Disability, Sport and Physical Activity

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Since we wrote the chapter for the 1st Edition of this *Handbook* (Smith & Sparkes, 2012), research on disability, sport and physical activity has grown considerably. Our aspirations then remain modest in terms of what can be covered in this 2nd Edition. This chapter does though build on the 1st Edition by offering new insights throughout three sections. Section I is concerned with disability and sport. Here recent work on para-sport, social activism, and sporting cyborg are focused on. Section II attends to disability and physical activity. Our focus in this section is on recently evidenced health benefits, barriers to being active, physical activity messengers and forms of communication like infographics, behavioural change strategies, and some possible problems associated with physical activity. Having considering several challenging issues within Section I and II, Section III closes the chapter by considering some possible directions of travel for research on disability, sport and physical activity.

**Disability Sport**

Research has focused on numerous aspects of disabled sport. For example, classification in Paralympic sport is an issue that has been elaborated on recently (e.g., Howe, 2017). Researchers have attended to the structure, development and governance of the Paralympics, the rise of China as Paralympic superpower, and technology, doping and boosting in Para-sport (e.g. Brittain & Beacom 2018). Research has progressed also by attending to disability sport in terms of coach education, the characteristics of a successful coach, and how disabled people might prefer to be coached (e.g., Culver & Werthner, 2018; Martin, 2017; Townsend, Cushion & Smith, 2018). In order to promote full and effective participation in sport, and determine whether disabled people experience this basic human right, researchers have recently focused attention on not only
the quantity of participation, but also the quality. For instance, as Allan et al. (2018) found in their study of the meanings and satisfactions that disabled adults derived from participating in parasport, what constitutes quality participation changes over times and involved various elements. These included autonomy – having independence, choice, or control; belongingness – a sense of belonging or acceptance in a group; challenge – feeling appropriately challenged; engagement – feeling engaged, focused, and motivated; mastery – experiencing achievement, competence, and self-confidence; and meaning – contributing towards obtaining a personal or socially-meaningful goal.

Over recent years the research agenda has expanded moreover to include disabled spectators of sport. For example, work on English football (soccer) fans by García, Wolff, Welford and Smith (2017) examined access to stadia, the role that Disabled Supporter Associations (DSAs) might play within football clubs, and what hampers DSAs regarding enhancing access. This research highlighted that access to and through the stadia was not only restricted by physical barriers. Clubs often provided limited information for disabled fans about buying away tickets and what to expect at the stadium. Once inside the ground disabled fans often at times felt unsafe and, with limited opportunities for social relationships to be fostered inside the ground, their enjoyment of the match-day experience limited. Further, whilst DSAs have a pivotal role in helping clubs improving their provisions for disabled fans and exercising power in varying degrees, they were hampered to make positive changes by a lack of resources, a limited appreciation that their voices really mattered, and an almost exclusive focus by clubs on physical access. Various suggestions were offered to improve the situation and, in turn, counter the discrimination disabled fans faced. These included expanding clubs’
understanding of inclusivity, having a dedicated liaison officer for disabled supporters, and taking legal action when the human rights of disabled people are not met by a club.

Regarding disability sport, the media in recent years has also begun to receive attention. For instance, Grue (2016) contextualised the media coverage of Paralympic games as ‘inspiration porn’ for non-disabled viewers. Moreover, through a discourse analysis of media texts (broadcast, print and online) McPherson, O’Donnell, McGillivray and Misener (2016) examined how para-athletes were portrayed before, during and after the Glasgow 2014 Commonwealth Games. They highlighted that media representations around these Games were, in many instances, progressive in that they drew attention to the multiple disabling barriers associated with negative attitudes and restrictive physical structures inconsistencies. However, they also argued that the media representations of para-athletes at these Games depicted male and female para-athletes as consistently inspirational.

