



ENGAGING LESS-ACTIVE GIRLS AGED 8-10 IN PHYSICAL ACTIVITY

ACTION RESEARCH REPORT



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OVERVIEW

Public Health England commissioned the Youth Sport Trust and Loughborough University to conduct action research, informed by the findings of a literature review, which considered what works to increase physical activity and decrease sedentary behaviour in girls aged 8-10 years. The research builds on the findings of **'The Tipping Point'**¹ report as well as the principles set out in **'what works in schools and colleges to increase physical activity'**².

This report outlines the action research methodology and highlights the key findings from the literature review. It provides suggestions for schools to consider when seeking to engage less-active 8-10 year old girls in physical activity. It is complemented by a practical toolkit for school leaders, teachers and support staff, which aims to translate the key findings into practice.

Although the project specifically set out to trial methods for engaging less-active girls, many of the suggestions can be applied more widely, to both girls and boys.

WHAT IS DAILY PHYSICAL ACTIVITY?

The UK Chief Medical Officer's **guidelines** recommend that all children and young people (aged 5-18) should:

- engage in moderate to vigorous intensity physical activity for at least 60 minutes and up to several hours every day
- incorporate vigorous intensity activity, including those that strengthen muscle and bone, on at least three days a week
- minimise the amount of time spent being sedentary (sitting) for extended periods.

See Appendix 1 for an infographic summarising the physical activity guidelines.

The **Childhood Obesity Plan 2016**³ states that every primary school child should take part in at least 60 minutes of moderate to vigorous physical activity a day, with an aspiration that at least 30 minutes of this activity is delivered within the school day and the remaining 30 minutes delivered outside of school time, supported by parents and carers.

WHY DO WE NEED TO TARGET GIRLS AGED 8-10?

National data shows that physical activity levels start to decrease in children as young as 7 years of age. This also marks the 'tipping point' for confidence and attitudes in girls¹. Typically, boys report higher levels of physical activity than girls, and there is a trend for a steeper average decline in physical activity for girls compared to boys. Given the impact that habits established during childhood have throughout the life course, increasing children's physical activity levels, especially amongst the least active, has the potential to reap both immediate and longer-lasting benefits.

In England, girls aged between 8-10 years are less likely to meet physical activity guidelines and spend more time in sedentary behaviour than boys of the same age.

There has been a decrease in the percentage of girls aged 8-10 years meeting the current **physical activity guidelines** (decreased from 22% in 2008 to 16% in 2012)³.

OVERVIEW OF METHODOLOGY

The action research methodology included a literature review, study evaluation, teacher planning and school-based interventions.

LITERATURE REVIEW

The literature review focused on review-level evidence and original research papers. The search criteria included: physical activity, sedentary behaviour, children, youth, girls, correlates, intervention, school and evaluation. Its main focus was girls aged 8-10 years old; however, this was extended to girls aged 5-18 years when no other review evidence on the 8-10 age range or children aged 5-11 years was available. It examined quantitative and qualitative research studies and only research published in the last five years.

Infographic 1 (opposite) highlights the main findings of the literature review.



Changes to whole-school physical activity policy has a greater impact on encouraging pre-adolescent girls to be more physically active and less sedentary, especially if supporting changes to the structure, content or environment of delivery of physical activity for less-active girls."



Teacher professional learning to improve lesson preparation and management has potential long-term benefits for teachers and students when engaging less-active girls."⁵



Schools should consider educating less-active girls as to the benefits of physical activity to promote behaviour change. Positive attitudes towards physical activity and intentions to participate is a step change towards actual participation."⁶

INFOGRAPHIC 1: HOW TO INCREASE PHYSICAL ACTIVITY AND DECREASE SEDENTARY BEHAVIOUR IN GIRLS

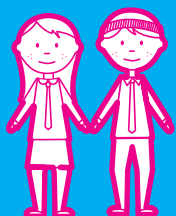
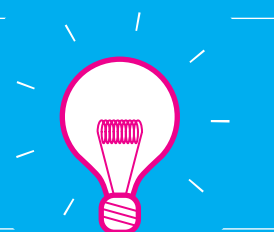


RATIONALE

- Regular physical activity (PA) and minimisation of sedentary behaviour (SB) are good for health
- SB is defined as any waking activity characterised by a low energy expenditure whilst in a sitting or reclining position
- PA contributes to cardio-metabolic health, muscular strength, bone health, cardio-respiratory fitness and psychological well-being in youth
- 84% of British girls do not meet the physical activity guidelines (HSE, 2012)
- PA decreases from childhood to adolescence, and this begins both at an earlier age and to a greater extent in females
- These behaviours are likely to track into adulthood

PURPOSE OF THE REVIEW

- Summarise the review-level of evidence on the components and strategies of effective school-based PA/SB interventions in children.
- Identify correlations and determinants of PA and SB in girls.

