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Brief Summary of evidence linking Physical activity and school sport to academic attainment and wellbeing

26 April 2019

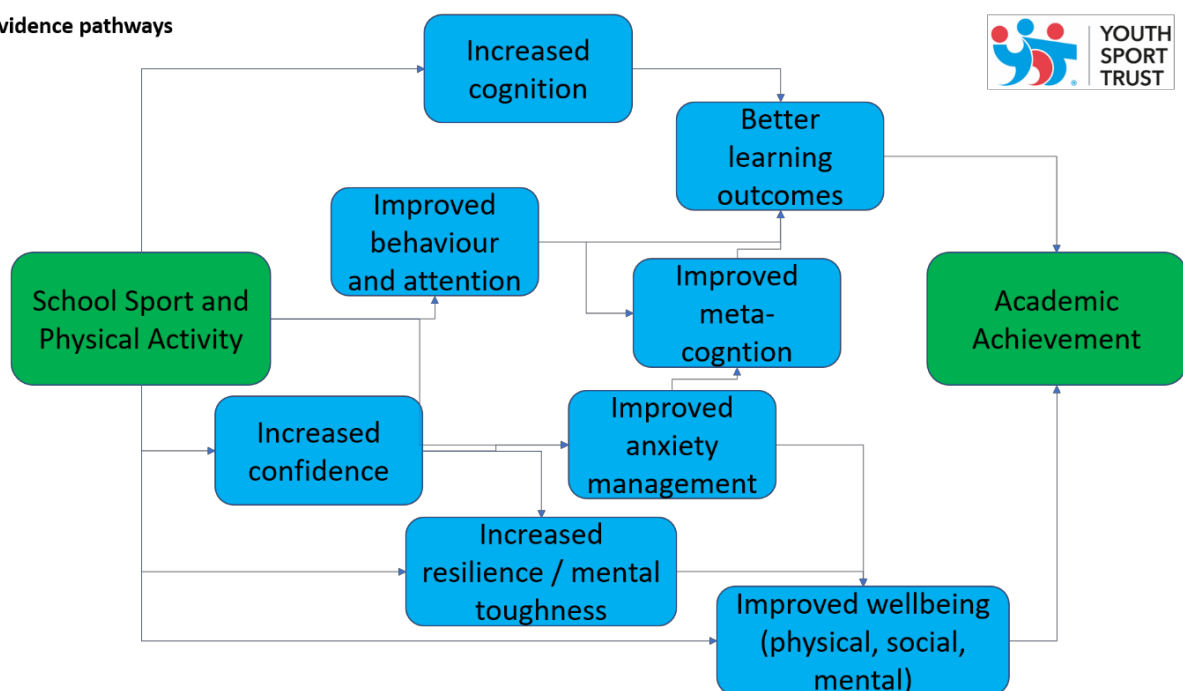
YST RESEARCH

Brief Summary of evidence linking Physical activity and school sport to academic attainment and wellbeing

Following the publication of Professor Peter Clough's study into the effect of school sport on academic achievement, mental toughness and wellbeing (see link [here](#)), and the follow-on the article in the Telegraph Education on Thursday 25 April (see link [here](#)), YST has pulled together some of the key links from our Research and Insight Hub, to illustrate what the evidence tells us.

We welcome the interest in this research and believe there is an evidence pathway linking children's participation in physical activity and school sport with academic achievement and wellbeing (see diagram below). We are currently collaborating with Professor Clough to extend the study he conducted with HMC into state schools to assess the relationship between sport, wellbeing and achievement further.

Evidence pathways



School Sport and Physical Activity and the link with cognition:

There is a large body of evidence to show the wide range of benefits resulting from physical activity, (for example Mualem *et al.*, 2018).

Alongside the more obvious physical benefits (such as healthy bodies and physical fitness, better coordination and movement control and helping to maintain a healthy body weight), there are proven links between physical activity and better cognitive health, with improved learning outcomes.

A wide-ranging [literature review](#) commissioned by the YST carried out by Loughborough University (Stead & Nevill, 2010), found that there are a range of studies to show that a physically active lifestyle during childhood is positively associated with brain and cognitive health (e.g. Sibley and Etnier, 2003; and Tomporowski, 2003b), suggesting that it can help children and young people be more ready to learn.

There are several hypotheses about why exercise is beneficial for cognition: increased blood and oxygen flow to the brain, increased levels of endorphins which result in a reduction of stress and an improvement of mood; and increased growth factors that help to create new nerve cells and support the 'plasticity' of the brain. (See also - [Professor of Psychiatry at Harvard Medical School](#)).

Furthermore, it identified studies which suggested physical education, physical activity and sport may enhance classroom behaviour contributing to the enhanced academic achievement of pupils (Mahar et al., 2006); and that physical education, physical activity and sport have the potential to impact on school attendance (Long et al., 2002) which in turn could impact on academic achievement.

