

The Participation of People with Intellectual Disabilities in Parasports

Jan Burns

(Canterbury Christ Church University, UK)

Introduction

The position of sport in the lives of people with intellectual disabilities has come a very long way and now plays a much more central role, from grassroots participation in local communities to a place on the podium at the Paralympics. This paper will describe this journey, the organisations involved, Paralympic inclusion and future developments, including lessons for Tokyo 2020. It will also evidence the impact that sports participation has on athletes, their families and society.

Definitions

When we talk about people with intellectual impairments we are talking about people who meet three specific criteria, as defined by the World Health Organisation: International Classification of Functioning, Disability and Health (WHO: ICF, 2001). These three criteria are:

1. Significant impairment in intellectual functioning, usually measured by an IQ test. This means that the person has deficits in their cognitive functioning, commonly called intelligence. This may include cognitive abilities such as attention, concentration, abstract reasoning and thinking, reaction time, mental processing, memory etc. Many IQ tests will have sub-tests, sometimes divided into domains such as verbal comprehension, working memory, processing speed and perceptual reasoning, providing subscale IQ scores and an overall IQ score. The common cut off used to identify intellectual disabilities is determined statistically, as two standard deviations below the average IQ of the population,

usually taken as a score of 70-75 and below. This constitutes about 2-2.5% of any population. Many people will have non-standard profiles across IQ tests, meaning that they may have strengths and weaknesses in different areas and IQ testing is not always an accurate science, with individual variance and variance between the tests affecting consistency.

2. Significant impairment in adaptive behaviour. The functional capacity of a person is not dictated by IQ alone, but is influenced by their context, personal resources, support and education. The results of these factors determine their ability to manage everyday activities, called adaptive behaviour. Tests of adaptive behaviour commonly include assessments of skills such as social behaviour, communication, numeracy and literacy, and self-care including items such as making meals, dressing, handling money and travel. Commonly these skills are grouped into three domains: social, conceptual and practical skills and tests provide a developmental score such that a person's adaptive skills will be compared to those across an age range and differences between their chronological age and their functional performance identified. Adaptive behaviour is very culturally dependent and tests must only be used on populations for which they have been developed. In many countries there are no standard tests of adaptive behaviour and this assessment is made by clinical observation and interviewing parents or carers.
3. Age of onset, usually taken as age 18. This is to establish that the impairment has been there throughout the whole developmental period and therefore will have had a pervasive impact. This distinction is important as there may be people who meet the first two criteria, but for whom their future trajectory is quite different. This includes people who have acquired some form of brain injury through an accidental trauma (e. g. head injury) or disease (e. g. tumour), after the developmental period. This means that these people already have many skills which may remain and they may also have the mental capacity to adapt their learning within the rehabilitation process to regain lost skills. Having intellectual disabilities throughout the developmental period means that both the cognitive skills are impaired and also the capacity to manage and compensate for this is also impaired, leading to greater overall impairment.

For a person to be identified as having intellectual disabilities all of these three elements must be present and they must be considered together by the professional within the diagnostic process. Within those identified as having intellectual disabilities there is much variation and sometimes the level of impairment may be described as mild, moderate, severe or profound, dependent on IQ scores.

The reason why an individual may have intellectual disabilities varies considerably, but includes genetic differences (e. g. Down syndrome, Fragile X); complications during pregnancy (e. g. foetal alcohol syndrome); birth complications (e. g. oxygen starvation) and diseases or toxic exposure (e. g. measles, meningitis, malnutrition) (Hatton & Emerson, 2015). Additional health problems are very common and increase the more the severe the intellectual disability. One recent population study in Scotland identified the mean number of additional health conditions as 11, and 99% of people with intellectual disabilities had at least one additional health condition (Kinnear et al., 2018).

As a consequence, many people with intellectual disabilities suffer secondary health conditions such as obesity, cardiac, respiratory and metabolic conditions. This results in the average longevity for people with intellectual disabilities being shorter than that of those in the mainstream population (Robertson, Hatton, Emerson, & Baines, 2015). Not only do intellectual disabilities lead to physical vulnerability, but also to psychological vulnerability (Dunham, Kinnear, Allan, Smiley, & Cooper, 2018; Hatton, Emerson, Robertson, & Baines, 2018). Sadly, the stigma associated with intellectual disabilities is still pervasive and can lead to people being socially excluded, exploited and bullied. The impaired cognitive capacity of the individual to manage these challenges, together with social and economic disadvantages, brought by low income and unemployment, reduces the psychological resilience of the individual and increases prevalence of mental health problems. Such problems include both common disorders such as anxiety and depression and also more severe and enduring problems such as psychosis (Hatton et al., 2018).

