Disability and Rehabilitation

ISSN: 0963-8288 (Print) 1464-5165 (Online) Journal homepage: www.tandfonline.com/journals/idre20

‘You have to make it accessible and it’s really not’: priority actions to support disabled people to be physically active

Shelby Carr, Andrew J. Atkin & Karen Milton

To cite this article: Shelby Carr, Andrew J. Atkin & Karen Milton (2025) ‘You have to make it accessible and it’s really not’: priority actions to support disabled people to be physically active, Disability and Rehabilitation, 47:12, 3144-3150, DOI: 10.1080/09638288.2024.2417032

To link to this article: https://doi.org/10.1080/09638288.2024.2417032

Published online: 20 Oct 2024.

DISABILITY AND REHABILITATION
2025, VOL. 47, NO. 12, 3144–3150
https://doi.org/10.1080/09638288.2024.2417032

Taylor & Francis
Taylor & Francis Group

RESEARCH ARTICLE

OPEN ACCESS Check for updates

'You have to make it accessible and it's really not': priority actions to support disabled people to be physically active

Shelby Carr[a], Andrew J. Atkin[b,c] and Karen Milton[a]

[a]Norwich Medical School, University of East Anglia, Norwich, UK; [b]School of Health Sciences, University of East Anglia, Norwich, UK; [c]Norwich Epidemiology Centre, University of East Anglia, Norwich, UK

ABSTRACT

Purpose: Disabled people are more likely than non-disabled people to be physically inactive, placing them at increased risk of ill-health. Many disabled people want to be more physically active yet feel there is inadequate support to do so. Evidence on the tangible actions that would support disabled people to be active is limited. The aim of this study was to explore the key actions that would best support disabled people's participation in physical activity.

Materials and Methods: Twenty-one disabled people (62% >45 years, 48% male) were purposively sampled to take part in online focus groups (2-6 participants per group). Six focus groups were undertaken using a semi-structured guide, with transcripts thematically analysed.

Results: Thirteen themes were identified across four levels of the ecological model - interpersonal, institutional, community, and policy. Priority actions include mandatory training on how to support disabled people, improvements to the accessibility of facilities and equipment, improved frequency of public transport to activity centres, and actions to improve societal attitudes towards disabled people.

Conclusions: A systems-based approach is needed, combining actions across levels of the ecological model, to ensure equitable access to physical activity for disabled people.

IMPLICATIONS FOR REHABILITATION

- Physical activity is an effective rehabilitative method of improving symptoms and quality of life.
- Lack of accessible facilities, equipment, and social support can hinder disabled people's participation in physical activity.
- Alongside improvements to facilities, better training for activity centre staff and instructors is required to increase the opportunities for disabled people to engage in physical activity.

ARTICLE HISTORY
Received 13 March 2024
Revised 8 October 2024
Accepted 10 October 2024

KEYWORDS
Disabled people; physical activity; ecological model; health; participation

Background

Physical activity has many benefits for adults, including the prevention and management of chronic diseases and improved mental health, sleep, and cognitive function [1–3]. However, 26% of adults in the United Kingdom (UK) were reported to be physically inactive in 2023 [4]. Of particular concern is that disabled people are more likely than non-disabled people to be physically inactive, placing them at increased risk of ill-health [4,5]. Disability prevalence is rising, with 24% of the UK population reporting to have a disability in the 2021/22 financial year - an increase of 5% points over a ten-year period [6]. For disabled people, physical activity is an effective rehabilitative method of improving symptoms of health conditions, as well as enhancing quality of life and life satisfaction [7,8]. Disabled people are therefore an important target group for physical activity promotion.

The ecological model depicts the relationships between the individual, social, and environmental factors that combine to influence human behaviour [9]. The framework suggests that health behaviours (including physical activity) are shaped by factors at five levels: intrapersonal, interpersonal, institutional, community, and policy. A systematic review by Martin Ginis et al. (2016) identified a range of factors aligned to the ecological model that can influence disabled people's participation in physical activity [10]. The most common barriers to physical activity include a lack of disposable income, inadequate professional support, and a lack of specialised/adapted equipment [11,12]. There are also a range of factors that can improve disabled people's adherence to physical activity, including social support, feedback from instructors, aspirational role models, and developing behavioural skills such as goal setting [13,14].