Attainment:

There is delivery-based evidence to suggest links between physical activity, PE and sport and improved attainment, as between 2007 and 2010, the proportion of students achieving 5 A*- Cs at specialist sports colleges **improved by 8%**, compared to the national average of just 4% (Mongon et al. 2011). However, more recent studies such as Professor Clough's, and the general summary of the systematic review of Donnelly *et al.* (2016), found that most often studies were finding neutral links when looking directly for causation between sport and academic attainment.

Studies from other countries provide evidence that children and young people who are aerobically fit have higher academic scores (Chomitz et al. 2009). Physical activity was also shown to have a wider positive impact on anxiety, depression, mood and wellbeing, all of which may impact on academic achievement².

Attendance and behaviour

Again, there are a range of studies showing a positive relationship between both participation in sports programmes and school attendance, and between physical fitness and school attendance. The systematic review by Singh et al (2012) showed regular participation in sport activities may improve children's behaviour in the classroom, enhancing their concentration during lessons.

Wellbeing:

However, there is a wealth of evidence that shows there are positive significant benefits between physical activity / school sport and young people's wellbeing – as shown in Professor Clough's study, and others (Parfitt *et al.* 2009). Physical activity is associated with lower levels of anxiety and depression with children being happier with their appearance, and reporting higher levels of self-esteem, happiness and satisfaction with their lives, (e.g. Holder, Coleman and Sehn, 2009).

Key messages from Public Health England's 2014 report entitled 'The link between pupil health and wellbeing and attainment' were:

- Pupils with better health and wellbeing are likely to achieve better academically.
- Effective social and emotional competencies are associated with greater health and wellbeing, and better achievement.
- The culture, ethos and environment of a school influences the health and wellbeing of pupils and their readiness to learn.
- A positive association exists between academic attainment and physical activity levels of pupils.

Wider life skills

We also know that PE, physical activity and sport have been shown to impact positively on the extent to which young people feel connected to their school; the aspirations of young people; the extent to which positive social behaviours exist within school; and the development of leadership and citizenship skills (Stead & Nevill, 2010).

PE and sport provide additional benefits to those children and young people who thrive less well in a traditional academic environment. When used effectively, PE, physical activity and sport offer an alternative vehicle for teaching key life skills such as communication, listening, team work, planning and problem solving.

PE and sport also help to build confidence and self-esteem, personal resilience and a more positive attitude both to trying new things and being part of the school community. While academic attainment is important, the importance of these wider life skills have been repeatedly identified by employers as a key part of being 'work ready' - 61% of businesses are not satisfied with resilience / self-management skills of young people while 31% report poor team working skills (Confederation of British Industry, 2015)

Robust evidence from YST delivery programmes

The YST has a range of evidence, direct from young people and schools collected during our delivery programmes, which shows the benefit of sport, PE and physical activity on overall wellbeing and life skills, as well attainment and engagement.

Sky Sports Living for Sport Programme:

- helped over 500,000 young people improve their confidence, life skills, behaviours and attainment through sports activities and role models.
- Two thirds of the young people said it had a positive impact on their education and employment goals, while over 90% of teachers reported that it improved students' confidence, self-esteem and teamwork skills.
- Teachers also reported the following improvements demonstrated by the students:
 - 71% improved attendance at school
 - 72% improved attainment
 - 78% improved behaviour
 - 83% improved engagement in learning
 - 85% improved engagement in school life.

My Personal Best:

- helps teachers ensure all young people develop a broad range of character traits/behaviours – including resilience, confidence and drive – by embedding character development into the secondary PE curriculum
- teachers reported an improvement in students' resilience and responsibility along with an improvement in engagement and behaviour in PE lessons as well as a good understanding of how PE can help them to develop their life skills.

Play Unified

- a programme to tackle social isolation, rejection and bullying of students with an intellectual (learning) disability (ID) by using sport as a catalyst for social inclusion and behavioural change
- 87% of young people, both with and without ID, felt more positive about their own abilities since being involved with the programme.

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Links

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YST RESEARCH

The Youth Sport Trust (YST) is a national children's charity passionate about creating a future where every child enjoys the life-changing benefits that come from play and sport. YST Research offers research, analysis, insight and evaluation services to organisations with an interest in the wider children and young people's sector. Our research expertise is focussed on improving the wellbeing of children and young people through sport and physical activity.

Our specialisms include:

- Education, PE and school sport
- Community sport / clubs
- Early years settings
- Life skills and employability
- Activism and volunteering
- Health (physical, social and emotional)

For our latest research findings, visit <http://www.youthsporttrust.org/research-and-insight-hub>

By working with us, you are supporting us to achieve our mission to improve children's lives and their future.

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