Although McPherson et al (2016) did not connect this to the idea of ‘inspiration porn’, they did suggest that remnants of the supercrip narrative were evident in these ‘inspirational’ media representations of para-athletes. This included when para-athletes are ‘branded’ as superhuman. The central feature of the supercrip discourse is success through individualistic attributes of personal courage, hard work and dedication in overcoming the ‘tragedy’ of their bodies (Smith & Sparkes, 2012). Like the idea of ‘inspirational porn’, the supercrip discourse has faced significant critique for promoting a medical model of disability and failing to address broader societal prejudice and exclusion (see also Shakespeare, 2016). Furthermore, the supercrip discourse has been critiqued for what it can do on disabled people. For example, it has been argued that the
discourse makes sporting participation appear unattainable for many disabled people. Thus, rather than inspiring disabled people to play sport, when para-athletes are depicted as a supercrip, inspirational, or superhuman this might ‘put off’ some people from wanting to engage in sports (Braye, Gibbons, & Dixon, 2013). This is one reason why some organisations, such as Activity Alliance (formerly English Federation of Disability Sport) in England, have moved away from using representations of para-athletes to promote more active lifestyles to disabled people.

Another issue that has recently been explored in terms of disability sport is sporting event legacies. Disability sport governing bodies, like the International Paralympic Committee (IPC), claim and promote that events like the Paralympics offer social change legacies (www.paralympic.org). This includes enhancing the sport participation of disabled people, enhancing awareness of disability, positively change attitudes, and developing more accessible infrastructure in the host region. However, the emerging research provides a more complex picture than what disability sport governing bodies claim. For example, and keeping in mind critiques of the supercrip noted, there is no robust evidence to support claims that events like the Paralympics increases the number of disabled people participating in sport. Moreover, as Brittain and Beacom (2016) noted in relation to London 2012 Paralympics, claims by organisations, government and sporting associations that Paralympics improved the lives of disabled people in the UK are at odds with findings from disabled peoples organisations (DPOs). These DPOs argued that any Paralympic legacy must be viewed in the context of large scale benefit cuts in the UK at the time that affected disabled people directly and societal attitudes towards disabled people (e.g. portrayed as benefit scroungers in the media).
At the same time, quantitative (Brittain & Beacom, 2016) and qualitative (Hodges, Jackson, Scullion, Thompson, & Molesworth, 2014) work suggested a positive shift in public attitudes towards disability in the UK as a result of the Paralympic Games. For example, fewer attitudes of sympathy or pity towards disabled people were reported partly as a result of watching the Paralympics (Hodges et al., 2014). Moreover, quantitative research by Paradis, Misener, McPherson, McGillivray and Legg (2017) done pre and post the Glasgow 2014 Commonwealth Games and/or the Toronto 2015 ParaPan Am Games (where parasport was separated from the ‘able-bodied’ sport) revealed that both events had a positive impact on volunteer awareness levels of disability and accessibility-related issues. The events also positively impacted on volunteer attitudes towards disabled people. Notably, the integrated event (Commonwealth Games) had a greater impact than the non-integrated event on attitudes. All this noted, the attitude levels towards disability and parasport were already relatively positive among volunteers pre-Games for both events Paradis et al. found. This then raises questions about not just about who volunteers for events, and why. Challenging questions remain about how transformative are truly events like the Paralympics in terms of attitude change, and what is the legacy reach of these events beyond those who are already positively predisposed toward disabled people in society.

Drawing on data collected as part of their study of the social legacy of the Glasgow Commonwealth Games and Toronto Parapan American Games, McGillivray, McPherson and Misener (2018) further examined the extent these events create more accessible infrastructure (e.g. sport and recreation facilities, transportation). They argued that both the Games provided the financial support and urgency to ensure sport venues
were made more accessible. For example, accessible sports facilities that exceeded international accessibility standards were created. They also suggested that good venue-to-venue transport networks were developed in the name of the Games and enhancements were made to signage to ensure the Games-time experience met sanctioning body and visitor expectations.