Whilst the barriers to physical activity faced by disabled people are relatively well understood, insufficient action has been taken to overcome these barriers. In the UK, 76% of a nationally representative sample of disabled people stated that they wanted to be more physically active but felt there was insufficient support to do so [15]. Barriers previously reported by disabled people in the UK included the cost of activities and transport, ineffective communication methods, and a lack of self-esteem [16]. Recent policy developments in the UK, such as the sport and physical activity strategy 'Get Active' released in August 2023 [17], have helped to raise awareness of the importance of improving physical activity provision for disabled people; however the actions are somewhat ambiguous and disabled people were not consulted

CONTACT Shelby Carr s.carr@uea.ac.uk Norwich Medical School, University of East Anglia, Norwich, UK

in its development. A better understanding is therefore needed of the actions that disabled people feel are required to support them to be physically active. Therefore, the aim of this study was to explore with disabled people the key actions that would best support their participation in physical activity.

Methods

Participants and sampling

Following ethical approval from the University of East Anglia Faculty of Medicine and Health Sciences Research Ethics Subcommittee (ETH2223-2695), participants were purposively sampled *via* Activity Alliance [18] (a national charity and leading voice for disabled people in sport and activity in England) and Active Norfolk [19] (the active partnership for the county of Norfolk, UK). Both organisations had connections to disabled people through previous work. An initial invitation to take part was sent via email from Activity Alliance and Active Norfolk. These organisations compiled a list of respondents who expressed interest, and their contact details were subsequently shared with the first author (SC). SC led the communication from that point, sharing the participant information sheet, consent form, and further information about the study with all potential participants. Participants were eligible for inclusion if they were aged 18 years and over, had a disability or chronic health condition which affected their daily activities, spoke English, and had sufficient communication skills to contribute to a group discussion. We sought to recruit participants with a variety of impairments, including physical, sensory, mental health, and speech and language.

A total of 21 participants were recruited, of which 10 (48%) were male, 13 (62%) were aged 45 years or older, 17 (81%) were of white ethnicity, and 7 (33%) were working either full- or part-time. Participants reported experiencing a variety of impairment types, most commonly mobility ($n = 13$, 62%) and mental health ($n = 10$, 48%).

Data collection/procedure

Focus groups were used in place of individual interviews to allow participants to feel empowered and share their beliefs and observations among other disabled people [20]. The focus group guide was developed by the authors. No formal pilot testing was undertaken; however, the draft schedule was shared with Activity Alliance in advance, who provided feedback and suggestions to inform the final focus group guide. During the focus groups, participants were asked open questions related to the barriers and facilitators to physical activity for disabled people to help set the scene for the discussion. This was followed by questions related to the main aim of the study, to identify actions that would help support disabled people to be more physically active. Questions included "What do you think encourages you or other disabled people to be active?," "What do you feel might prevent you or other disabled people from being active?," and "What do you feel governments need to do to support disabled people to be active?" Prompts included "Are there any examples you can give from your own experience?" and "For each action, what might this look like?"

Written consent was obtained prior to the focus groups commencing. Six focus groups were undertaken, with between two and six participants in each. All focus groups took place online; five via MS Teams and one via Zoom. This enabled reach to participants across the UK and minimised accessibility restrictions. Prior to the focus groups commencing, participants were reminded that a recording would be taken, their data would be kept securely, and they did not have to answer any questions they were not comfortable with. Once all participants were happy to proceed, recording was started. The focus groups were mixed gender and lasted an average of 51 minutes (ranging from 44 to 57 minutes).

In the days following the focus groups, participants were sent an email thanking them for their participation and were provided website links for further information about how to become more active. The email also signposted participants to sources of advice and support relating to mental health, education, and disability equipment. Participants received a £35 voucher as a token of appreciation for their time.

Data analysis

Thematic analysis was used to identify common themes and recurring patterns of conversation across the focus groups. In line with the six-step procedure proposed by Braun and Clarke [21], the focus group recordings were transcribed verbatim and participants names were removed. Transcripts were read thoroughly by SC and KM to immerse the researchers in the data. Initial codes were generated to describe the content of the discussion, which were grouped into themes. This was first undertaken by SC and KM separately, before comparing. Following agreement of the codes and themes, these were grouped by SC to reflect the different levels of the ecological model [9] (except for the intrapersonal level, for which no codes or themes were identified), and was verified by KM.

Results

The results are presented in line with the levels of the ecological model. See Figure 1 for the coding structure. We identified recommended actions across four levels of the ecological model - interpersonal, institutional, community, and policy. No codes or themes were identified for the intrapersonal level, suggesting that the actions disabled people perceive are needed are not those aimed at changing disabled people's attitude and motivation, but rather actions that address the external barriers to their participation.

Interpersonal

At the interpersonal level, two themes were identified: societal attitudes and social support.

