating PA for disabled YP fell to community sports clubs:

“(T)here's a huge drop off as soon as they leave school. But if they are involved in their community club then when they leave school they can go to the club because they know it caters for them.” (administrator/practitioner)

Community and environment

In addition to sporting organisations, local councils were also acknowledged as important in facilitating physical access to leisure facilities:

“The disability sports, Parafeds, Halbergs, Special Olympics, Paralympics, play really critical role, but so do the Councils because they provide a lot of the opportunities in the community, especially with pools and gyms and that sort of thing.” (administrator/athlete)

Beyond organisations, Aotearoa New Zealand's natural environment was acknowledged as an asset due to the space available to be active. However, Aotearoa New Zealand's natural environment is also

a weakness due to the dispersal of the population over a relatively large geographical area where the local organisations and built environments may be lacking in less populated areas:

“Within some of our communities there might not be really quality opportunities at school. Within their rural, isolated community, there's nothing that they can be involved in outside of school. Then maybe the informal play space or park that's near them isn't accessible either, and so ... that wider system around the individual isn't providing any opportunities.” (practitioner/researcher)

Government

The relatively recent leadership role assumed by Sport New Zealand regarding promoting PA among disabled people was acknowledged as an important development. This change was timely and well received:

“Five to six years ago, people used to be (like) why should we include disabled tamariki [children] and rangatahi [youth]. Now they are talking about how can we do it better? We're doing it, but we actually want to do it much better.” (administrator/athlete)

Furthermore, at a broader policy level, the forthcoming (at the time of focus groups) and since launched Whaikaha – Ministry of Disabled People was also noted as a potentially promising development:

“It'll be interesting to see how much emphasis [Whaikaha – Ministry of Disabled People] have got on play, active recreation and sport because they've got big actions around education, health, community involvement ... It's how they can see that what [Sport NZ] is doing in the sector can actually add value to all the other aspects of a disabled person's life, just like [Sport NZ] do for able-bodied New Zealanders.” (administrator/athlete)

Sleep

Sleep was not raised as an issue by any of the participants in the discussion about inequities.

Physical literacy/physical fitness

Physical fitness components were not raised explicitly, though obesity among YP was identified as a potential threat to PA promotion. From a physical literacy perspective, helping YP to have fun and develop skills to confidently participate in PA was identified as an historic gap that is now being filled. Promisingly, a focus on physical literacy of disabled YP in schools was noted.

A note on comparisons

Though participants believed that both disabled and non-disabled YP should be compared as a means of directing policy and highlighting areas for development, they noted such comparisons are not straightforward. One concern revolved around inequitable variations in delivery and access across Aotearoa New Zealand:

“If there was equality of opportunity across NZ, if disabled kids in Otago got the same experience as disabled kids in Auckland and the Bay of Plenty (then we can compare), but at the moment there’s only a couple of hot spots.” (athlete/researcher)

Whether mere comparisons were valuable was also questioned:

“I think a point of comparison, I mean, it tells us there’s an inequity, but it doesn’t tell us why. I don’t know if it’s super helpful without the why.” (practitioner/researcher)

With respect to the ‘why,’ including disabled YP in discussions was recommended in future:

“If we’re wanting to find out the why’s, then actually talking to the people who it’s impacting directly would be really valuable.” (practitioner/researcher)

Other concerns included the absence of YP with a more diverse range of impairments (e.g., learning disabilities) in the comparisons, and whether the collected information is accurate:

“Do the parents of disabled tamariki and rangitahi actually get them involved in reporting information? Who knows?” (athlete/administrator)

Discussion

The social model of disability offers a useful framework to guide the discussion of our findings, as it is evident that there are multiple societal levels of influence on PA, and particularly in the case of disability, influences on PA interact and compound across levels.¹⁰ By looking for commonalities across the various indicators presented in our results, we aim to identify the key determinants contributing to inequities in PA participation for YP in Aotearoa New Zealand and provide key insights for policy-makers and practitioners in the disability PA sector to alter societal factors that arguably generate disability inequities.