Nevertheless, many people with intellectual disabilities are extremely resilient and despite the challenges put before them lead very fulfilling lives. However, it is the responsibility of society to provide the opportunities and support required to include all those with intellectual disabilities and support them to achieve as much as possible. One well evidenced way of improving an individual's physical and

psychological well-being is through sport and it is increasingly being recognised that this is a very important habilitative vehicle for people with intellectual disabilities, their families and society (Winnick & Porretta, 2016).

Sports Organisations for People with Intellectual Disabilities

The Special Olympics

The Special Olympics is probably the most well known disability sports organisation, serving 5.5 million people with intellectual disabilities and active in 193 countries. The organisation was founded by Eunice Kennedy Shriver in the 1960s, who started a day camp at her home for 'impoverished' children with 'mental retardation'. Funded through the Kennedy Foundation this grew to have an inaugural games in 1968, with 1,500 athletes attending and also the adoption of the name 'Special Olympics'. In 1971 the US Olympic Committee gave official approval to use the word 'Olympics', and this was followed by official recognition of the organisation by the International Olympic Committee (IOC) in 1977. The use of the title 'Olympic' is closely guarded and the Special Olympics is the only organisation outside of the International Olympic sport movement to be able to use the term 'Olympic' (Brittain, 2016).

The stated mission of the Special Olympics is:

".....to provide year-round sports training and athletic competition in a variety of Olympic-type sports for children and adults with intellectual disabilities, giving them continuing opportunities to develop physical fitness, demonstrate courage, experience joy and participate in a sharing of gifts, skills and friendship with their families, other Special Olympics athletes and the community." <http://www.specialolympics.org/mission.aspx>

Over and above international, regional and national programmes of competitions, involving 32 different sports, the Special Olympics runs a variety of other activities including, 'Healthy Athletes' (health screening), 'Unified Sports' (bringing together disabled and non-disabled athletes), coaching and training for coaches, education, fund-raising and empowerment. Increasingly the organisation has become more involved in humanitarian initiatives and campaigning for social inclusion. As part of

the organisation's 50th birthday celebrations it launched a new initiative 'The Inclusion Revolution', to campaign for the inclusion of people with intellectual disabilities in all walks of life, no matter what their level of disability. The theme of this initiative is to demonstrate that sport can bring inclusion and through inclusion peoples' lives can be changed, both for those with and without intellectual disabilities, and in ways encompassing education, work, governance, culture and social life. Through the medium of telling the story of 'game changing' people, partnerships, events and projects, the Special Olympics is attempting to illustrate in a very personal manner what inclusion means and the wide-ranging beneficial outcomes.

Another very significant programme run by the Special Olympics is 'Inclusive Health'. The aim of this programme is to train health professionals and others to develop inclusive health care systems, disseminate health resources and provide health screenings at Special Olympic events to identify undiagnosed conditions which need treatment. In a recent report the figures reported demonstrate the significant impact of this programme, with between 2016-2018 over 54,100 screenings having taken place, 36,000 subsequent referrals and 115 health professionals trained (Special Olympics, 2019). This report states that over 3.5 million people have improved access to health and aims to reach over 11 million people with intellectual disabilities.

Hence, whilst the Special Olympics' activity is premised on sporting activity its objectives and reach are much broader. As a consequence, there are some fundamental differences between Special Olympics competitions and those of other sports organizations. In the Special Olympics athletes of all ability levels are encouraged to participate, and every athlete is recognized for his/her performance. Competitions are structured so that athletes compete with other athletes of similar ability in equitable divisions¹.

This approach emphasises inclusion and a range of competition performance as opposed to level of impairment and achieving elite performance standards. Events are divided into 'divisions' with guidance that a variation of fifteen percent between high and low scores should form a division, in addition to age and gender. Competitions are run under Special Olympic rules and not those of the Sport's International Federation, allowing greater adaptation for those with greater impairment. To

¹ <http://resources.specialolympics.org/Topics/Sports/Divisioning.aspx>

compete in the Special Olympics athletes need to be over eight years old and have evidence of being diagnosed with intellectual disabilities, usually through evidence, such as doctor's letters or school reports.

VIRTUS (previously INAS)

The only other global sports organisation for all people with intellectual disabilities is VIRTUS: World Intellectual Impairment Sport, which was rebranded from its previous name 'INAS' very recently in October 2019. This organisation started as the Federation for Para-athletes with Intellectual Disabilities (INAS-FMH) and was founded in 1986 in the Netherlands with the aim of promoting high level sports participation for the then named athletes with 'mental handicaps'. Originally it had 14 member nations and in 1989 held its first 'World Games for Athletes with Intellectual Disability' in Sweden. Today it has grown to an organisation involving over 80 nations, reaching over 300,000 athletes and running a Global Games every four years which attracted over 1,000 athletes to the city of Brisbane in 2019.