Societal attitudes

Discrimination towards disabled people was mentioned during the focus groups as having an impact on participants' self-confidence and motivation to take part in physical activity. One participant mentioned the shift in societal attitudes towards homosexual individuals through national campaigns and promotion of the rainbow flag. It was suggested that something of similar scale for disabled people may contribute to improvements in societal attitudes and disabled people's own beliefs about how they are perceived in society, which in turn would help disabled people to feel more welcome and confident participating in physical activity opportunities.

> I was on my bike a couple of years back and some kids sort of shouted 'out the way fatty' erm and that's the first time, because I've never used

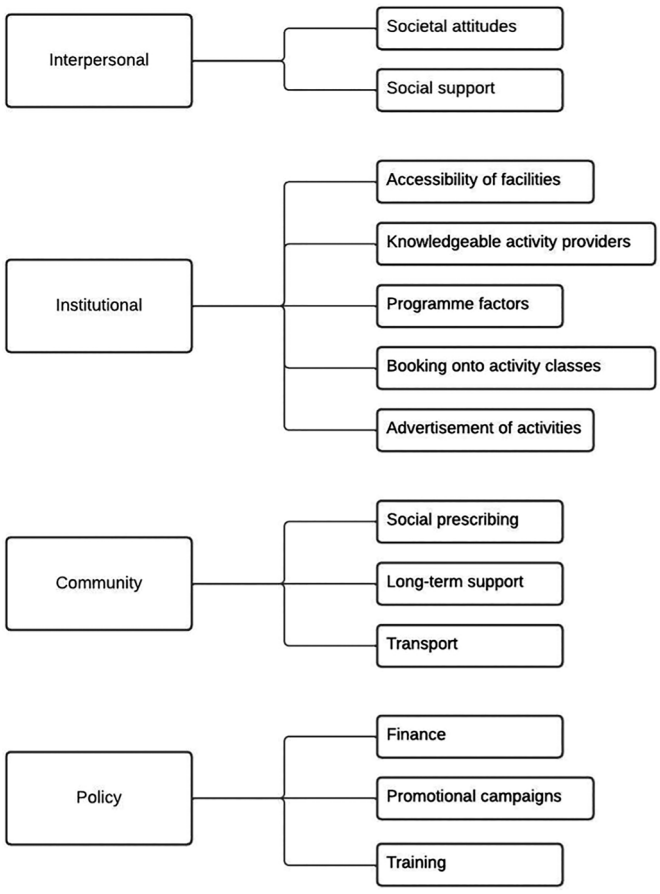

Figure 1. Coding structure

> to put on weight, and it was the first time somebody had ever said anything like that to me, and… that's only because I'm, I'm less active than I used to be, which is to do with my MS. (FG2; Male; 45-54yrs; Long term pain, Mobility, Dexterity, Mental health, Visual, and Memory impairment)

Social support

Taking part with friends and family made participants feel more motivated to do physical activity, and in some cases made them feel more comfortable to attend an activity class. Support from carers was also a key factor to enabling disabled people to take part. Participation in the activity by carers was felt to be important; if support workers attend but do not participate in an activity, this can feel patronising to disabled people. However often carers or support workers were not able to join or support the disabled person. Participants gave examples of how their carers have been required to pay to attend an activity, even though they were attending for the primary reason of supporting the disabled person to take part. Therefore, better systems are required to enable support workers to take part in physical activity alongside disabled people.

> It feels quite patronising then, doesn't it? I mean it's like, oh, come on, come on. You know rather than kind of sweating alongside then going, oh my God, this is killing me, when, you know, work harder because you're going to beat me, you know, that's the sort of encouragement that you need. (FG6; Female; 18-24yrs; Mental health impairment)

Some participants mentioned that since the COVID-19 pandemic there is a reduced number of staff available at leisure centres to support disabled people, for example, to use the hoist to get in and out of the swimming pool. This means that disabled people are even more reliant on carer support to facilitate their participation in physical activity. However, often this means their opportunities to participate are limited to the number of times they receive carer support throughout the week and the duration of time the carer has with the individual. Increased availability of staff at leisure facilities is therefore necessary to support disabled people's access to physical activity provision, without the need to provide their own carer.

Institutional

At the institutional level, five themes were identified: accessibility of facilities; knowledgeable activity providers; programme factors; booking onto activity classes; and advertisement of activities.

Accessibility of facilities

Infrastructure and accessibility of equipment were among the most common reported issues to be addressed throughout all focus groups. For one participant, some activity venues and gym equipment were not accessible for their wheelchair.