It was evident from discussions that disabled YP want to participate in PA, provided they can participate in activities that are accessible and of interest to them. A variety of factors were identified as important for enabling this for disabled YP. A starting point is providing disabled YP with a variety of activities to choose from. PA opportunities for disabled YP tend to be more limited and dispersed over a larger geographical area than their abled-bodied peers (i.e., the density of opportunities is lower), and this relative scarcity makes all such opportunities all the more important. Awareness of the opportunities that exist, on the part of both disabled YP and PA providers, is another important factor. Disabled YP’s awareness is important due to the aforementioned scarcity of opportunities. With respect to PA providers, desirable PA opportunities for disabled YP cannot be created without engaging and listening to disabled YP to understand their preferences. A variety of antecedents were identified as key to awareness, which can be distilled down to clear, engaging, and cohesive communication between disabled YP and PA providers, as well as between different PA providers to share knowledge and ensure gaps are filled rather than created. The latter speaks to the importance of coordination across the sector and minimising competition for resources amongst PA providers for disabled people. Indeed, while progressive discourses of inclusion and equity permeate recent social policy¹⁰ and the day-to-day work of practitioners within the sector, the extent to which it can impact on participation in sport and PA is mediated by a lack of coordinated approaches from organisations responsible for disability sport provision.¹¹

Beyond awareness, accessibility is another important factor impacting the participation of

Table 1: Summary of strengths, weaknesses, opportunities, and threats.

Strengths	<p>Recent growth/expansion of physical activity participation opportunities</p> <p>Partnerships between Parafeds and national sporting organisations</p> <p>NZ's natural environment and available space</p> <p>Sport New Zealand leadership and forthcoming Whaikaha – Ministry of Disabled People</p>
Weaknesses	<p>Communication/awareness of physical activity opportunities</p> <p>Coordination in the PA sector</p> <p>Variation in school teacher education and physical activity opportunities within schools</p> <p>Physical education not a priority within school curriculum</p> <p>Dispersal of NZ's population over large geographic area</p>
Opportunities	<p>Cohesion/coordination among physical activity providers</p> <p>Listening to participants, in particular young people</p> <p>Fostering inclusive attitudes</p> <p>Promoting informal and unstructured play</p>
Threats	<p>Overlap/competition among physical activity providers</p> <p>Transportation and equipment not affordable and/or reliable</p> <p>Funding sources may not be sustainable</p>

disabled YP. Cost, transportation, exclusionary attitudes, lack of knowledge, and absence of social support can all constrain accessibility. Although a large proportion of funding secured by providers in the disability PA sector contributes to subsidising the cost of equipment and providing appropriate transport options, these expenses remain a barrier to equitable participation. Transportation issues are compounded by the scarcity of PA opportunities for disabled YP, which clearly indicates the need to improve the distribution of such opportunities across Aotearoa New Zealand, as well as increase the number of opportunities. Disabled people in Aotearoa New Zealand suffer disproportionately from the burden of the transport system and experience inequitable barriers to independent and/or spontaneous transport.²⁰ Larger travel distances to reach scarcer facilities make participation even more resource intensive. Further research into active school travel and independent mobility of disabled YP is warranted.²¹ This may include investigating how to implement practical enablers across the

transport system and reducing ableist presumptions about preferences and abilities.^{22,23}

Social support from parents, siblings, peers, and other caregivers was identified as vital to the participation of disabled YP in PA. Making activities a family affair is one strategy employed to get disabled YP, along with their family involved. Aligned with social support is support from teachers for YP to participate in PA in schools alongside their peers. There appears to be room for improvement in reaching and supporting disabled YP early in a way that is underpinned by the social model of disability to avoid creating or perpetuating disability inequities. There is also space for growth in relation to equipping teachers with the skills and resources to include disabled YP, and prioritising physical literacy alongside numeracy and literacy. Schools are particularly important, as many of the barriers constraining participation outside of school (awareness, transport, equipment, support, etc.) are either non-existent or relatively straightforward to mitigate. Much of the discussion regarding schools focused on teacher capabilities, which is important.