Yet, McGillivray et al. (2018) also observed that such improvements to access were often temporary. That is, the short-term demands of Games delivery were addressed but long-term access considerations were not. For instance, they found that in many event venues, to meet accessibility requirements, temporary overlays were used for the duration of the Games but removed once the event was complete. They moreover argued that the voices of disabled people themselves were not heard adequately in decision-making, as priority was given to delivery over longer-term legacies. Thus, whilst the two events offered some short-term benefits, McGillivray et al. proposed that they did little to address the systematic barriers disabled people face in the urban environment, post-Games. On the one hand, then, organising committees and sporting organisations may pronounce an accessibility agenda has been achieved during the Games. But on the hand, once the host organization disbands after completion of the Games, the social legacy in terms of improving access to the local environments is limited at best. Indeed, as argued by former Paralympians themselves, whilst the Paralympics brings some benefits, it can also counterproductive to the lives of disabled people beyond sport (Braye 2016; Howe & Silva, 2018; Peers, 2012). Such points raise issues not only about the claims sport organisations make. They also raise questions about how active Paralympians themselves view their role in terms of social change.
Although little research exists on the topic of social change and justice, a few studies from the UK and Canada have focused on the experience of Para sport athlete activism. In Canada, Bundon and Hurd Clarke (2015) explored the various advocacy styles that Canadian Para sport athletes adopt to promote changes within Para sport contexts (e.g. creating more accessible and inclusive sports environments). They described a continuum of advocacy styles amongst Para sport athletes. These included more congenial styles (e.g. making friendly and quiet suggestions for change), to the more confrontational styles (e.g. demanding inclusive policies and insisting on rights), to a mixture of congenial and confrontational styles (e.g. engaging in a power struggle). Athletes reported that the choice of strategy was influenced by the perceived backlash and effectiveness of advocating. Bundon and Hurd Clarke further argued that within disability sport contexts, feelings of exclusion can fuel advocacy engagement, and that advocacy competence improves with practice. They also noted that, within disability sport contexts, it is entirely possible to be included in policy but remain excluded by practices. Importantly, Bundon and Hurd Clarke highlighted that inequalities within disability sport contexts should be viewed as inexplicitly linked to wider inequalities in society.

In another study, Smith, Bundon and Best (2016) highlighted that the 36 elite level UK para-athletes they interviewed and observed in different contexts, including social media, often adopted an ‘athlete activist identity’. By this it was meant that the para-athletes advocated for social changes inside sport by calling for sporting organisations to provide them with the same opportunities to excel in sport as Olympic
athletes. The majority of the para-athletes further defined themselves as an ‘athlete first’ and viewed activism as not part of who they were.

In contrast, some people in the study by Smith et al. (2016) did identify as ‘disabled first’. That is, they preferred to identify as a ‘disabled athlete’. Partly that was done to position to show they were proud to be disabled. It was also performed to help enact an ‘activist identity’. This referred to a form of activism in which athletes used their platform as a sports performer (e.g. visibility) to speak out or build awareness about a social cause or issue. For example, the few para-athletes who adopted an activist identity would call-out discrimination in public, sign petitions for disability rights, produce blogs or tweets that highlight disability inequality, and explicitly utilise their status as athletes to challenge disability oppression.

In answering the question how all was this made possible, Smith et al. (2016) noted that for the athletes who defined themselves as an ‘athlete first’, they lived in a ‘sporting bubble’ that, until retirement, largely shielded them from everyday discrimination in society. In contrast, para-athletes who defined themselves as ‘disabled first’ and who were still competing spent time outside the ‘sporting bubble’. They were, in turn, hailed - interpellated - to political action after hearing stories of oppression outside sport. Importantly for athletes, organisations, and associations who are interested in medals, these ‘disabled athletes’ reported that acts of activism did not negatively impact on their sporting performances. This countered the assumptions held by the majority of the participants who described themselves as ‘athletes first’. This group of athletes assumed that the emotional effort involved in political activism would negatively impact on their performance. They also believed that they risked being de-selected from
the Paralympic team if they were seen to be political. Thus, again we find tensions and contradictions between what organisations like the IOC claim they are promoting (i.e. social change through para-sport) and what disabled people themselves believe they can do (i.e. enact social change through activism) if they are to succeed inside para-sport.