> I can't really use gym equipment because it's really hard to transfer from my chair onto the gym equipment, because usually you have to kind of contort yourself into erm like difficult positions. Like you can't, you can lower bike seats to a certain extent, but not low enough so that I can just transfer onto them. (FG6; Female; 18-24yrs; Mobility, and Dexterity impairment)

Due to variation in the accessibility of leisure facilities and the provision of appropriate equipment for disabled people, participants often have to contact leisure facilities in advance, which creates an additional barrier to being active. Participants may also be limited in their choice of activities, depending on what equipment and/or support staff the centre has available.

> I was in another session with a lady who was in a wheelchair and again, from my point of view you don't think do you, she'd have to ring ahead to say is the, is the hoist available to get into the swimming pool but, you know surely she should just be able to go and the hoist is available but no they have to put it all in and you know, oh we need two members of staff because of, so you're like straight away you feel, you've got a pressure that you're causing. (FG4; Female; 55-64yrs; Mental health impairment)

Improvements are therefore needed to the accessibility of facilities, and to the information provided about accessibility, including the level of support that facility staff can provide.

Knowledgeable activity providers

Knowing that staff at leisure centres would be friendly, supportive, and accommodating of any accessibility requirements was crucial to participants feeling supported and able to attend local physical activity opportunities. Within the activity classes provided, having knowledgeable instructors who are accommodative and supportive of disabled people's needs was also considered important.

> I'm lucky now, I've got a personal trainer that wants to work with what I actually want to do, because barriers vary in terms of psychologically, you don't want to go over and feel like you're failing, you want somebody that's going to help you achieve by doing the things that you can do well and then building from that. (FG4; Male; 45-54yrs old; Long term pain, Mobility, Dexterity, Mental health, Breathing, Memory, Speech, and Behavioural impairment)

Partnering with disability organisations was a suggested approach to help leisure centres and activity providers to better understand the needs of their disabled clients.

> It's like getting other people involved, like maybe who I work for, like MENCAP, who work with people who've got the learning disabilities side and seeing what they can come up with, ….just like third parties involved, speaking to other people who work with people like us on a daily basis and see what we're dealing with because its ok somebody sitting in their office, but not seeing actually what's happening on the shop floor all the time. (FG3; Female; 45-54yrs old; Long term pain, Mental health, and Breathing impairment)

Programme factors

Participants felt that there were limited classes that they were able to attend, compared to non-disabled people. People with certain impairment types, such as sensory impairments, require specific adaptations or additional support. Several solutions were suggested, such as having a pre-recorded interpreter displayed on a screen to the side of the activity class; this would be particularly easy for activity classes that are already video recorded. Alternatively, having a screen displaying a ball that bounces with the rhythm of the music would help people with a hearing impairment to step in time. For people with sensory impairments, often the background music or level of noise within activity classes can be too loud, and the lighting in the activity room can also be too bright, thus quiet times at leisure centres or gym classes were recommended. It was suggested that adjusting some of the classes to accommodate these requirements would not hugely alter non-disabled people's experience of the class but would improve the opportunity for disabled people to participate.

> The feedback that comes back is that they don't put quiet hours in or sessions that are signed. So, if you have sensory needs and you can't cope with bright light or or loud, loud noise, it can be quite difficult to use places, like gyms and swimming pools because they're just, it's just too much to, for some people to take. (FG6; Female; 18-24yrs old; Mobility, and Dexterity impairment)

Booking onto activity classes

Often classes at leisure centres must be pre-booked, with spaces filling very quickly, especially now with fewer leisure facilities. However, disabled people can experience irregular changes in their severity of pain and symptoms, meaning they often do not know how well they will feel in a week's time. This can make some people hesitant to book onto activity classes and pay in advance. The opportunity for disabled people to cancel a booking at short notice and receive a refund would mitigate this problem.

> I think another thing is we often have to, have to cancel late and obviously normally, you have to give 24 or 48 hours' notice. Well, I don't know in 24 hours' time what state I'm going to be in and whether I'm going to be able to do a class or not, and it would be nice if there was a little bit more understanding. (FG4; Male; 45-54yrs old; Long term pain, Mobility, Dexterity, Mental health, Breathing, Memory, Speech, and Behavioural impairment)

Advertising of activities

Advertisement of activity classes and opportunities that are suitable for disabled people to attend was felt to be lacking. Participants reported a lack of information about whether facilities are accessible for disabled people and which classes are suitable for people with different types of disabilities. Clear and readily available information about the accessibility and support that activity centres and classes provide would help disabled people to feel encouraged to take part in physical activity.

