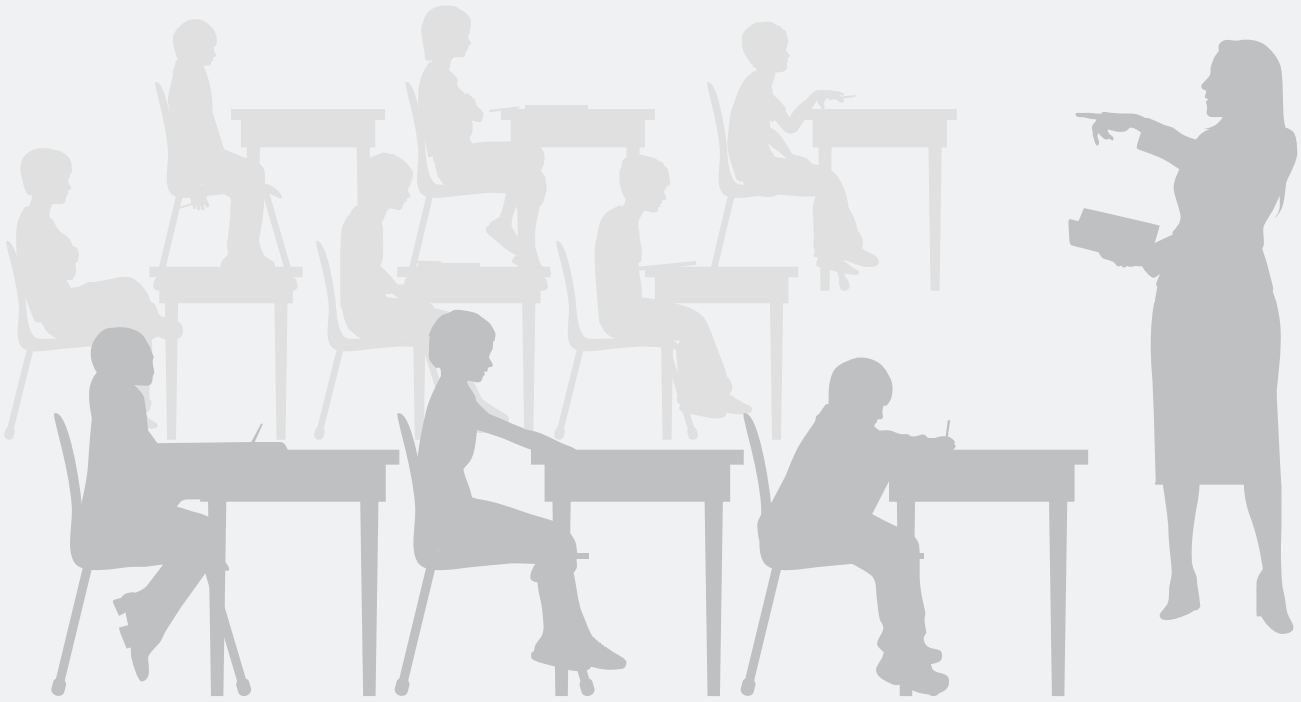
Public Health England

Protecting and improving the nation's health

The link between pupil health and wellbeing and attainment

A briefing for head teachers, governors and staff in education settings



NAHT
FOR LEADERS, FOR LEARNERS

November 2014

About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. It does this through world-class science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. PHE is an operationally autonomous executive agency of the Department of Health.

Public Health England
Wellington House
133-155 Waterloo Road
London SE1 8UG
Tel: 020 7654 8000
www.gov.uk/phe
Twitter: @PHEuk
Facebook: www.facebook.com/PublicHealthEngland

This briefing was written for PHE by Professor Fiona Brooks, head of adolescent and child health research, University of Hertfordshire, UK.

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The link between pupil health and wellbeing and attainment

Key messages

Research evidence shows that education and health are closely linked.[1,2] So promoting the health and wellbeing of pupils and students within schools and colleges has the potential to improve their educational outcomes *and* their health and wellbeing outcomes.

This briefing draws on a rapid review approach that provides a broad, succinct scope of the scientific evidence. The complexity of the interrelationships between outcomes makes it difficult to draw firm conclusions about causality. However, this briefing offers head teachers, governors and school staff a summary of the key evidence that highlights the link between health and wellbeing and educational attainment. It underlines the value for schools of promoting health and wellbeing as an integral part of a school effectiveness strategy, and highlights the important contribution of a whole-school approach.

