



Original Research

Implementing a set of health promoting processes in English secondary schools: A comparative case study

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ARTICLE INFO

Keywords:

Health promotion
Health lifestyles
Context
Implementation

ABSTRACT

Objective: To understand the enablers and barriers to implementing a set of adaptive processes aimed at supporting secondary schools to reflect on and subsequently address how they could adjust school practices, culture and the environment to create a whole school approach to promoting healthy lifestyles.

Study design: A qualitative, comparative case study.

Methods: Two in depth case studies were created of two purposefully selected schools in low socio-economic areas of South West England. Data were collected via meetings, observations, field notes, interviews and audit. Interviews were transcribed verbatim. Individual thematic analyses were conducted for each school and a comparative analysis approach was used to understand the barriers and enablers across both cases.

Results: Schools were supported to use a health-promoting lens and identify feasible improvements through an adaptive and context specific process. The school environment and ethos were identified as the areas where schools could conceive the most adjustments to enhance the promotion of healthy lifestyle choices. With the lack of government policy for health promotion in schools (HPS), the Head teacher's approach to health was key to making meaningful changes.

Conclusions: Health promoting school approaches need to be adaptive to local context, actively involve community partners and link to local initiatives where possible, with support from Head teachers and business managers. Starting with what teachers, pupils and parents see as the barriers to health can create a whole school ethos for broad reaching and sustainable HPS programmes.

1. Introduction

A whole school approach is accepted globally as an effective way to promote young people's health and there is evidence for the World Health Organisation (WHO) Health Promoting Schools (HPS) framework [1] in supporting healthy diet and physical activity behaviours [2–4]. The WHO HPS framework aims to create health-promoting contexts through the curriculum, the ethos and environment of the school and by involving families and the community. The framework aims to address all areas of health, both physical and mental, such as, diet, physical activity (PA), violence, bullying, alcohol, drugs, and mental health. Whilst the framework highlights the importance of health promotion permeating all aspects of school life, evaluation of its impact tends to focus on individual health behaviours rather than the creation of a health enhancing school context [5,6].

Schools are important stakeholders to answer the challenge for a

'fifth' new wave of public health improvement in the United Kingdom (UK), an approach which creates the conditions for healthy behaviours to become the norm [7]. The majority of school health promotion however, has been focused on primary school settings with little attention given to whole school approaches for health promotion in secondary schools [2–4]. The secondary school environment poses additional considerations to implementing the HPS framework, including increased autonomy of students, larger physical environments to manage, and compartmental curriculum teaching. In addition, the governance of secondary schools in England has changed considerably over last ten years with most secondary schools converting to academies; schools which are run by not-for-profit academy trusts rather than the local authority, giving them more freedom over their curriculum and environment, including canteen provision. These challenges are further compounded by the lack of a national government policy, lack of funding for health promotion, teacher workload issues and no

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<https://doi.org/10.1016/j.puhip.2021.100214>

Received 27 November 2020; Received in revised form 24 September 2021; Accepted 26 October 2021

Available online 29 October 2021

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significant element in the Ofsted¹ inspection requiring schools to be health promoting [8,9].

Schools have been described as ‘social complex adaptive systems’ [10] making it hard to predict whether and how schools will respond to and sustain programmes designed externally (as is the case in traditional health promotion programmes). Given the internal and external constraints facing health promotion in secondary schools, we hypothesised that a HPS approach needed to be adaptive to the specific needs and context of the school. Drawing on our understanding of schools as complex systems, and extensive research conducted with secondary schools to understand the barriers they face in promoting healthy lifestyle behaviours, we developed a set of adaptive processes [11,12]. The aim of these processes is to encourage schools to reflect on and subsequently address how they might be able to adapt school practices and the environment to create a whole school approach to promote mental and physical health. This paper reports on the implementation and findings of these new processes using two schools as in-depth case studies.

2. Methods

A comparative case study approach² was used taking two purposefully selected mainstream secondary schools, both situated in low socioeconomic areas in the South West of England, with students of similar economic and social status (see Table 1). Fig. 1 details the adaptive processes developed to identify how the school could better support health, as determined by the teachers, pupils and parents, and the set of actions that the school would subsequently implement.