> If you're going to look for a holiday, for instance. So I was just looking for some information for a friend and it's like, you know, dog, smoking… maybe it should be local government, ticking the box for do you provide this facility for disabled people, that should be an automatic tick, you know yes you've got it for females, yes you've got it for males, yes you have only female sessions, but have you got, just have you got disabled only. (FG4; Female; 55-64yrs old; Mental health impairment)

Community

At the community level, three themes were identified: social prescribing; long-term support; and transport.

Social prescribing

Social prescribing involves the referral of patients to a range of community-based services to help with the prevention and management of chronic disease. This can include physical activity and weight-loss programmes. Participants in this study felt that these opportunities were depleting and that the connections between health professionals and the activities that individuals were referred onto was weak.

> GP's, when someone has a health problem, whether it's blood pressure, weight, or anxiety, or depression, they're at the front line of those sorts of things, and general ill health, sort of health acute and chronic conditions. That they're the place, well one of the best places where people come into contact, and somebody has that in-depth knowledge about you, erm and therefore can actually recommend the best sorts of course of action, where it may not just be medication. And other, other options might be just as helpful and more helpful, but they're just not, it's not there, really at all. It's not, it's not joined up, I guess there's no. There's no formal link at all between my GP and any activity services. (FG2; Male; 45-54yrs old; Long term pain, Mobility, Dexterity, Mental health, Breathing, Memory, Speech, and Behavioural impairment)

One participant mentioned that they had been signposted to activity classes by their health professional, but some of the programmes did not feel appropriate for them. Thus, rather than the health professional being viewed as a source of support and reassurance, this was lost, which led to reduced motivation to undertake physical activity. Improved communication between health professionals and activity providers is required to ensure activities are suitable and are still taking place.

> People signpost you to things, they don't check actually the signpost is doing what it says at the other end and if it is actually right for you, you have to experience that negativity of it not being what you need, and then it feels a bit childish to go, oh, you know, it doesn't do what you think it does. (FG4; Female; 55-64yrs old; Mental health impairment)

Long-term support

Related to social prescribing, but also to other physical activity programmes, was a lack of ongoing support. Participants felt well supported whilst attending an activity programme but wanted further support after completing the 'prescribed' course to help them to continue doing an activity, or to obtain information on other activities they could access.

> Having that legacy of whether it's a program or something like that, then, because quite often you can find that you get like erm, so a bit like social prescribing, you can get physical activity programmes that people are signed onto for six weeks. But for me, I don't know whether there's anything after that for people in terms of there being this legacy to carry on. (FG4; Female; 55-64yrs; Mobility impairment)

Transport

Participants highlighted the need for leisure facilities to be well connected with public transport. The location of fitness centres

and gyms can often be outside of city centres and for some disabled people, particularly those who are unable to drive, this can be problematic and limit their ability to use such facilities. For many participants, improved public transport links to physical activity provision would make them feel more encouraged and able to undertake physical activity.

> Going out in the country or going to the beach, you know, they're difficult because they're not very wheelchair accessible, whereas gyms are, but because I can't drive and a lot of disabled people can't drive and the public transport isn't great, having them in more, so in city centres, and in accessible places that I would be going anyway, that is really great for me. (FG6; Female; 18-24yrs old; Mobility, and Dexterity impairment)

Policy

At the policy level, three themes were identified; finance; promotional campaigns; and training.

Finance

The cost of activity sessions, travelling to an activity, and for support workers to assist, are often prohibitive factors for disabled people to take part in physical activity. Adaptive sports equipment can also be more expensive than non-disabled equipment. Making activity classes and adaptive equipment more affordable would improve the opportunities available for disabled people to access physical activity provision.

> For someone who's blind for example, playing football er it's so much money to like, to buy a football when a sighted person can go to Sports Direct and buy a ball for £10, sometimes even less, and someone who's blind has to go out and get a blind football, which is like 50, £60, depending like where, got it from and like the quality of it. So it's a massive difference. (FG3; Male; 18-24yrs old; Visual Impairment)

Promotional campaigns

Campaigns were considered important in the promotion of physical activity for disabled people. Advertisement of elite disabled athletes is often lacking compared to that of elite, non-disabled athletes. It was also expressed however, that hearing about elite disabled athletes, or disabled people who have accomplished an outstanding sporting achievement, can be unmotivating. Instead, advertisement of people at a recreational level who are more relatable would help to encourage participation.