The mission of VIRTUS is to promote the opportunity for people with intellectual impairments to achieve excellence in sport and access high level competition. VIRTUS is involved in 16 mainstream sports, all run under that Sport's Federation rules. It has strict eligibility criteria requiring a portfolio of evidence of diagnosis, based on the WHO – ICF definition (World Health Organisation, 2001), to be submitted which is then scrutinised by a panel of expert psychologists and psychiatrists. Once eligibility has been evidenced athletes are entered onto a master list and allowed to compete internationally in VIRTUS and International Paralympic Committee (IPC) sanctioned events. VIRTUS holds the status of an International Organisation of Sports for the Disabled (IOSD) recognised by the IPC, and therefore is seen as a part of the 'Paralympic family'. VIRTUS has a formal contract with the IPC to provide the primary eligibility procedures to ensure eligibility to compete in this group in Paralympic competition. This is in contrast to the Special Olympics, which whilst having the name 'Olympics' has no formal relationship with either the Olympics or the Paralympics. Athletes may compete in both VIRTUS and the Special Olympics, and indeed many athletes come into VIRTUS having been talent spotted through Special Olympic competition. Likewise, when VIRTUS athletes retire from

elite competition they may well return to competition in the Special Olympics.

VIRTUS is divided into five geographical regions, who organise national, regional and world competitions. In 2017 it expanded its remit to develop two more classes of competition. This included II2 for those with more significant impairment. Until then all those with intellectual disabilities competing in VIRTUS/INAS competed in one class regardless of their level of impairment, resulting in those with greater levels of impairment, including those with Down Syndrome, rarely coming through to international competition. Echoing the functional approach to classification taken by the IPC, VIRTUS has introduced II2 and is currently working on research to establish an evidence-based approach to underpin this functional classification. Until this system is finalised only those with Down Syndrome can compete in this class as it is known (with the exception of some of those with mosaic Down Syndrome) that this group has higher levels of functional impairment. Once the classification system is finalised all those with additional significant functional impairment will compete in this group. As a result of demand for an international sports organisation to support athletes with autism, a third class, II3, has been introduced for those athletes without intellectual disabilities, but with autism. The introduction of these additional classes reflects the range of disabilities within the umbrella title of intellectual impairments.

The Paralympics

The Paralympics has a very simple vision 'make an inclusive world through Para sport'². The mission of the IPC is 'to lead the Paralympic Movement, oversee the delivery of the Paralympic Games and support members to enable Para athletes to achieve sporting excellence'. As well as providing leadership and delivery of the summer and winter Paralympic Games the IPC acts as the International Federation for ten Para sports, including swimming and athletics. The IPC recognises ten eligible impairments, within three groups, physical, visual and intellectual impairment, and governs a classification system based on levels of functional impairment.

To compete in IPC sanctioned events, first an athlete must be deemed to meet the

² <https://www.paralympic.org/ipc/who-we-are>

primary eligibility criteria for that impairment. As mentioned earlier, for athletes with intellectual disabilities this process is carried out by VIRTUS and then recognised by the IPC. However, an athlete must then go through a second process called classification, the purpose of which is:

'To ensure competition is fair and equal, all Paralympic sports have a classification system in place which ensures that winning is determined by skill, fitness, power, endurance, tactical ability and mental focus, the same factors that account for success in sport for able bodied athletes. The purpose of classification is to minimise the impact of impairments on the competition outcome.' (<http://www.paralympic.org/Classification/Introduction>)

This process is carried out by the sport's International Federation, the IPC themselves for the ten sports governed by the IPC, and for those sports governed separately the process must be approved by the IPC.

The inclusion of athletes with intellectual disabilities in the Paralympic movement has not been straight forward. In 1992 athletes with intellectual disabilities were introduced in the Tignes Paralympic Winter Games. However, in the Barcelona summer Paralympics which followed in the same year a separate, later, event was held for these athletes called the 'Paralympic Games for Persons with Mental Handicap' (Brittain, 2016). The 'inclusion' but separation of the games for people with intellectual disabilities away from the rest of the Paralympic Games caused some debate and was seen as a discriminatory act on behalf of the IPC, used to appease protesting voices, but avoid real inclusion.

As time progressed such obstacles were overcome, at least in principle, and in 1996 a small programme for athletes with intellectual disabilities was included in the Atlanta Paralympic Games. The programme was enlarged for the 2000 Sydney Games, including athletics, swimming, table tennis and basketball. However, the aftermath of these Games saw the intellectual disabilities impairment group excluded from future Paralympic involvement. This resulted from the Spanish basketball team cheating by fielding the majority of players without intellectual disabilities, a member of the team then whistleblowing and an investigation then ensuing. Eligibility at this time was managed by INAS-FMH and their processes were seen to be inadequate

and as a consequence athletes with intellectual disabilities were excluded until more robust systems of eligibility could be demonstrated. The organisation was revised, bringing in new members, structures and governance systems. A much more robust and stringent eligibility process was put in place by 2009.