The lead researcher worked sequentially alongside each school, for two consecutive academic years between 2019 and 2020. Data were collected via a series of meetings, observations, field notes, and reflective interviews with relevant staff regarding the overall process. An online survey was used to allow schools to audit how their school was addressing health promotion (supplementary material 1). The audit results were shared with the Head teacher and other relevant school staff, and actions were identified at a follow up meeting. If asked, the lead researcher offered suggestions of what action could be taken, however ultimately the decision regarding which areas identified by the audit the school could respond to, was driven by the school. Descriptive statistics were used to highlight the different aspects of health promotion identified by each school. Thematic analysis was used to analyse the free text audit responses, field notes, observations and interviews for

Table 1
School characteristics.

	Case one	Case two
Setting	Urban city/town	Rural town/fringe
Age	11–18 yrs.	3–19 yrs.
Total pupils on roll 2018/2019 ^a	1373	443
Pupils with EAL ^a	4.9%	3.8%
% FSM ^a	18.5%	13.4%
Year became academy	2012	2010
In/out house catering	In house	In house
Online food monitoring	Biometric	none

EAL-English as additional language; FSM-free school meals.

^a Figures taken from <https://www.compare-school-performance.service.gov.uk>.

¹ Ofsted: The Office for Standards in Education, Children’s Services and Skills is a non-ministerial department of the UK government, reporting to Parliament. They are responsible for inspecting a range of educational institutions, including state schools and some independent schools. <https://www.gov.uk/government/organisations/ofsted>.

each school [15]. A comparative analysis approach was then conducted to understand what factors supported or hindered the process [13,14].

3. Results

Table 1 outlines the key characteristics of each school case study. Table 2 details the general audit responses, process taken and resulting agreed actions associated with the adaptive processes.

Described below are the results of the comparative analysis framed around the components of the HPS framework, using verbatim quotes to illustrate.

3.1. Environment

Responses to the overarching questions on healthy lifestyle promotion from both schools were comparable, with both schools identifying the school environment as a key factor to promotion (see Table 2). The free text responses from both schools highlighted the need for the food environment to be improved; students and parents consistently suggested that there were not enough healthy, affordable options as well as proposing the restriction of unhealthy options. In case two, there was also a call for better water provision.

‘... make healthy food cheaper because cake is cheaper than fruit’ (Student C2)

‘The quality of food available is surprisingly poor. It appears to be refined carb heavy, poor quality protein and devoid of plant based offerings. A fruit pot doesn’t balance the overall lack of fruit and veg.’ (Parent C1)

‘Get rid of the unhealthy foods in the canteen.’ (Student C2)

In discussions with staff from case one they commented that they did not have to meet current government food standards; when they were under local government control, ‘red’ foods (those high in sugar, fat or salt) were not allowed to be sold in school canteens however, since converting to an academy this was no longer a requirement. It was clear that this was an area of the school which was unlikely to change significantly due to the business nature of the canteen; there was a need to make money and thus provide foods that the ‘customers’ would buy.

‘... there’s a wall ... and however passionate she [canteen manager] was [about healthy foods] it wouldn’t change that much ...’ (Staff interview C1)

In case two the staff demonstrated an awareness and motivation to make changes, and the school had recently signed up to the Food for Life bronze award² which was stimulating modifications to the menu.

The provision of extra-curricular physical activity (PA) within both schools was reported as sufficient, although students and parents asked that there be more sessions with a wider choice of activities.

‘[provide a] Wider range of sport activities that suit the pupils choices.’ (Student C1)

Students and parents also expressed a need for there to be more encouragement and support to attend.

‘Outside activities are provided but encouragement is not given.’ (Student C2)

Staff in case one reported that extra-curricular activities were not always well advertised and thus not well attended. In discussions with

² Part of the Soil Association, Food For Life school supports schools to take a whole school approach that sees them grow their own food; organise trips to farms; provide cooking and growing clubs for pupils and their families; serve freshly prepared, well-sourced meals and provide an attractive dining environment. <https://www.foodforlife.org.uk>.