Outside para-sport, but intimately part of the process of being an athlete, research has recently attended to retirement from elite, disabled sport. For example, both Braye (2016) and Smith et al. (2016) described how some athletes, following retirement from sport, engaged in various forms of activism to challenge the discrimination they now faced after leaving the ‘sporting bubble’. For example, and supported in other work by Bundon, Ashfield, Smith, and Goosey-Tolfrey (2018), some retired para-sport athletes reported that they encountered discriminatory barriers to employment after leaving sport. They also were moved to activist behaviours when, upon transitioning outside of the ‘sport bubble’, they witnessed numerous stories from ‘non sporty’ disabled people about how they suffered due to oppressive material structures, discourses, attitudes, and practices in society. Echoing some of the media research, some athletes further warned others that because Paralympic athletes are the most publicised disabled people in most societies there is a damaging expectation that all disabled people ought to be able to complete in sport and be supercrips.

Moreover, some now retired athletes in the study by Smith et al. (2016) advised currently competitive athletes that they need to reflect more on becoming politically active or, at least, have a better appreciation of the wide ranging discrimination disabled people face daily – and which they would likely face when retired, along with health and wellbeing problems (see also Bundon et al., 2018). As one male participant said:
Retiring from competitive sport hit me psychologically. It left me struggling. I wasn’t happy. I was miserable a lot. I lost a lot of confidence too. And to add to all this, I woke up in a world that I didn’t really recognize … When I retired and was out of the sporting bubble I started to see the world very differently. My impairment was a route into professional sport, but now society treats me like a second-class citizen. It’s left me first angry, but soon more defiant, especially when I was told, by strangers, that I’m a drain on society and would be better off dead. I wasn’t going to let people off the hook and I felt I needed to do something. Battling for disability rights is now a daily part of my life, it’s part of who I am now … And if I could offer one bit of advice to athletes in sport now it would be: ‘Don’t believe all is rosy for disabled people. It isn’t. When you retire, you’ll find this out pretty quickly and retirement will be even more difficult because of the discrimination we face. Retirement will be much more difficult to adjust to. Start being politically active as an athlete, or at least aware. Use your status as an athlete to bring attention to disability rights if you can … It isn’t time consuming. For instance, sending a tweet highlighting problems only takes 30 seconds.’ (Smith et al., 2016, p. 145)

Outside of major event sport (i.e. Paralympics and Commonwealth Games) other arenas of engagement have been explored. For example, Sparkes, Brighton and Inkle (2018a) focused on the life history of a professional male wheelchair bodybuilder to explore the impact of the binary configuration of disabled bodies as opposite and unequal to able bodies, and whether or not contemporary bodybuilding provides a space where this dualism can be overcome. Drawing on notions of the bodybuilder as body-garde,
which involved a process of ‘enfreakment’ that disrupts and transcends contemporary bodily ideals, they suggested variable self-reflexive bodybuilding projects can accommodate contingent conceptualisations of perfection, including disability, and that this has implications for disabled bodies and identities more broadly.

With regard to the experiences and meanings of disability sport for those who became involved in it following a spinal cord injury, Sparkes, Brighton and Inckle (2018b) draw on data from a 4-year ethnographic study to focus on the process of becoming a disabled sporting cyborg. Their analysis reveals the following phases in this process: from taken-for-granted to techno-survival cyborgs; rehabilitation centres and becoming a technically competent cyborg; everyday life as an embodied cyborg; and becoming a disabled sporting cyborg. The dynamics of each phase, how they related to each other, and how they shaped body-self-technology relationships over time were highlighted, as were the consequences of cyborgification and the implications of this process for constructions of ability and disability. Sparkes and his colleagues raised questions regarding the structural and ethical implications of cyborgification, particularly in terms of the validation of certain kinds of bodies at the expense of others and the role of technology in reproducing social inequalities (see also, Apelmo, 2017).

**Disability and Physical Activity**

Working with Disability Rights UK and Public Health England, a recent review of 237 quantitative studies, 18 qualitative studies, and over 15 systematic reviews and meta analyses by Smith, Kirby, Skinner, Wightman, Lucas, and Foster (2018a) revealed that there was sufficient evidence to recommend that physical activity can improve health and reduce the risk of chronic diseases for disabled adults. Evidence collected in the
review suggested that 2 sets of challenging strength and balance exercises twice per week were needed for health benefits. It was also highlighted that for substantial health gains disabled adults should do 150 minutes of physical activity at a moderate to vigorous intensity. At the same time there was evidence that disabled adults can accrue health benefits when they engage in physical activity at a lower intensity (e.g. moderate) and duration (e.g. 60 minutes per week), but these benefits were not as large when activity is performed at a higher intensity and duration. Thus, whilst something is better than nothing, it was concluded that for health benefits more is better. This work informs the forthcoming UK Chief Medical Officers’ (CMOs) physical activity guidelines.