Key points from the evidence

1. Pupils with better health and wellbeing are likely to achieve better academically.

2. Effective social and emotional competencies are associated with greater health and wellbeing, and better achievement.

3. The culture, ethos and environment of a school influences the health and wellbeing of pupils and their readiness to learn.

4. A positive association exists between academic attainment and physical activity levels of pupils.

Introduction

Maintained schools have statutory duties to promote children and young people's wellbeing[3] and statutory responsibilities to provide a curriculum that is broadly based, balanced and meets the needs of all pupils. Under section 78 of the Education Act 2002 and the Academies Act 2010 such a curriculum must:

"promote the spiritual, moral, cultural, mental and physical development of pupils at the school and of society, and prepare pupils at the school for the opportunities, responsibilities and experiences of later life."[4,5]

Children's wellbeing is influenced by a range of factors and includes their subjective feelings as well as social, physical and psychological aspects of their lives.[6] Consequently schools are key places for shaping general wellbeing. The health and wellbeing of children and young people contributes to their ability to benefit from good quality teaching and to achieve their full academic potential.[7] A report on our children's health by the chief medical officer of England highlighted that:

"promoting physical and mental health in schools creates a virtuous circle reinforcing children's attainment and achievement that in turn improves their wellbeing, enabling children to thrive and achieve their full potential."[8]

Academic success has a strong positive impact on children's subjective sense of how good they feel their lives are (life satisfaction) and is linked to higher levels of wellbeing in adulthood.[9] In turn children's overall level of wellbeing impacts on their behaviour and engagement in school and their ability to acquire academic competence in the first place.[30]

"The health and wellbeing of children and young people contributes to their ability to benefit from good quality teaching and to achieve their full academic potential

Key evidence

- successfully attaining GCSEs (five or more A*-C) is strongly associated with higher levels of life satisfaction among young people[10]
- a UK study published by the Department for Education (DfE)[7] found that pupil wellbeing predicted their later academic progression and engagement in school. For example, pupils with better emotional wellbeing at age seven had a value-added key stage 2 score 2.46 points higher (equivalent to more than one term's progress) than pupils with poorer emotional wellbeing
- DfE research also found that pupils with better attention skills also make more progress across the four key stages. For example, pupils with no attention problems at age 13 had a total value-added GCSE score that was equivalent to more than one extra GCSE at grade A* (63.38 points higher)[7]
- a systematic review of coordinated school health programmes (that promote health through explicit teaching in the curriculum and broader work to promote a healthier school environment) suggests positive effects on attainment[11]

Learning social and emotional skills can have a positive impact on pupil attainment

Emotions can support or impede pupils' learning, their academic engagement, work ethic, commitment, and ultimate school success.[12,13]

A number of specific social and emotional competencies have positive effects on academic achievement:

- pupils who are confident about their learning and who have a 'growth mindset'[14] (they believe their most basic abilities can be developed through dedication and hard work) persist when faced with challenges[15]
- pupils who can set goals, manage stress and organise their school work achieve higher grades[16]
- pupils who use problem-solving skills to overcome obstacles do better academically[17]

Social and emotional competencies have been found to be a more significant determinant of academic attainment than IQ.[16]

One study of curriculum-based emotional resilience programmes found short-term improvements in pupil attendance and attainment rates, particularly among those eligible for free school meals and pupils performing below the national average in maths and English.[18]

School-based programmes of social and emotional learning therefore have the potential to help young people acquire the skills they need to make good academic progress. They also produce benefits to pupils' health and wellbeing, offering a significant return for the resource and time investment by schools to establish such programmes.[19]

Ofsted has identified a strong correlation between schools that achieved a high grade for personal, social, health and economic education (PSHE) and those that were graded outstanding for overall effectiveness.[20]

Key evidence

- an 11% boost in results in standardised achievement tests has been linked to school programmes that directly improve pupils' social and emotional learning[12]
- whole-school approaches to social and emotional learning, universally implemented for all pupils, strongly correlate with higher attainment[19]

> "School-based programmes of social and emotional learning have the potential to enable young people to acquire the skills they need to make good academic progress

School culture, ethos and environment affects wellbeing and attainment

The physical and social environment in which staff and pupils spend a high proportion of every weekday may have profound effects on their physical, emotional and mental health as well as affecting their attainment.