However, a school-wide response that encompasses enabling policies and environments, alongside increasing teacher capabilities, and the capabilities of those who may volunteer to facilitate PA participation (i.e., as coaches, managers, etc.) warrants consideration. It is also worth noting that it is assumed that participant comments regarding schools concern mainstream schools, as there was no mention of specialist schools that offer specialist teaching to students with high needs.¹⁰

The strategic priorities and allocation of resources from Government will play a central role in the formulation, implementation, and evaluation of policies that provide equitable opportunities for disabled YP to participate in PA as readily as their non-disabled peers. Evidence suggests a gap can exist between the government and behavioural indicators for disabled YP, and it is possible the impacts of policy take time to impact behavior in a significant and sustained manner.² Recent developments, such as the creation of the Disability Strategy by the government agency responsible for PA promotion in Aotearoa New Zealand (Sport New Zealand) and the forthcoming Whaikaha – Ministry of Disabled People represent considerable progress and opportunity, and time should be allowed before evaluating the impact that these policies have on behavior. The demand for Sport New Zealand's recent contestable funding demonstrates the constraint that continued investment in the sector will ultimately place on growing opportunities for disabled YP to participate in PA. With respect to strategic direction, it appears that there is a desire on the part of some within the sector for greater collaboration and cohesion among PA providers.

Though participants included Māori, in future the engagement of tāngata whenua would ensure that Tāngata Whaikaha and explicit perspectives of Māori are elevated. Along similar lines, engagement of those less involved in the PA activ-

ity sector would no doubt produce invaluable perspectives as to how PA could be better promoted for disabled YP. Beyond engaging tāngata whenua, participants identified several limitations in the development of the report card, including: the exclusion of YP with certain disabilities, a lack of insight into why inequities exist, and complications conducting national comparisons when there are known regional variations in PA opportunities for disabled YP. Regarding comparisons, disabled YP participate in less PA, which is concerning given PA participation is relatively low among YP in general. Further research is needed to understand the magnitude of inequities in PA participation based on the nature of YPs' disability. Other limitations include a paucity of discussion about several indicators and how they are influenced by societal factors, such as supporting whānau, caregivers, and peers to facilitate the development of physical literacy. Further, in keeping with the social model of disability, future researchers may want to consider further exploring the importance of the community and the environment, particularly in relation to weaknesses identified by participants regarding accessibility and transportation. Also, exclusionary attitudes towards disability and disabled people, and recognition of the role individuals can play in description of sustaining ableist systems always warrants further investigation. Though difficult, each of these limitations could be addressed with continuing discussions and further resourcing to collect the necessary data.

In summary, communication, particularly including the voices of disabled YP, accessibility, funding, improved/targeted data collection, and collaborative/coordinated multi-level efforts were identified as areas in need of strengthening to provide equitable opportunities for disabled YP in Aotearoa New Zealand to participate in PA as readily as their non-disabled peers.

COMPETING INTERESTS

Nil.

ACKNOWLEDGEMENTS

We acknowledge the contributions of the 2022 Aotearoa New Zealand Physical Activity Report Card for Children and Youth Team who collectively provided the overall grades for comparison (Lana Chisholm, Scott Duncan, Erica Hinckson, Erika Ikeda, Geoff Kira, Ralph Maddison, Sandy Mandic and Kim Meredith-Jones). We also acknowledge the contributions of the participants in the focus group discussions who provided valuable expert insight into the current situation for disability physical activity in Aotearoa New Zealand. No financial or material support of any kind was received for the work described in this article.

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