The findings regarding health benefits and the frequency and intensity of physical activity from the review by Smith et al. (2018a) were echoed in another review that came out the same year (Physical Activity Guidelines Advisory Committee, 2018). This review provided the base for very recent 2nd Edition of the Physical Activity Guidelines for Americans, including those people with disabilities in the US (https://health.gov/paguidelines/second-edition/pdf/Physical_Activity_Guidelines_2nd_edition.pdf). A close inspection of the US review reveals however that it was framed, knowingly or unknowingly, by a medical model. For example, in the report impairments like spinal cord injury and intellectual disability were discussed as ‘conditions’ or ‘disorders’. Disability organisations and disabled people’s voices were also omitted in the production of research questions, the identification of which research methods (e.g. randomised control trials) to include and exclude, and what future recommendations should be made. In other words, in contrast to
the review by Smith et al. (2018), the only experts involved were the ‘scientists’. We pick this issue later via co-production.

Despite the benefits of physical activity for health, disabled people are more likely to be inactive when compared with non-disabled people. For example, in the United States, 54% of non-disabled people reported achieving 150 minutes/week of moderate to vigorous intensity physical activity, whereas only 21% of disabled Americans reported meeting that figure (Carroll et al., 2014). In the UK it was reported that 43% of disabled people did less than 30 minutes per week of activity, whilst for non-disabled it was 21% (Sport England, 2017). There are many reasons for such health disparities and inequalities. These reasons are commonly captured under the issue of ‘barriers’. In numerous countries similar barriers to physical activity for disabled people have been identified (Martin Ginis, Ma, Latimer-Cheung, & Rimmer, 2016; Richardson, Smith, & Paphthomas, 2017; Wadey & Day, 2018). These include inaccessible physical environments (e.g. poor transport to green space to be move in, too narrow gym doorways for wheelchair access, and inaccessible bathrooms or changing rooms), unsuitable equipment (e.g. no pool chair or arm cycles), cost, ‘over-protective’ others, personal concerns about safety, bad weather, limited social support, lack of motivation, apprehension of attracting unwanted attention, and negative societal attitudes about disability from others (e.g. customers and staff of leisure centres).

Another well documented barrier to being physically active is a lack of accessible knowledge/information about physical activity (Jaarsma, Haslett, & Smith, in-press; Martin Ginis et al., 2016; Wadey & Day, 2018). That includes not only knowledge about what opportunities are available to be active, but also what benefits there are to being
active, how much activity should one do, and how safe is physical activity. Thus, to help promote physical activity it is vital that appropriate audience specific messages are created to help translate knowledge about active lifestyles. Led by Professor Martin Ginis, work in Canada is addressing this in terms of spinal cord injury by producing and disseminating evidence-based and audience specific information on physical activity (http://sciactioncanada.ca).

One excellent way the team in Canada do this is via physical activity tool-kits that are shared to people with spinal cord injury by peers, researchers, and user-led or community based organisations, for instance. Further, research has identified stories to be an effective way to disseminate physical activity knowledge about spinal cord injury (Smith, Tomasone, Latimer-Cheung, & Martin Gins, 2015). As another example, Smith, Kirby, Skinner, Wightman, Lucas, and Foster (2018a, b) co-produced an evidence-based infographic to communicate physical activity recommendations for a range of experiences of disability. The infographic was chosen as a useful format by disabled people to communicate knowledge about physical activity, and was subsequently endorsed by the UK Chief Medical Offers’ (CMOs) and is promoted by Public Health England.