Positive relationships between teachers and pupils, and between pupils, are critical in promoting pupil wellbeing and encouraging them to avoid risky behaviour. Having a sense of belonging to school and having good teacher-pupil relationships contribute to pupils liking school.[21] The level of school engagement pupils feel with their schools is strongly associated with their attainment.[22]

> “School belonging is higher in schools where children feel safe and have lower levels of bullying, and these are more likely to be high-achieving schools

Pupils' social relationships and interactions with each other are also significant predictors of academic performance.[23] Disruptive classroom behaviour directly influences pupil attainment. Bullying at school is one of the strongest predictors of wellbeing. Being bullied during the later years of primary school has a strong association with lower attainment in secondary school.[24] School belonging is higher in schools where children feel safe and have lower levels of bullying, and these have been found to be more likely to be high-achieving schools.[25]

The organisational features of some schools may actively undermine such relationships, for example, via limited involvement of students in decision-making, which may result in some students feeling they do not have a 'stake' in their school community.[26]

Key evidence

- pupils who reported they enjoyed school at age 11 had better attainment at key stage 3, especially for maths[27]
- pupils who hold positive attitudes about their school at age 14 have higher academic attainment by age 16[28]
- a UK study found that school engagement at age 13 predicted greater academic progression from key stage 3 to key stage 4, highlighting the importance of sustaining school motivation for academic attainment during secondary school[7]
- pupils who have been bullied have lower key stage 1 SAT results and are more likely to have friends who are involved in antisocial activities[29]
- pupils who are bullied at age 14 have significantly lower GCSE scores at age 16[24]

Positive health behaviour and attainment

Children and young people who are aerobically fit have higher academic scores.[30,31] The intensity and duration of exercise are both linked to improved academic performance, including GCSE results at age 15 and notably girls results in science.[32]

> “Physical activity has been linked to improved classroom behaviour across the whole school

Physical activity has been linked to improved classroom behaviour across the whole school.[33] Notable among the benefits are improved pro-social behaviour and peer relationships, with resulting reductions in disruptive classroom behaviour.[34,35]

Participation in extra-curricular activities also has a positive effect on attainment.[36]

Three studies show promising associations between diet and academic attainment. However, it is difficult to attribute a causal link between diet and attainment because of the range of other factors in the school environment that also affect academic attainment.[37]

There is evidence that eating breakfast, compared to skipping it, has a positive influence on short-term cognition and memory but these effects may depend on the type of assessment. Breakfast clubs will help some groups of children have a breakfast they may otherwise not have had, and as part of a whole-school approach this may have wider effects on attendance and readiness to learn.[38]

Key evidence

- a UK study identified that the amount of moderate to vigorous physical activity pupils engaged with at age 11 had an effect on academic performance across English, maths and science at age 11, 13 and final GCSE exam results[32]
- the percentage of time girls spent in moderate to vigorous physical activity at age 11 predicted increased science scores at 11 and 16 years[32]
- pupils engaging in self-development activities (including sport, physical activity) achieved 10-20% higher GCSEs[36]
- a whole-school approach to healthy school meals, universally implemented for all pupils, has shown improvements in academic attainment at key stages 1 and 2, especially for pupils with lower prior attainment[39]

Links with the Ofsted inspection framework

Adopting strategies and practices that seek to improve pupil health and wellbeing offers important benefits for whole-school effectiveness as well as for pupils. The table below summarises how the evidence presented in this briefing fits with the key judgement areas of the Ofsted inspection framework.

Ofsted inspection framework: key judgements	Links with pupil health and wellbeing
1. Achievement of pupils	• an 11% boost in results in standardised achievement tests has been linked to school programmes that directly improve students' social and emotional learning[12] • higher attaining schools have greater levels of participation in physical activity and sports programmes than lower performing schools[36]
2. Quality of teaching	• systematic structured teaching of social and emotional life-skills and values throughout school life has the potential to increase emotional wellbeing and academic achievement[12]
3. Quality of leadership in, and management of, the school	• Ofsted reported a close correlation between the grade that schools "were awarded for overall effectiveness in their last section 5 inspection and their grade for PSHE education"[20] • the quality and nature of relationships – spanning pupil-to-pupil and pupil-to-teacher relationships are key to engendering a sense of belonging and pupils liking school, which influences student wellbeing and readiness to learn[22,23]
4. Behaviour and safety of pupils at the school	• pupils' sense of belonging to school is a key determinant of their wellbeing and is higher in schools where children feel safe and have lower levels of bullying. These are also more likely to be high-achieving schools[21]

A school's commitment to pupil wellbeing, including a commitment to measuring their wellbeing, can be an important way of informing parents and local communities about how successful the school is. This has the potential to make a strong contribution to how schools are viewed by their local communities[40] and by Ofsted as part of the inspection process.