> You see people disabled people in the media speaking about sport, normally they've done something absolutely incredible, like, you know, they've climbed a mountain or they've, I don't know, they've run a marathon or or 12 marathons… and then people, I don't know why people do this, but people turn to me, or turn to someone with a disability and go oh, you could do that… somebody doesn't climb Everest and then you turn to your neighbour and say, oh, you could do that. You know, nobody does that, but for some reason because they have a disability, they do. So again, kind of trying to show, kind of normal people, disabled people doing exercise… putting more of an emphasis on normal exercise and not just focusing on, you know, extreme feats of incredible athleticism. (FG6; Female; 18-24yrs old; Mobility, and Dexterity impairment)

Training

It was commonly mentioned that disabled people did not feel that activity providers were adequately aware of the multitude of different disabilities, nor trained in how to adapt an activity and support disabled people to participate. From the participants' perspective, there also appeared to be differences in instructor training across sporting activities, with some sports providing training on how to support disabled people, and others not. Similarly, whilst some sports provide disability training, this may be online, meaning no real-life experience is gained on how to work with and support disabled people. Online training does not provide hands on experience in assisting disabled people to use fitness equipment or a hoist, for example. Therefore, in-person training is needed for all activity instructors and anyone working at an activity centre on how to support disabled people.

> I don't believe there is any for swimming. However, I work as a football coach and I coach disabled people and for that I have had to pass a few courses, which are, erm it's on the FA website and it's specifically for coaching for disabled people. (FG3; Male; 25-34yrs old; Mobility, Long term pain, and Mental health impairment)

> The other thing for me would be also making sure that staff are trained… from doing a lot of our reviews, they may do an online course but they may never ever meet a person with a disability face-to-face. (FG6; Female; 18-24yrs old; Mobility, and Dexterity impairment)

Discussion

The aim of this study was to identify the key actions that would best support disabled people to be physically active. The findings highlight a range of recommended actions across multiple levels of the ecological model. Below we discuss some of the tangible actions needed and the roles of different stakeholders.

Highly trained centre staff and activity instructors are critical for enabling disabled people to feel supported to be physically active. There is a need for improved training for activity providers, including education on the variety of different disability and impairment types, and how to adapt activities to meet varying needs. This should be mandatory for anyone delivering activities. A review of existing training content across the range of available courses (for facility staff and instructors) would highlight examples of good practice and gaps in the current training provision. Continued Professional Development should also be provided through on-site workshops and seminars on how to support disabled people and improve the accessibility of activity sessions [11]. There is evidence of policy developments in this area. For example, the new UK sport and physical activity strategy, 'Get Active', released in August 2023 [19], identifies the need to improve the promotion of disability sport, ensure activity providers and facilities are able to adapt and provide a warm welcome to disabled people with varying needs, challenge discrimination, and increase diversity among the sport and physical activity sector [17]. Actions to address the strategy's aims were specified, such as investing over £300 million to improve existing and provide new facilities, as well as establishing a national physical activity taskforce which will bring together government departments and stakeholders from across the activity sector to develop a clear consensus on what and how improvements should be made. However, the impact is yet to be determined.

The need for improvements to the accessibility of activity facilities and equipment was frequently mentioned during our focus groups and is consistent with previous research [11,12]. To address this issue, Riley et al.(2008) recommend that activity providers conduct an accessibility assessment of their centres, review the findings with individuals experienced in accessibility and disability, and develop an action plan for improvements, with a nominated person or persons accountable for implementing the plan [22]. This would hold providers accountable for improving their activity provision for disabled people. Consulting with disability organisations and disabled people would encourage an enhanced

understanding of the required improvements to facilities. At the policy level, minimum standards for the accessibility of activity centres may be necessary to ensure that disabled people with varying impairment types have equitable access. With improved accessibility of facilities and an upskilled workforce, activity providers would be well positioned to increase the number and variability of physical activity opportunities available to disabled people.

Public transport to activity centres is essential to supporting disabled people to access activity provision. Disabled people are less likely to drive or live in a household with access to a car [23], and are more likely to use local bus services than non-disabled people [23]. The use of public transport can facilitate disabled people's participation in a variety of activities including visiting friends and doing exercise [24]; however, it is not mandatory for leisure facilities to be accessible by public transport. The leisure sector needs to work closely with the transport sector and local government planning departments to ensure there are regular public transport services to current and future facilities, and that the timetabling of these services aligns with the scheduling of activities and classes. This will support disabled people, and others reliant on public transport for travel, to access activity provision.