(http://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/748009/Physical_Activity___Disability_Infographic.pdf). The infographic is currently also being translated into multiple languages by different disability groups around the world. Key however here was the importance of co-production in creating the infographic.
Smith et al. (2018a b) worked with over 350 disabled adults (people who have long term physical (e.g. spinal cord injury), sensory (e.g. visual impairment), cognitive (e.g. learning difficulties), and/or mental impairments (e.g. depression)) plus 10 disability organisations and 50 health professionals to understand how the evidence-based physical activity recommendations created from the review could be best communicated. During the process of working with these groups on multiple occasions several challenging issues emerged. One challenge was that the disabled adults, organisations and health professionals recommended unanimously that affect (e.g. physical activity makes you feel good) should be at the heart of any physical activity messages for disabled adults. That was challenging as, on the hand, there was little high quality research evidence on affect and physical activity messages to base decisions on what to include in the infographic, and how it should be presented. Yet, on the other hand, the experiential knowledge of the disabled adults shared during the co-production process revealed the importance of affect for them in getting physically active and enabling them to stay active. They thus strongly recommended that researchers and policy makers should give pleasure, fun, and good feelings serious consideration in future guideline development and public health campaigns. Despite ‘scientific’ evidence only just emerging, and the challenges of working with Government who prioritised that evidence, affect was placed at the heart of the infographic.

As part of creating audience specific messages about physical activity through an infographic, the co-production process also highlighted that sedentariness was an important concern for many disabled adults (Smith et al., 2018b). However, the disabled people involved unanimously stressed that any messages about sedentariness must avoid
ableism. Although often unintentional, numerous messages about sedentariness in the physical activity domain around the world connect with ableism. Ableism refers to the prejudice in favour of able-bodied people and the discrimination against disabled people. As examples, ableism in sedentary messaging offered by many researchers or policy makers in the physical activity domain takes the form of messages like ‘Stand up, sit less’ or ‘Sit less, move more’. As many of the disabled people said during the co-production process, such messages favour certain bodies (e.g. those that can stand or easily avoid sitting) whilst discriminating against others (e.g. wheelchair users). They thus stated that if policy makers, researchers, sporting organisations and so on are to not discriminate against disabled people and embrace inclusivity regarding sedentariness, it was vital that any sedentary messages avoid ableism. Hence, rather than promoting ‘Stand up, sit less’ and so on, new messages were created with disabled adults and included in the final infographic. Importantly also, these insights were shared on multiple occasions with the UK Sedentary Behaviour Group that is advising Government about sedentariness and creating new guidelines to be published in 2019. Let’s watch this space to see if ableism is infused in these guidelines and messaging!

Along with producing more accessible information on physical activity, researchers have also sought to identify who disability people believe are the most credible messengers to promote physical activity. Messengers are a vital ingredient of effective physical activity knowledge translation. Understanding who the audience considers to be credible, preferred sources of information, is key to ensuring any information created is taken on board rather than ignored. From the perspective of promoting physical activity to disabled people, researchers have identified several key
messengers (Jaarsma et al., in-press; Letts, Martin Ginis, Faulkner, Colquhoun, Levac, Gorczynski, 2011; Martin Ginis, Nigg, & Smith, 2013; Smith et al., 2018b; Sparkes, Martos & Maher, 2017). These include peers with impairments and community-based organisations.

Another key messenger trusted to promote physical activity for disabled people are health professionals, notably physiotherapists. Despite being identified by disabled people as important, this does not mean that messengers like physiotherapists will engage in physical activity promotion. For example, Williams, Smith and Papatheomas (2018) investigated physical activity promotion among physiotherapists working in spinal injury rehabilitation units/centres. They found that these health professionals valued physical activity for numerous health benefits. However, few actively promoted physical activity. One reason for this was that physical activity promotion was deemed to be not part of their role as physiotherapists. A further reason was the perception held by some physiotherapists that not all people with spinal cord injury, especially those with higher level injuries and subsequent paralysis, would want to see others with less paralysis and more function participating in physical activities. Structural barriers, time constraints, and limited funding from the healthcare system to support physical activity initiatives were other barriers that the physiotherapists highlighted for not promoting physical activity to people with spinal cord injury.