However, since 2000 governance within the IPC had also moved on and there was now a requirement to have an evidence-based classification system in place. Whilst part of classification is to group people with a similar level of impairment into functionally equivalent groups, a step before this is to demonstrate that the impairment has an impact on the performance of that sport to ensure that it is suitable for Paralympic inclusion. For those with a severe visual impairment playing football, or for an athlete with a leg amputation competing in swimming, this impact is not hard to prove. However, for those with intellectual disabilities showing, if and how, an intellectual impairment impacts on a sport is more complex, and then developing a classification process to demonstrate this is quite a challenge, especially with little existing research. Hence, a joint INAS/IPC research group was established in 2008 and a research programme embarked upon to achieve these IPC classification criteria.

On the basis of these developments, in 2009 at the IPC General Assembly in Kuala Lumpur, the IPC membership voted to re-include athletes with intellectual disabilities in competitions including the London 2012 Games. Between 2009 and 2012 the research behind the classification system was completed and a classification system launched, which enabled 120 athletes to compete in three sports; athletics, swimming and table tennis. This was comparable to the number of athletes who competed previously in Sydney 2000. The classification system comprises a number of parts including a generic sports intelligence battery of mostly computerised tests to measure cognitive skills such as reaction time, and then a set of sports specific tests to measure such factors as pacing ability in athletics, technical skills in table tennis and stroke patterns in swimming. An assessment of training history and in-competition observation make up the final components.

Subsequently, a similar number of athletes competed in Rio and are expected to compete in Tokyo 2020, but as yet, whilst the range of events within the three included sports of athletics, swimming and table tennis has been widened, inclusion remains constricted to these three sports. As a result, it is unlikely that the number

of athletes competing in the summer Games will grow substantially, until other revisions are made. However, it is well known that the summer Paralympics is facing increasing financial pressures, timetable restrictions and lobbying by varied groups all wanting their sports, impairment groups, or classes to be better represented. This provides the IPC with little flexibility to expand the current programme. Nevertheless, that intellectual impairment sport has only one class within the Paralympics, compared to the other impairment groups, remains a distinct inequality. This means that those who compete at Paralympic level are not representative of the vast range of levels of functional impairments routinely seen within athletes with intellectual disabilities. The development of class II2 for those with more significant impairments within VIRTUS, with a classification system built upon IPC principles, is seen as a step towards increasing the pressure on the IPC to widen its inclusion of athletes with intellectual disabilities. However, first VIRTUS needs to be able to demonstrate the viability of more than one class within sports and build a strong level of competition. Within the winter Paralympics Games there is more movement with the likely inclusion of cross-country skiing in the 2026 Games.

It perhaps should also be remembered that Paralympic inclusion, whilst reaping many benefits in terms of exposure to a world stage and the impact on a vast viewing public, only actually includes a very small number of individuals, and can lead to resources being focussed on only the Paralympic sports, resulting in the reduction of funding to other sports and the loss of opportunities for a wider range of athletes with intellectual disabilities. Hence, it is important that whilst the inclusion of these athletes in the Paralympics is supported, so should other sporting initiatives which lead to a wide range of impacts and include larger numbers of athletes.

The impact of sports inclusion for people with intellectual disabilities, their families and society

The athlete with intellectual disabilities

The positive impact on the physical, psychological and social well-being of people engaging in sport is well proven (Biddle, Ciaccioni, Thomas, & Vergeer, 2019) and all of these benefits are equally true for people with intellectual disabilities. However, it should be acknowledged that for people with intellectual disabilities there are some

differences that makes sport especially important for this group. Firstly, they are more vulnerable to physical, psychological and social issues than the rest of the population, and all of these issues have been shown to be improved by engagement in sport and exercise. For example, it is known that people with intellectual disabilities suffer more from conditions secondary to their initial impairments such as obesity, mental health problems, loneliness, economic deprivation, abuse and unemployment (Dunham et al., 2018; Hatton et al., 2018; Robertson, Beyer, Emerson, Baines, & Hatton, 2019). Secondly, as a product of their position in society people with intellectual disabilities are often excluded from accessing this important method of improving their well-being (Iyer et al., 2019). For example, they may not have the confidence, knowledge or financial resources to access sport and exercise opportunities. Due to their impairments they may be actively excluded from programmes, without sufficient adaptations being made or alternative opportunities being provided. This leads to strikingly low levels of fitness in young people with intellectual disabilities, making them even more vulnerable to secondary health problems later in life (Wouters, Evenhuis, & Hilgenkamp, 2019). Hence, it is even more important that sporting opportunities are not just made available, but that people with intellectual disabilities are supported to access them.

The research demonstrating the benefits of such engagement is now substantial and will be reviewed in brief below.