The cost of activity classes and gym memberships can limit both disabled and non-disabled people's ability to be physically active. Disabled people, in particular, are more likely to be unemployed [25], with those who are employed typically being on lower-than-average incomes, resulting in less discretionary spending [26]. Some leisure facilities offer free or discounted activities and memberships to disabled people and individuals who may not otherwise be able to afford it, however there is no statutory requirement for councils to provide these discounts [27]. Support workers can positively influence a disabled person's participation in an activity [28], however this usually comes at a cost to either the disabled person or the carer's work organisation, which can restrict support workers participation. Activity providers and governments need to consider reduced or free activity classes for disabled people, support workers of disabled people, and people on low income, to help widen activity choices and support participation.

Societal attitudes have a widespread influence on disabled people, including their confidence to take part in physical activity, which is consistent with previous research [10]. Knowledge and understanding of disability among the general public, as well as contact with disabled people, can influence public attitudes [29]. Improvements to disability campaigns is one method of improving people's knowledge and awareness of different disabilities and health conditions. The 'We are Undefeatable' campaign [30] developed by 15 leading health and social care charities, aims to encourage people living with a range of long-term health conditions to be active. As part of this campaign, a television advert has been created showing people with different health conditions doing activities that suit their needs. The impact of this campaign is yet to be determined; therefore, a rigorous evaluation is needed to assess its impact and inform future physical activity campaigns targeting disabled people.

We acknowledge the following strengths and limitations of this study. We recruited disabled people with a variety of impairments to gain a range of perspectives and experiences of physical activity participation. We used open questions, with minimal prompts, to enable participants to have open discussions. In addition, undertaking focus groups online meant we were able to reach individuals from across the UK and minimise accessibility restrictions. However, online focus groups can restrict the flow of conversations and participants can become distracted by other activities taking place in their home or surroundings. Although we recruited participants with different impairments, the findings and actions identified might not be appropriate for all disabled people. Moreover, participants were recruited through two sports organisations and have been previously involved in focus group discussions about physical activity. It is possible that this group is more active or has greater interest in the topic than the average person, thus their views may not reflect the wider disabled community. Recruitment through non-sport related organisations may provide different perspectives on the actions required to support disabled people to be active. Lastly, whilst this study focused on the views of disabled people; future research should engage with other key stakeholders, such as activity providers and policymakers, to explore their thoughts on the proposed actions, and the barriers and facilitators to implementation.

Conclusion

Findings from this study highlight a range of actions aligned to the ecological model to support disabled people to be physically active. Actions identified include mandatory training for activity centre staff and instructors on how to support disabled people, advancements to the accessibility of activity/exercise facilities and equipment, better access and frequency of public transport to activity centres, reduced cost of activity classes and gym memberships, and actions to improve societal attitudes towards disabled people. These actions highlight the need for a systems-based approach, combining actions across multiple levels of the ecological model, to ensure equitable access to physical activity for disabled people.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This research was supported by funding from the University of East Anglia Faculty of Medicine and Health Studentship awarded to the lead author.

References

[1] Durstine JL, Gordon B, Wang Z, et al. Chronic disease and the link to physical activity. J Sport Health Sci. 2013;2(1): 3–11. doi:10.1016/j.jshs.2012.07.009.
[2] Anderson E, Durstine JL. Physical activity, exercise, and chronic diseases: a brief review. Sports Med Health Sci. 2019;1(1): 3–10. doi:10.1016/j.smhs.2019.08.006.
[3] World Health Organization. WHO guidelines on physical activity and sedentary behaviour. Geneva: WHO; 2020.
[4] Sport England. Active Lives Adult Survey November 2022-23 Report; 2024
[5] Carroll DD, Courtney-Long EA, Stevens AC, et al. Vital signs: disability and physical activity–United States, 2009-2012. MMWR Morbidity Mortal Weekly Rep. 2014;63(18):407–413.
[6] GOV.UK. Family Resources Survey: financial year 2021 to 2022; 2023. https://www.gov.uk/government/statistics/family-resources-survey-financial-year-2021-to-2022/family-resources-survey-financial-year-2021-to-2022
[7] Latimer-Cheung AE, Pilutti LA, Hicks AL, et al. Effects of exercise training on fitness, mobility, fatigue, and

health-related quality of life among adults with multiple sclerosis: a systematic review to inform guideline development. Arch Phys Med Rehabil. 2013;94(9):1800–1828.e3. doi:10.1016/j.apmr.2013.04.020.

[8] Yazicioglu K, Yavuz F, Goktepe AS, et al. Influence of adapted sports on quality of life and life satisfaction in sport participants and non-sport participants with physical disabilities. Disabil Health J. 2012;5(4):249–253. doi:10.1016/j.dhjo.2012.05.003.