The whole-school approach

This briefing underlines the value for schools of promoting health and wellbeing as an integral part of a school effectiveness strategy.

Robust evidence shows that interventions taking a 'whole school approach'[41] have a positive impact in relation to outcomes including: body mass index (BMI), physical activity, physical fitness, fruit and vegetable intake, tobacco use, and being bullied. Whole-school approaches have been associated with improvements in children's diets and their food choices.[42]

> "Interventions that take a whole school approach have a positive impact on outcomes including: BMI, physical activity, physical fitness, fruit and vegetable intake, tobacco use, and being bullied

A whole school approach is one that goes beyond the learning and teaching in the classroom to pervade all aspects of the life of a school including:

- culture, ethos and environment: the health and wellbeing of students and staff is promoted through the 'hidden' or 'informal' curriculum, including leadership practice, the school's values and attitudes, together with the social and physical environment
- learning and teaching: using the curriculum to develop pupils' knowledge, attitudes and skills about health and wellbeing
- partnerships with families and the community: proactive engagement with families, outside agencies, and the wider community to promote consistent support for children and young people's health and wellbeing

'Healthy schools' or 'health-promoting schools' approaches are used by some schools to help translate the whole-school approach into practice and to enhance health and educational outcomes of their pupils.[43,44]

The National Institute for Health and Care Excellence (NICE)[45] has produced guidance documents about improving children and young people's health and wellbeing, and a number of these include recommendations for schools (see resources on page 11).

Resources

The following resources provide a useful starting point for schools. PHE is developing briefings for schools focussed more on implications for practice. These will point to more specific thematic resources and sources of support.

Data

www.chimat.org.uk/profiles – the Child and Maternal (ChiMat) Health Intelligence Network presents key public health indicators relating to children and young people by top-tier local authority, alongside a comparison with England average figures. A school-age profile is being developed as part of this series and will provide useful contextual information for helping education settings prioritise action.

www.localhealth.org.uk provides access to interactive maps and reports at a small area level (middle super output area level) as well as local authority level.

www.hbsc.org, 'Health behaviour of school age children' study is an international cross-sectional study that takes place in 43 countries and is concerned with the determinants of young people's health and wellbeing. The study was initiated in 1982 and represents the longest running international study that focuses on the health behaviour and social context of young people. It is conducted on a four-year cycle. In England the last wave of data collection took place in 2009-10, when 4,404 young people aged 11, 13, and 15 participated. Fieldwork for the 2013-14 cycle has been recently completed.

www.whataboutyouth.com/teacher-pack.aspx – 'What about YOUth?' is a new study commissioned by the Department of Health that aims to make improvements to the health of young people across England. As part of the study, thousands of 15-year olds are being invited to answer questions about important subjects such as their health, diet, exercise, bullying, alcohol, drugs and smoking. A teacher pack is available to help promote the survey to year 11 pupils in registration, assemblies or via PSHE lessons.

Evidence

NICE pathways and guidelines for schools and other educational settings – see www.nice.org.uk/guidancemenu/settings-and-environment#/guidance/settings-and-environment/schools-and-other-educational-settings

Education Endowment Foundation (EEF) provides guidance for teachers and schools on promising educational innovations that address the needs of disadvantaged children in primary and secondary schools in England. The trust makes available a live teaching and learning toolkit – educationendowmentfoundation.org.uk/toolkit/about-the-toolkit/ – which summarises research interventions in terms of their average impact on attainment, the strength of the evidence supporting them, and their cost.

PSHE Association (2014). PSHE Association evidence briefing: academic achievement and employability – www.pshe-association.org.uk/content.aspx?CategoryID=1191&ArticleID=1137

Reports, policy guidance, fact sheets

Chief Medical Officer (2013). Prevention pays: Our children deserve better. London: Department of Health chapter 7 lifestage: school years – www.gov.uk/government/uploads/system/uploads/attachment_data/file/252657/33571_2901304_CMO_Chapter_7.pdf

DfE Guidance (June 2014) on Mental health and behaviour in schools – www.gov.uk/government/uploads/system/uploads/attachment_data/file/326551/Mental_Health_and_Behaviour_-_Information_and_Tools_for_Schools_final_website__2__25-06-14.pdf

School nurse fact sheet for head teachers and governors – media.dh.gov.uk/network/387/files/2012/11/Head-Teacher-Fact-Sheet.pdf

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