In addition to physiotherapists, peers, and community-based organisations, social workers been identified by disabled people as another credible and desirable messenger for promoting physical activity or sport. They have the potential advantage of reaching millions of disabled people. That is because in many countries they are a vital and regular
point of contact for disabled people. For example, with the implementation of the Care Act in the UK in 2014 social workers are often important in assessing the needs of disabled people, providing face-to-face personal budget support, and producing care and support plans with them. Such plans can legitimately include the use of personal budgets to become or stay physical active for wellbeing, health, and independence purposes. Moreover, social workers regularly deliver community based care services that can provide multiple opportunities to communicate physical activity information and support the wellbeing and human rights of disabled people. Thus, as Paylor (2010) argued:

Social Workers could have a valuable role to play in promoting the benefits of sport and physical….Social Workers are in an ideal position to recognise those people which need to be supported and encouraged to participate in a greater level of physical activity. This could contribute to lowering the demands upon health and social services in the future, whilst improving the wellbeing of those people working with services. (p. 86)

Whilst social workers are highly credible and believable physical activity messengers that can reach many disabled adults, no research on how they might promote a more active lifestyle exists. Future work needs then work with this group. That research might include identifying the appetite among social workers to promote physical activity, possible barriers and facilitators to promotion, and the co-production of physical activity guidelines specifically for social workers. As part of this all, research will need to address the challenge of disabled people being accused of being a ‘welfare scrounger’ when they use personal budgets to support their physical activity choices. That is also necessary because there may be the perception that if a disabled person can exercise or play sport
then they should automatically not be eligible for a personal budget. To keep their budget, they may then believe they should stop using their budget for physical activity or sport purposes. In so doing, their personal choices and control over how to use a budget is, like in the past, restricted.

In addition to creating audience-specific messages via infographics and other formats to tackle the lack of credible information disabled people have about physical activity, and identifying who are most desirable messengers, to address further how to promote physical activity researchers have increasingly focused attention on behavioural change strategies. The journal special issue in volume 37 of *Psychology of Sport and Exercise* in 2018 on ‘Disability Research in Sport and Exercise’ provides several papers that addresses this issue. For example, a meta-analysis of physical activity interventions in disabled people by Ma and Martin Ginis (2018) concluded that interventions to increase physical activity in disabled people are effective. That was especially so when theory was used to guide the development of behavioural change techniques to test in interventions. Against this background arguing that behavioural change techniques are effective, systematic reviews by Jassrsma and Smith (2018), and Tomasone et al. (2018) sought to identify what types of techniques are most useful for enabling disabled people to change their physical activity behaviour. The results included barrier identification and problem solving, goal setting, reviewing behavioural goals, action planning, motivational interviewing, and social support behavioural change techniques. Thus, a combination of these techniques were recommended to organisations and individuals to help promote physical activity among disabled people.
Whilst there is a growing amount of research espousing the benefits of physical activity, and how it might be promoted, it is important to remember that physical activity does not appeal to everyone. Nor is it a panacea for all health issues. Moreover, physical activity promotion should in some instances come with various cautions. For example, in their examination of the meanings of physical activity in the lives of people with spinal cord injury researchers (Papathomas, Williams, Smith, 2015; Perrier, Smith, & Latimer-Cheung, 2013; Monforte, Pérez-Samaniego, & Devís-Devís, 2018; Monforte, Pérez-Samaniego, & Smith, in-press; Williams, Hunt, Papathomas & Smith, 2018) have highlighted the dangers of what was termed exercise as restitution. Restitution involves the goal of recovering from spinal cord injury through extensive exercise. It holds the basic developmental storyline of ‘Yesterday I was able-bodied, today I’m disabled, but at some point in the future through exercise I’ll be able-bodied again.’ This narrative acts for and on disabled adults by providing the motivation to exercise to walk again.