[9] Mcleroy KR, Bibeau D, Steckler A, et al. An ecological perspective on health promotion programs. Health Educ Q. 1988;15(4):351–377.

[10] Martin Ginis KA, Ma JK, Latimer-Cheung AE, et al. A systematic review of review articles addressing factors related to physical activity participation among children and adults with physical disabilities. Health Psychol Rev. 2016;10(4):478–494. doi:10.1080/17437199.2016.1198240.

[11] Rimmer JH, Riley B, Wang E, et al. Physical activity participation among persons with disabilities: barriers and facilitators. Am J Prevent Med. 2004;26(5):419–425. doi:10.1016/j.amepre.2004.02.002.

[12] Rolfe DE, Yoshida K, Renwick R, et al. Balancing safety and autonomy: structural and social barriers affecting the exercise participation of women with disabilities in community recreation and fitness facilities. Qual Res Sport Exerc Health. 2012;4(2):265–283. doi:10.1080/2159676X.2012.685099.

[13] Williams TL, Ma JK, Martin Ginis KA. Participant experiences and perceptions of physical activity-enhancing interventions for people with physical impairments and mobility limitations: a meta-synthesis of qualitative research evidence. Health Psychol Rev. 2017;11(2):179–196. doi:10.1080/17437199.2017.1299027.

[14] Richardson EV, Smith B, Papathomas A. Disability and the gym: experiences, barriers and facilitators of gym use for individuals with physical disabilities. Disab Rehabil. 2017;39(19):1950–1957. doi:10.1080/09638288.2016.1213893.

[15] Activity Alliance. Annual Disability and Activity Survey 2022-23; 2023.

[16] Ives B, Clayton B, Brittain I, et al. 'I'll always find a perfectly justified reason for not doing it': challenges for disability sport and physical activity in the United Kingdom. Sport Soc. 2021;24(4):588–606. doi:10.1080/17430437.2019.1703683.

[17] Department for Culture Media & Sport. Get Active: a strategy for the future of sport and physical activity. 2023. https://www.gov.uk/government/publications/get-active-a-strategy-for-the-future-of-sport-and-physical-activity/get-active-a-strategy-for-the-future-of-sport-and-physical-activity#executive-summary

[18] Activity Alliance. 2021. https://www.activityalliance.org.uk/

[19] Active Norfolk. 2023. https://www.activenorfolk.org/

[20] Kroll T, Barbour R, Harris J. Using focus groups in disability research. Qual Health Res. 2007;17(5):690–698. doi:10.1177/1049732307301488.

[21] Braun V, Clarke V. Using thematic analysis in psychology. Qual Res Psychol. 2006;3(2):77–101. doi:10.1191/1478088706qp063oa.

[22] Riley BB, Rimmer JH, Wang E, et al. A conceptual framework for improving the accessibility of fitness and recreation facilities for people with disabilities. J Phys Act Health. 2008;5(1):158–168. doi:10.1123/jpah.5.1.158.

[23] Department for Transport. Transport: Disability and Accessibility Statistics, England 2020. 2021. https://assets.publishing.service.gov.uk/media/614a16fad3bf7f05b7bcb6d4/transport-disability-and-accessibility-statistics-england-2020.pdf

[24] Páez A, Farber S. Participation and desire: leisure activities among Canadian adults with disabilities. Transportation. 2012;39(6):1055–1078. doi:10.1007/s11116-012-9385-x.

[25] Office for National Statistics. Outcomes for disabled people in the UK: 2021. 2021. https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/disability/articles/outcomesfordisabledpeopleintheuk/2021/previous/v1

[26] Office for National Statistics. Disability pay gaps in the UK: 2021. 2021. https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/disability/articles/disabilitypaygapsintheuk/2021

[27] Local Government Association. Parliamentary debate: Government support for leisure centres. 2022. https://www.local.gov.uk/parliament/briefings-and-responses/parliamentary-debate-government-support-leisure-centres

[28] Peterson JJ, Lowe JB, Peterson NA, et al. Paths to leisure physical activity among adults with intellectual disabilities: self-efficacy and social support. Am J Health Promot. 2008;23(1):35–42. doi:10.4278/ajhp.07061153.

[29] Wang Z, Xu X, Han Q, et al. Factors associated with public attitudes towards persons with disabilities: a systematic review. BMC Public Health. 2021;21(1):1058. https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-021-11139-3 doi:10.1186/s12889-021-11139-3.

[30] We Are Undefeatable. 2024. https://weareundefeatable.co.uk/