Enhancing performance and sport injury prevention in disability sport: moving forwards in the field of football

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IMPLEMENTATION—CHALLENGING IN ABLE-BODIED SPORT—MORE SO IN DISABILITY SPORT

According to the WHO, approximately 15.6% of the world population live with some form of disability, including 70 million children world-wide aged between 15 and 18 years.[1] The benefits of exercise for individuals living with disability have been highlighted in the literature,[2] and participation in team sports, such as football, provides additional benefits (such as facilitating social inclusion, creating peer group networks and challenging perceived social stereotypes). While prevention of injury is an important issue for all athletes, the impact of a sporting injury to an individual with a disability may severely affect their ability to function independently on a daily basis. For example, an athlete with a lower limb amputation who sustains a major injury such as an ACL and osteochondral injury could suffer long-term health consequences. In addition, gaining access to healthcare services and rehabilitation may be more challenging for individuals with a disability.[3] Given the many health and social benefits of sporting participation in the disabled population and the additional barriers to their involvement,[4] it is essential that measures are taken to help better understand injury prevention[5] and make sport safer for athletes with a disability.

Recent papers on sports injury prevention in *BJSM* have centred on methods for translating research into practice.[6 7] The primary focus of such injury prevention research has been directed towards able-bodied sport,[8] using frameworks based on best-practice knowledge and evidence.[9] Although many generic sports injury prevention paradigms may be applied to disability sport, athletes with a disability often already have pre-existing ranges of complex impairments which pose additional challenges to safe sporting participation. Furthermore, each of these impairment types generate specific considerations which impact on the potential for risk of injury.[10] Injury prevention principles such as correction of muscle imbalance and improving gait are important components in sports injury prevention.[11] However many athletes with disability (eg, athletes with amputations or athletes with cerebral palsy) have long-standing and non-modifiable muscle and gait imbalances, meaning that injury prevention approaches for these athletes would need to be specifically tailored to their level of function. Examples of specific injury prevention programmes for athletes with a disability are uncommon but there have been some reported instances of these innovations in the field of Paralympic sport.[12]

Current strategies and approaches to assist sport injury prevention[9] in mainstream sport have yet to be adapted, validated or made specific to disability football. A non-exhaustive search by three of the authors (RW, OHA and AWH) using traditional sources (Scopus, PubMed) and emerging sources (YouTube, Apple's iTunes store) only retrieved two published epidemiological studies which discussed injury prevention in disability sport.[12 13] Despite van Mechelen *et al*[14] demonstrating that there are numerous smartphone applications (apps) targeted towards injury prevention, none of these apps cater to the athlete with a disability. Paradoxically, injury audit data has demonstrated that visually impaired football contained some of the highest injury rates across all sports that competed during the 2012 Paralympic games.[15]

FA CENTRE FOR DISABILITY FOOTBALL RESEARCH

In light of this finding and the considerations related to injury prevention in disability football, the Football Association in England has recently established the 'FA Centre for Disability Football Research' (FA CDFR). The FA CDFR has been assembled to conduct research within the versions of disability football that are supported by The Football Association including: cerebral palsy, hearing impaired, visually impaired, partially sighted, learning disability and wheelchair football. In keeping with efforts to increase injury surveillance studies in football,[16] The FA Injury and Illness Surveillance Study is collecting epidemiological data on all the Football Association representative squads. This has been tailored by the FA CDFR to include injury and illness data from the disability football squads and will inform future research within the FA CDFR, which will focus on reducing the risk of injury and improving performance. The FA CDFR shares aspirations and commitment to FIFA's 'Football for Health'[17] and 'Football for Hope'.[18] The FA CDFR is looking forward to disseminating its research findings to the international football and disability football communities.

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