Although the exercise is restitution narrative can be beneficial by fostering and supporting a determination and commitment to exercise, there can be negative consequences in pursuing a cure via exercising. The narrative promotes a medical model of disability and depicts disability as a tragedy that must be overcome. The restitution as exercise narrative can foster the hope and expectation of cure, but this at this present time is extremely unlikely to be achieved. Failure to achieve the goal of restitution when one is so wedded to that narrative can in the long term harm wellbeing and damage relationships. Another concern with restitution is that it is a commodity that some disabled people can purchase and others cannot, thereby perpetuating inequalities and reducing human rights to economic privilege. Moreover, the narrative of exercise as
restitution ignores the socio-structural conditions that oppress disabled people and, without the right economic conditions in place to build home gyms and so on, restrict their exercise participation.

**Possible Directions of Travel**

Reflecting first on the directions of research put forward in our chapter within the 1st edition of this Handbook (Smith & Sparkes, 2012), it is interesting to note some progress. For instance, one direction we suggested was to expand the data collection methods used in research. Whilst qualitative interviews and cross sectional quantitative work still dominate the sport and physical activity research landscape on disability, different methods are being more widely used. These include visual methods, observation, digital methods, timelining, cohort studies, and randomised control trials. In the future, researchers might also expand understandings of ‘data’ to include what has been termed transgressive data (see Koro-Ljungberg, MacLure & Ulmer, 2018). It can also extend into the application of different analytical methods, such as the use of conversational analysis in research.

Another future direction suggested in our chapter in the 1st edition of this Handbook was the study of ‘green’ (e.g. woodlands) and ‘blue’ (e.g. the sea) settings. Disability research is now developing in this area. For example, drawing on ethnographic research Macpherson (2016) explored the experiences of members of blind and visually impaired walking groups who visited areas of the Peak District and Lake District in Britain. She highlighted how these groups of disabled people derived wellbeing and health benefits by visiting and walking in these green spaces. The well-being and health experiences of visually-impaired walking participants included the exploration of outside
of known (usually urban) routes, reaching summits and areas that have collective symbolic value, the facilitation of social networks, and improvements in physical fitness and self-reported weight loss or maintenance. In the future, following Bell, Leyshon, Foley, and Kearns (in-press), research on blue and green spaces might travel in more critical directions by drawing on post-humanist theories of social practice.

Along with these future suggestions, a major challenge and direction to move forward revolves around making a real difference. For example, as we have noted, events like the Paralympic might produce some short-term benefits, but we are a long way off these making a real difference to the lives of disabled people in the long-term. Research is still needed that documents what events do and don’t do. We also need more sport research committed to a praxis for radical change. However aspirational this might sound, making real change is a venture in which disabled people, academics, policy makers, sport organisations, governments, and local authorities all need to work together in alliance. Progress is being made, but much more is necessary to make changes that positively impacts widely on disabled people.

Needed also is research on physical activity that is committed to a praxis for radical change. Despite The United Nations Convention on the Rights of Persons with Disabilities, it is clear that disabled people continue to face profound barriers to physical activity that, in turn, exacerbate health inequalities. What is needed is not more and more work that identifies barriers. Rather, research is needed on how barriers in society can be changed so that disabled people, if they wish, can participate fully in physical activity. To help with this, much more physical activity (and sport) research needs to be co-produced. While it would be a mistake to say there is no co-produced work in our field, progress has
been slow. Mindful of such issues as ‘consultation fatigue’, the tensions between health promotion under neoliberalism and the emancipatory goals of disability movements, and pressures to tokenise and co-opt co-production, we need to direct more efforts to advance co-production in disability, physical activity and sport research. We also need more implementation research in community settings. To enable real change, researchers moreover need to develop systematic contacts with physical activity organisations, policy makers, political figures, the media, the professional press and with practitioners such as teachers, health workers, social workers, government functionaries. This includes working with disabled people not simply in the Global North, where the vast majority of sport and physical activity research is done. It also needs to include working with disabled people in Global South, where there is limited research on the topic (Mojtahedi & Hisayo Katsui, 2018).

Such directions of travel are not easy. But, if major changes are to happen in terms of access to quality physical activity experiences, and if people are to make real differences to sport participation, spectating, and legacy, then perhaps we should together engage in more radical and praxis focused research. We look forward to a future then that is less focused on what ‘is’, and more focused on what ‘could be’ or ‘ought to be’ (Gergen, 2015).
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