Physical impacts

In a systematic review of Special Olympics participation Tint, Thomson, and Weiss (2017) concluded that sufficient evidence exists to suggest that motor skills, cardiovascular endurance, body fat reduction, and blood pressure can be improved by sport participation. In an evaluation of their own inclusive health programmes the Special Olympics were able to demonstrate positive changes in behavioural patterns such as increased regular exercise, healthier eating, and physical health gains in terms of body weight and blood pressure (Special Olympics, 2019). Similar findings have resulted from studies looking both at projects aimed specifically at demonstrating the potential to include health gains of introducing sport or fitness interventions and also from the evaluation of naturally occurring sporting opportunities. For example, Collins

and Staples (2017) demonstrated increased muscle strength, cardio endurance and aerobic capacity through the introduction of a ten-week fitness programme for children with intellectual disabilities aged 7-12. In a further systematic review of studies aimed at examining the benefits of physical activities for people with intellectual disabilities, including both Special Olympic and generic programmes, Pestana, Barbieri, Vitório, Figueiredo, and Mauerberg-deCastro (2018) concluded that robust evidence exists for improvements in muscle strength, mobility, blood pressure, muscle mass and postural stability amongst other outcomes.

Psychological impacts

In a very recent review and meta-analysis involving 109 studies Kapsal et al. (2019) concluded that not only did physical activity have a large impact on physical health, but also on the psychosocial health of young people with intellectual disabilities. They also made the important point that given the basal rate of fitness and well-being is comparatively low compared to typically developing youth, physical exercise interventions can have larger than expected outcomes in terms of improvement, especially for physical health for young people with intellectual disabilities. Kapsal et al. (2019) also found that greater gains are made when the physical activity is performed in groups, suggesting the added social benefit of activities such as team sports. In terms of the types of psychosocial changes seen, these include improvements in self-concept (Pan & Davis, 2019), self-esteem (Crawford, Burns, & Fernie, 2015), self-control (Choi & Cheung, 2016), psychological well-being and a reduction in problem behaviour, including mental health issues such as anxiety (Pestana et al., 2018). In addition to improvements in psychosocial functioning, sport engagement has demonstrated improvement in cognitive skills. For example, Chen, Tsai, Wang, and Wuang (2015), demonstrated how table tennis training improved children with intellectual disabilities' visual perceptual and executive functioning skills.

Social impacts

Loneliness and limited social networks are common risks for people with intellectual disabilities, which belonging to a sports club or team can ameliorate (Hatton & Emerson, 2015). Crawford et al. (2015) found that those involved in sport had larger social networks and this was particularly true for those involved in Special Olympic sport. Indeed, the Special Olympics has invested heavily in their Unified Sport programme to bring those with and those without disabilities together through sport, and the evaluations of these programmes have demonstrated improved well-being, friendship networks and a sense of belonging (Bowers et al., 2016). In a recent systematic review of this area Scifo et al. (2019) concluded that there is sufficient evidence to recommend that targeted sports intervention programmes should be developed to improve health and increase social inclusion for this population.

The wider benefits of participation in sport are also being recognised in terms of the development of skills from the sporting environment which can then be used to enhance the person's wider context, for example in accessing employment. Such skills include team working, discipline, perseverance, managing failure and psychological resilience. Hence, employment has been a major focus of the Special Olympics' 'Inclusion Revolution' initiative with a specific campaign called 'Delivering Jobs', in collaboration with Autism Speak and Best Buddies (a global non-profit organisation focussed on social inclusion). Together they have made a commitment to create pathways to one million employment and leadership opportunities by 2025³.

Family impact

Families are key to encouraging people with intellectual disabilities to participate in sport and are usually an important factor in helping young people with intellectual disabilities access and maintain sporting activity (McGarty, Downs, Melville, & Harris, 2018; Robertson, Emerson, Baines, & Hatton, 2018). However, involvement in sport

³ <https://www.specialolympics.org/about/press-releases/delivering-jobs-campaign-to-create-pathways-to-one-million-employment-and-leadership-opportunities-by-2025-for-people-with-autism-intellectual-and-or-developmental-differences>

has positive benefits for the family, especially as having children with intellectual disabilities can lead to increased isolation and stress. Engagement in sport has been shown to bring families together and reduce isolation, increase the positive time spent together, increase the expectations they have of their offspring, and recognise their competence and independence (Bowers et al., 2016; Kaur, 2016; Werner, 2015).

Societal impact

Social inclusion through sport is a two-way interaction with outcomes not just for the individual with intellectual disabilities, but also for the people with whom they interact. The impact for society of inclusion through sport is also multi-layered, with at one end of the continuum the potential influence on societal attitudes by the 'myth busting' presentation of elite athletes at the Paralympics achieving performances well beyond the reach of most well motivated non-disabled athletes, to at the other end, the influential inter-personal relationships built up between two team mates playing football in a unified sports programme.