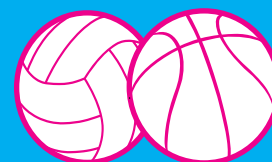


RECOMMENDATIONS

- Target PA and SB together.
- Educate pupils about the benefits of PA and negative effects of SB.
- PE teachers should incorporate high intensity activity into lessons and allow opportunities for girls to demonstrate peer leadership.
- Consider the use of psychological strategies such as goal-setting.
- Offer girls-only programmes.
- Involve friends and family.
- Specific intervention periods should last no more than 12 weeks before a different physical activity intervention is introduced to reduce the loss of excitement.
- Pupils should be involved when choosing a programme.
- Create more facilities, space and opportunities for PA.
- Led by a trained/educated programme deliverer.

MORE LIKELY TO BE PHYSICALLY ACTIVE IF

- Previously physically active and have a healthy diet
- Receive strong parental support and parents are active
- Encouraged by friends and/or friends are active
- Live in a safe community
- School policy has a focus on increasing PA
- Access to local facilities



MORE LIKELY TO BE SEDENTARY IF

- Older
- Display depressive symptoms
- A TV is in the bedroom
- High number of screens in the home

SCHOOL-BASED INTERVENTIONS AND EVALUATION

SCHOOL-BASED INTERVENTIONS

The findings of the literature review informed the content of an eight-week girls-only intervention that was delivered in seven schools. The schools were drawn from across three diverse geographic areas – Oxfordshire, Leicestershire and the London Borough of Hounslow – and were recruited through existing links with the Youth Sport Trust.

Schools initiated their planning by carrying out a self-review to better understand the current situation for less-active girls in their schools.

Lead teachers took part in a familiarisation/planning day delivered by the Youth Sport Trust to:

- reflect on and understand the needs of less-active girls in their school
- discuss strategies highlighted in the literature review and The Tipping Point: confidence and attitudes in seven and eight year old girls report
- plan tailored interventions to pilot on their return to school.

Girls from Years 4 and 5 were recruited by teachers to participate in the interventions.

Interventions varied widely within a range of defining features. Some encompassed a mixture of peer-, coach-, parent and teacher-, or school staff-led approaches. They spanned traditional and non-traditional school sports and activities, indoor and outdoor activities, and individual and team/group-based activities. Some interventions targeted specific individuals on a 'by invitation' basis, whereas others were more flexible in reaching broader cohorts. Some interventions focused specifically on girls, whilst others were delivered to both girls and boys.

EVALUATION

Participation in the evaluation was subject to parental consent.

A baseline questionnaire on physical activity and psycho-social outcomes was administered during week one by researchers from Loughborough University and completed by 100 girls at the outset of the project. The girls were also asked to wear an activity monitor for seven days then return it to school.

The same questionnaire was repeated at the end of the intervention (week nine) and the activity monitors were deployed for a further seven-day period. Teachers were also asked to complete a process evaluation log to provide information about their specific interventions. Questions covered: the duration of the project, the extent of parental support, pupil engagement, support and information from the Youth Sport Trust, intervention delivery, perceived changes in behaviours, and thoughts on how the project might help to provide evidence against the Ofsted inspection criteria.

By week ten the interventions and data-collection were complete.



This project links to the School Improvement Plan and our PE and Sport Premium projected spends for the year."

WHAT WE FOUND

This study found...

...a higher percentage of girls reported 'being very active sometimes, quite often or always' following the project (92.5%) compared to at the beginning (83.8%).

The seven schools clearly valued being involved in the study. They reported signs of improved attitudes towards physical activity and that girls' participation improved in different ways, from reduced sitting-out in PE lessons to them trying new activities or leading activities.

KEY RESULTS ON AVERAGE, AFTER THE INTERVENTION:

24.4%

more girls rated physical activity as being very important.

5%

more girls reported using an active form of transport to school.

5.2%

more girls reported playing at lunchtime rather than sitting or standing around.

8.7%

more girls reported being active sometimes, quite often or all the time during PE.

9.8%

more reported liking learning at school a lot; however there was also a

3.3%

increase in girls responding they disliked learning.

12%

more girls reported that they met the physical activity guidelines.

Very little changes in objectively measured physical activity accumulated across the whole school day. However, an exploration of the time-stamped data showed, descriptively, decreases in pupils' sedentariness at 9am, 2pm and for the majority of the after school period.

This study found...

... a higher percentage of girls achieving 60 minutes or more of physical activity most or every day following the project (67.4%) compared to the start (54.9%). At the start 2.1% of girls stated they never achieved 60 minutes a day; this dropped to 0% at the end.

PROCESS EVALUATION

- On the whole, the teachers seemed to find the resources and information feasible and useful and, in particular, they appreciated the familiarisation day for formulating ideas and planning their own delivery.
- Gender-specific PE lessons, a girls' leadership academy and peer-led activities were rated as the top three intervention components by the teachers.
- The teachers reported that a key method to engage parents was to set 'activity homework' for the girls.
- All of the teachers said they believed: a) the aims of the project were clearly understood; b) barriers, when experienced, were overcome; c) the interventions added value to existing provision for less-active girls; d) aspects of the programme will be sustained; and e) the intervention had a reach beyond the targeted group.
- The most salient reported barriers to delivery of the programme included time, weather and poor parental engagement.
- All of the teachers said the project could be used to satisfy Ofsted inspection criteria.

