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### Response to: ‘Don’t Let Kids Play Football’: A Killer Idea

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#### Introduction

In a recent *BJSM* editorial, it was stated that ‘shutting down youth sports programmes’ is not the answer to injury concerns in contact sport, suggesting there may be unintended consequences, such as increasing sedentary behaviour.<sup>1</sup> With physical inactivity a leading cause of mortality, concerns about decreasing participation in physical activity are justified. This issue has even been discussed in a previous editorial in the *BJSM*.<sup>2</sup> There is no evidence, however, to suggest that collision sports (specifically) are necessary to combat sedentary lifestyles of youth. There also continues to be a distinct misunderstanding of what has been called for in regards to the banning of tackling in school rugby, which will now be clarified.

#### Removing the Tackle in School Rugby

In March 2016, the Sport Collision Injury Collective called on the British Government to take action to remove the tackle from rugby in the school environment only. Four main reasons for removing the tackle from school rugby were cited. First, rugby is the main high-impact collision sport in the physical education curriculum in England. Second, many secondary schools choose to make rugby a compulsory part of the physical education curriculum. Third, the tackle has been identified as the most injury prevalent part of the game. Finally, head injuries can lead to long-term physical, mental and social issues.

Additionally, research has identified a lack of sport-specific training of teaching staff, a lack of engagement with concussion initiatives, as well as a lack of informed consent opportunities for parents and children.<sup>3,4</sup> This call, however, is not arguing for the banning of sports, or for children to become sedentary, nor is it targeting the structure or organisation of community rugby, where parents and children opt voluntarily to participate. Rather, the focus is on the protection of children from unnecessary risk associated with the rugby tackle in school sport.

#### Concussion Incidence and Management

Although medical advances and better aftercare have been introduced in many sports—with rugby often at the forefront of such developments—concussion is still commonplace.<sup>2</sup> Unlike in the elite adult game, there is also still likely to be under-reporting of concussion ‘through a lack of player awareness and/or unwillingness of players to report symptoms to club staff’ in the community adult game.<sup>5</sup> Equivalent surveillance projects do not exist in school or child club rugby settings either.

While technology may have an important role to play in the prevention of head trauma, the majority of concussion initiatives (e.g., HEADCASE) focus on the management of injured players (i.e., secondary prevention), as opposed to preventing participants from becoming injured in the first

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place (i.e., primary prevention). In contrast, removing the tackle from rugby in schools will most likely reduce the incidence of concussion, while simultaneously promoting physical activity. There is no research that says that the benefits cited for participation in contact rugby (e.g., improved self-esteem and decreased risk of obesity)<sup>1</sup> will not be afforded from tag or touch rugby, or indeed alternative forms of sport or physical activity either.

Other sports with risk of concussion have also taken primary prevention measures to reduce the risk of head trauma. For example, the USA Club Soccer Organisation has banned heading for those under 11 years and provides coaches with information on the maximum amount of heading up to the age of 14 years.<sup>6</sup> Similarly, Hockey Canada has banned body checking in PeeWee hockey (under 13 years) due to the injury risk (e.g., concussion) associated with this phase of play.<sup>7</sup> Within schools in the UK, sports such as swimming require teachers to hold qualifications in order to teach potentially high-risk skills safely. As of yet, however, the governing bodies of rugby in the UK do not stipulate the level of qualification required to teach the tackle safely.

## Conclusion

The science on brain injuries is expanding rapidly, with a huge number of sport and medical professionals studying and publishing on the matter. Many agree that not enough is known about brain injuries, yet increasingly the long-term consequences of such injuries are evident.<sup>8,9</sup> Research also needs to examine repetitive head trauma as opposed to concussion diagnosis alone. The discussed call to remove the tackle from school rugby is not intended to stifle research on brain injuries. Instead, participation in tag or touch rugby acts in accordance with the cautionary approach when it relates to the risk of injuries for children.

## References

- 1 MacDonald J, Myer GD. ‘Don't let kids play football’: A killer idea. *Br J Sports Med* 2016;bjsports-2016-096833.
- 2 Batten J, White AJ, Anderson E, et al. From management to prevention: The new cure for sports concussion. *Br J Sports Med* 2016:1293–4.
- 3 Carter M. The unknown risks of youth rugby. *BMJ* 2015;350:h26.
- 4 Oxfordshire Rugby Football Schools Union. Training Audit. 2015. <http://www.oxonrugbyschools.co.uk/governance.php>.
- 5 Roberts SP, Trewartha G, England M, et al. Concussions and head injuries in English community Rugby Union match play. *Am J Sports Med* 2017;45:2.
- 6 USA Club Soccer. Recognise to recover. 2016. <http://usclubsoccer.org/2016/03/14/implementation-guidelines-for-u-s-soccers-player-safety-campaign-concussion-initiatives-heading-for-youth-players/> (accessed 5 Dec 2016).
- 7 SportMedBC. Hockey Canada Announces Ban on Body- Checking in PeeWee hockey. 2016. <https://sportmedbc.com/news/hockey-canada-announces-ban-body-checking-peewee-hockey> (accessed 5 Dec 2016).
- 8 Sariaslan A, Sharp DJ, D'Onofrio BM, et al. Long-term outcomes associated with traumatic brain injury in childhood and adolescence: a nationwide Swedish cohort study of a wide range of medical and social outcomes. *PLoS Med* 2016;13:102–103.
- 9 Li Ya, Li Yo, Li X, et al. Head injury as a risk factor for dementia and Alzheimer's Disease: A systematic review and meta-analysis of 32 observational studies. *PLoS One* 2017;12:e0169650.