Research has demonstrated that watching athletes with intellectual disabilities compete at the elite level can positively influence social attitudes (Carew, Noor, & Burns, 2019; Ferrara, Burns, & Mills, 2015). High profile, positive media campaigns have been used well by organisations such as the Special Olympics and the IPC to influence public perceptions and combat the negative attitudes which lead to exclusion. High quality, positive interactions which challenge stereotypes are particularly effective (McManus, Feyes, & Saucier, 2011), and sport provides many opportunities, especially at the elite level to provide this type of contact. The Special Olympics has been engaged in monitoring public attitudes for some years and set out specifically to change attitudes, especially by using the impact of unified sports as a way of changing the attitudes of non-disabled players. One study found that engagement in a unified football project improved the understanding of the disabled players by the non-disabled players by as much as 50% (Norins, Harada, & Parker, 2006). Evaluation of the Special Olympic World games has demonstrated improved social perceptions, understanding and willingness to engage with people with intellectual disabilities (Norins, Parker, & Siperstein, 2007).

The belief that increasing positive interactions between two groups, one less valued

than the other, will increase the standing of the undervalued group is based upon Allport's (1954) 'contact' hypothesis, and it is this principle which underpins the endeavour to bring together those with and without intellectual disabilities in positive circumstances. Sport provides this opportunity, in terms of people competing together in unified or integrated sports programmes, volunteers, officials and organisers at events and the general public as the potential spectators. Research shows that this interaction is effective and can not only impact attitudes towards people with intellectual disabilities, but can also positively impact on the person without the impairment. For example, Li and Wu (2019) showed that not only did the attitude of volunteers working with Special Olympics improve, but this interaction impacted to improve the volunteers' own self esteem.

Tokyo and the future

The Tokyo Paralympics will be the next big staged event for Para-athletes with intellectual disabilities. In terms of the inclusion of these athletes in this movement it is an incremental step, in that they are now an established part of the event, they adhere to all the classification, doping and other governance procedures and compete under the same terms as any other athletes. There has been no great expansion between Tokyo and Rio, so in many ways the competition territory is known. However, as with any Games the home culture will impact significantly upon those competing, those attending and those watching from afar. How the Games is delivered and perceived is very dependent on the context and culture of the hosting city. So what will be the experience of those athletes with intellectual disabilities competing at these Games, and their families, coaches and supporters? What will people both with and without intellectual disabilities perceive when watching these athletes compete? What changes should or can be leveraged through this showcase?

An issue that permeates through all these questions is the visibility of the athletes with intellectual disabilities. Unlike many of the athletes competing in the Paralympics their impairment is invisible. Unless already aware that Para-athletes with intellectual disabilities compete in classes S14 (swimming), T20 (athletics track), F20 (athletics field) and TT11 (table tennis), when watching these athletes, at best the audience may assume some mild physical or visual disability or worse may question why these

athletes are competing at all in the Paralympics as they look non-disabled. Hence, the lack of visibility presents a problem of representation. To represent the range of athletes competing at the event to the spectating audience, the athlete's impairment needs to be identified in some way. One way is to explain the classification system, as with the LEXI system⁴ introduced in London 2012, which works well if the audience is prepared to attend to it. Another way is to represent and challenge stereotypes through advance media coverage. Based on the success of the London 2012 coverage, in the UK, Channel 4 produced some engaging and challenging TV trailers for Rio 2016, based on the theme 'We're the Superhumans'⁵. However, to represent elite athletes who clearly had intellectual disabilities remained a challenge, resolved by including athletes with Down Syndrome. Whilst this solved the issue in some way it did not truly solve it as, for the reasons explained earlier in this paper, no athlete with Down Syndrome met the performance standards required to compete at the Rio Paralympics and the sport they were depicted in was boxing, a sport in which Para-athletes with intellectual disabilities do not compete.

Rio 2016 took another approach, again consistent with their culture and the particular political and economic challenges they faced staging the Olympics and Paralympics at that time. A sponsoring partner was a large cinema corporation and in advance of the Games, short 2-3-minute, good quality videos were produced featuring prominent Brazilian Para-athletes. In advance of the Games, before viewing a film one of these videos would be played, much like an advert or preview for a future film. As visiting the cinema is a very popular leisure activity in Brazil a large part of the population became familiar with the personal stories of their Para-athletes and so rather than engaging with the politics of the Games the organisers encouraged spectators to engage with the individual athletes, through knowing their personal story and then having the opportunity to support their performance in competition.

The Paralympics offers the opportunity to change 'invisible' to 'incredible' in terms of media coverage and as a consequence change public attitudes. It also brings into focus very practical issues of inclusion, from obvious ones of physical access for wheel chair users, to those less considered such as accessible information for those with cognitive impairments, and autism 'friendly' environments. Legacy is frequently

⁴ <http://lexi.global/>

⁵ <https://www.youtube.com/watch?v=IocLkk3aYlk>

considered in terms of economic investment, usage of facilities and sporting developments, but it is often these challenges to social inclusion that have the most personal and meaningful impact on those involved. How Tokyo will engage with its Para-athletes with intellectual disabilities is yet to be seen, but it does provide an unmissable opportunity to educate, influence and improve social inclusion for this large sector of society.