CONCLUSION

The evaluation provides some promising results to support the use of a multi-component, flexible school-based programme that targets girls.

This study found...

...58.8% of less-active girls rated physical activity as being very important at follow up compared to 34.4% at the beginning.



Extremely satisfying to see girls who were inactive at break and lunchtimes actively moving as a result of this project."

This study found...

...a 5% increase in students who reported running and playing hard most of the time during lunch time and 5% decrease in students sitting or standing around following the project.

RECOMMENDED APPROACHES

The following recommended approaches for engaging less-active girls aged 8-10 years have been distilled from the results of this study. These are explored further in the accompanying toolkit.

1. CONSULT WITH LESS-ACTIVE GIRLS

As a starting point and ongoing two-way process, this is essential to understanding girls' needs, giving them ownership of physical activities, and helping to build trust.

2. ENGAGE PARENTS

Involving parents/carers is a key ingredient for successful implementation. Lack of parental support can impede girls from being more physically active.

3. TRAIN SCHOOL STAFF

Time out for staff to reflect, formulate ideas and plan the intervention is vital.

4. MAKE IT RELEVANT

Understand and explore the factors that prevent less-active girls from being active.

5. INCREASE OPPORTUNITIES IN THE LEARNING ENVIRONMENT

Provide opportunities throughout the school day, in PE lessons and at break times for less-active girls to be physically active.

6. IDENTIFY AND PROMOTE POSITIVE ROLE MODELS

A variety of positive sporting role models can have a powerful effect on children's attitudes to physical activity.

7. PROVIDE OPPORTUNITIES FOR GIRLS TO BE LEADERS

Provide less-active girls with opportunities to demonstrate leadership and make decisions to increase their effort during PE lessons and physical activity sessions.

8. FOCUS ON FRIENDSHIP AND FUN

Informal, girls-only physical activity sessions, which focus on fun and enjoyment with friends, are very successful.

9. PROVIDE REWARDS AND RECOGNITION

To influence girls' attitudes, recognise and reward effort as well as achievement.

10. USE PHYSICAL ACTIVITY TO ATTAIN PERSONAL DEVELOPMENT GOALS

Interventions with both physical and cognitive components, such as goal-setting, tend to influence children's levels of physical activity more strongly than those using only one component.

Physical activity for children and young people (5–18 Years)



BUILDS
CONFIDENCE &
SOCIAL SKILLS



DEVELOPS
CO-ORDINATION



IMPROVES
CONCENTRATION
& LEARNING



STRENGTHENS
MUSCLES
& BONES



IMPROVES
HEALTH
& FITNESS



MAINTAINS
HEALTHY
WEIGHT



IMPROVES
SLEEP



MAKES
YOU FEEL
GOOD

Be physically active

Spread activity
throughout
the day

All activities
should make you
breathe faster
& feel warmer

Aim for
at least
60
minutes
everyday



PLAY



RUN/WALK



BIKE



ACTIVE TRAVEL



SWIM



SKATE



SPORT



PE



SKIP



CLIMB

Include muscle
and bone
strengthening
activities
**3 TIMES
PER
WEEK**



WORKOUT



DANCE

Sit less



LOUNGING

Move more

Find ways to help all children and young people accumulate
at least 60 minutes of physical activity everyday

UK Chief Medical Officers' Guidelines 2011 Start Active, Stay Active: www.bit.ly/startactive

APPENDIX 2

SCHOOLS' TOP TIPS

- Take **time out**: for staff to formulate ideas and plan the project.
- **Consult**: with the girls; they need to have ownership.
- **Self-review**: to understand the current situation in school.
- Start **early**: target girls the year before and get their parents engaged.
- Be **open**: to less-active girls and to new ideas and strategies to engage them. A soft approach is needed.
- Use **friends**: to encourage and support each other; girls' friendship groups are a powerful force!
- Engage **parents/families**: do it early; if parents are not on board, the message will be lost.
- Use **peer role models**: use older girls to engage and motivate younger girls.
- Provide **positive role models**: as many girls do not have these at home or outside of school.
- Set **goals**: to give girls purpose, motivation and a sense of achievement; goals could be participatory, skill-based or competitive.
- Offer **family challenges**: to gain support for less-active girls in a fun way.
- Choose the right **deliverers**: to make sure they empathise with and understand less-active girls.
- Collect **evidence**: to demonstrate impact to staff, parents and governors. Collect it as you go.
- **Follow-up**: by taking time to evaluate, report and celebrate progress with the girls.
- Have **fun**: if you do, they will!

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- Wellington Primary, Hounslow

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