References

- Allport, G. W. (1954). *The nature of prejudice* (1st ed.). Cambridge, MA: Perseus Books.
- Biddle, S. J., Ciaccioni, S., Thomas, G., & Vergeer, I. (2019). Physical activity and mental health in children and adolescents: An updated review of reviews and an analysis of causality. *Psychology of Sport and Exercise, 42*, 146-155.
- Bowers, K., Corby, D., Lambert, V., Staines, A., McVeigh, T., McKeon, M., . . . Walsh, D. (2016). People with intellectual disability and their families' perspectives of Special Olympics Ireland: Qualitative findings from the SOPHIE study. *Journal of Intellectual Disabilities, 20* (4), 354-370.
- Brittain, I. (2016). *The Paralympic Games explained*. Routledge.
- Carew, M. T., Noor, M., & Burns, J. (2019). The impact of exposure to media coverage of the 2012 Paralympic Games on mixed physical ability interactions. *Journal of Community & Applied Social Psychology, 29*(2), 104-120.
- Chen, M., Tsai, H., Wang, C., & Wang, Y. (2015). The effectiveness of racket-sport intervention on visual perception and executive functions in children with mild intellectual disabilities and borderline intellectual functioning. *Neuropsychiatric Disease and Treatment, 11*, 2287-97.
- Choi, P. H. N., & Cheung, S. Y. (2016). Effects of an 8-week structured physical activity program on psychosocial behaviors of children with intellectual disabilities. *Adapted Physical Activity Quarterly, 33*(1), 1-14.
- Collins, K., & Staples, K. (2017). The role of physical activity in improving physical fitness in children with intellectual and developmental disabilities. *Research in Developmental Disabilities, 69*, 49-60.
- Crawford, C., Burns, J., & Fernie, B. A. (2015). Psychosocial impact of involvement in the Special Olympics. *Research in Developmental Disabilities, 45*, 93-102.
- Dunham, A., Kinnear, D., Allan, L., Smiley, E., & Cooper, S. (2018). The relationship between physical ill - health and mental ill - health in adults with intellectual disabilities. *Journal of Intellectual Disability Research, 62*(5), 444-453.
- Ferrara, K., Burns, J., & Mills, H. (2015). Public attitudes toward people with intellectual disabilities after viewing Olympic or Paralympic performance. *Adapted Physical Activity Quarterly, 32*(1), 19-33.
- Hatton, C., & Emerson, E. (2015). Introduction: Health disparities, health inequity, and people with intellectual disabilities. *International review of research in developmental disabilities 48*, 1-9. Elsevier.
- Hatton, C., Emerson, E., Robertson, J., & Baines, S. (2018). The mental health of adolescents with and without mild/moderate intellectual disabilities in England: Secondary analysis of a longitudinal cohort study. *Journal of Applied Research in Intellectual Disabilities, 31*(5),

768-777.

- Iyer, P., Shetty, T., Ganesan, S., Nair, S., Rao, N., & Mullerpatan, R. (2019). Exploration of sports participation in children with mild intellectual disability. *Critical Reviews™ in Physical and Rehabilitation Medicine*, 31(1) 85-92.
- Kapsal, N. J., Dicke, T., Morin, A. J., Vasconcellos, D., Mañano, C., Lee, J., & Lonsdale, C. (2019). Effects of physical activity on the physical and psychosocial health of youth with intellectual disabilities: A systematic review and meta-analysis. *Journal of Physical Activity and Health*, 1(aop), 1-9.
- Kaur, H. (2016). A study of mothers of intellectually disabled children participating in Special Olympics. *International Journal of Education and Management Studies*, 6(2), 136.
- Kinnear, D., Morrison, J., Allan, L., Henderson, A., Smiley, E., & Cooper, S. (2018). Prevalence of physical conditions and multimorbidity in a cohort of adults with intellectual disabilities with and without Down Syndrome: Cross-sectional study. *BMJ Open*, 8, e018292. doi:10.1136/bmjopen-2017-018292
- Li, C., & Wu, Y. (2019). Improving Special Olympics volunteers' self-esteem and attitudes towards individuals with intellectual disability. *Journal of Intellectual & Developmental Disability*, 44(1), 35-41.
- McGarty, A. M., Downs, S. J., Melville, C. A., & Harris, L. (2018). A systematic review and meta-analysis of interventions to increase physical activity in children and adolescents with intellectual disabilities. *Journal of Intellectual Disability Research*, 62(4), 312-329.
- McManus, J. L., Feyes, K. J., & Saucier, D. A. (2011). Contact and knowledge as predictors of attitudes toward individuals with intellectual disabilities. *Journal of Social and Personal Relationships*, 28(5), 579-590.
- Norins, J., Harada, C., & Parker, R. (2006). *An evaluation of the Special Olympics Europe/Eurasia Unified Football pilot-project: Findings from Austria, Poland, Romania, Serbia, and Slovakia*. Washington, DC. Retrieved from <http://media.specialolympics.org/resources/research/Special-Olympics-Research-Overview.pdf>
- Norins, J., Parker, R. C., & Siperstein, G. (2007). *Impact of the Special Olympics World Games on the attitudes of youth in China*. (). Washington, DC: Special Olympics, Inc. Retrieved from <https://media.specialolympics.org/resources/research/sports/SO-Research-Overview-Impact-Sports-06-2018.pdf>
- Pan, C., & Davis, R. (2019). Exploring physical self-concept perceptions in athletes with intellectual disabilities: The participation of unified sports experiences. *International Journal of Developmental Disabilities*, 65(4), 293-301.
- Pestana, M. B., Barbieri, F. A., Vitória, R., Figueiredo, G. A., & Mauerberg-deCastro, E. (2018). Effects of physical exercise for adults with intellectual disabilities: A systematic review. *Journal of Physical Education*, 29, e2920.
- Robertson, J., Beyer, S., Emerson, E., Baines, S., & Hatton, C. (2019). The association between employment and the health of people with intellectual disabilities: A systematic review. *Journal of Applied Research in Intellectual Disabilities*, 32(6), 1335-1348.
- Robertson, J., Emerson, E., Baines, S., & Hatton, C. (2018). Self-reported participation in sport/exercise among adolescents and young adults with and without mild to moderate intellectual disability. *Journal of Physical Activity and Health*, 15(4), 247-254.
- Robertson, J., Hatton, C., Emerson, E., & Baines, S. (2015). Mortality in people with intellectual disabilities and epilepsy: A systematic review. *Seizure*, 29, 123-133.

- Scifo, L., Chicau Borrego, C., Monteiro, D., Matosic, D., Feka, K., Bianco, A., & Alesi, M. (2019). Sport intervention programs (SIPs) to improve health and social inclusion in people with intellectual disabilities: A systematic review. *Journal of Functional Morphology and Kinesiology*, 4(3), 57.
- Tint, A., Thomson, K., & Weiss, J. A. (2017). A systematic literature review of the physical and psychosocial correlates of Special Olympics participation among individuals with intellectual disability. *Journal of Intellectual Disability Research*, 61(4), 301-324.
- Werner, S. (2015). Athletes', parents', and siblings' experiences from the Special Olympics World Games. *Journal of Intellectual and Developmental Disability*, 40(2), 167-178.
- Winnick, J., & Porretta, D. L. (2016). *Adapted physical education and sport*. Human Kinetics.
- World Health Organisation (2001). *The international classification of functioning, disability and health (ICF)*. Geneva: WHO.
- Wouters, M., Evenhuis, H. M., & Hilgenkamp, T. I. (2019). Physical fitness of children and adolescents with moderate to severe intellectual disabilities. *Disability and Rehabilitation*, DOI: 10.1080/09638288.2019.1573932

知的障がい者のパラスポーツ参加

ジャン・バーンズ

(英国カンタベリー・キリスト・チャーチ大学)

スポーツを実施することは、健康な生活を構築し維持するために非常に重要な方法であり、これは知的障がい者の場合にはなおさらである。本論文は、知的障がい者が障がい者およびその家族の身体的および心理社会的幸福の双方に影響を及ぼす仕組みや、スポーツを行うことによってこれがどのように改善されるかを示している。また、知的障がい者のスポーツに関与している主要3団体—スペシャルオリンピックス、VIRTUS (旧 INAS) およびパラリンピック—とその機能および関係性についても説明している。資格や分類方法の簡単な歴史や、現在これらの組織においてそれがどのように運営されているかについても説明している。同論文は、身体的健康の悪化、社会的排除、心理的脆弱性の点におけるニーズの高まりを提示し、スポーツがこれらの人々やその家族にもたらしうる実証済みのプラス効果を考察している。これには健康の改善、肥満や心疾患などの二次的健康リスクの低減、友人関係や社会的包摂の向上、自尊心や主観的幸福などの心理的要素の改善などが含まれる。家族の孤立緩和や共同体意識といった、家族に対する影響も考察している。社会的レベルにおいては、知的障がいを伴うアスリートが参加するパラリンピックなどの大規模なスポーツイベントが、観衆の考え方に影響を及ぼす仕組みについて説明されている。最後に、東京2020パラリンピック競技大会が、知的障がい者に対する社会の姿勢を変化させ、彼らの社会的包摂を促進させる可能性についても考察している。