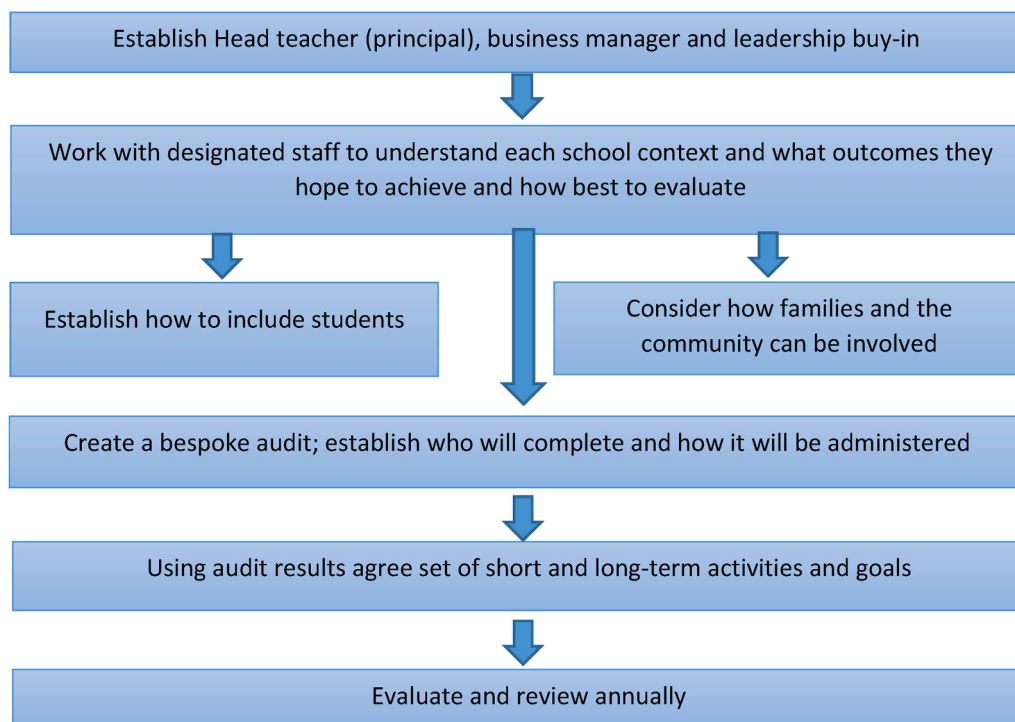


Fig. 1. The adaptive processes developed to identify how the school could better support health.

staff in case two, extra-curricular activities were not an area of the school that they felt was a priority to action as the Physical Education (PE) department were described as very motivated but working at full capacity.

3.2. Ethos

Staff in case two recognised that health was an important issue, that the school had a role in supporting both students and staff to make healthy choices, and sought to develop a joined-up, proactive approach to addressing health across all aspects of the school. The current pandemic had heightened the urgency for this approach.

'I think we are going to have to be harsher on it though, because at the moment it's also so linked in with Covid, obesity and Covid, and we do have a fair number of staff and students with issues, with obesity who really are struggling there and we should be supporting them much better.' (Staff interview C2)

Monitoring and incentives were suggested in both schools as required to support healthy choices by parents and students at both schools.

'If you do certain things to do with eating healthy you can get praise points.' (Student C2)

All staff however, suggested that this was unfeasible due to limited time and staff workload. The leadership team in case one reported that food monitoring was the responsibility of the parent; they described not having the resource to monitor food choices in the canteen or when students bought food in from home.

Students also mentioned the need for more support and better role models on making healthy lifestyle choices:

'Help people that say they can't do it but then motivate them to do it.' (Student C2)

'I've [have] seen other teachers with drinks we are not allowed [allowed] at school so I would change the rules so teachers are not allowed the drinks we are not allowed.' (Student C1)

The personal healthy lifestyle belief of the Head teacher was central in determining the overall approach each school took to implementing meaningful changes. In case one it was suggested that whilst buy in from the leadership team within the school was necessary to undertake the process, it was the Head teacher and the business manager who ultimately determined what changes were made.

'... the finance manager and the Head, that is the crux of it. If [Head teacher] wanted it to change, it would change. If I wanted it to change I would get so far depending on how it impacts probably on them and money.' (Staff interview C1)

Government policy was discussed as being needed to motivate the Head teacher to make health a priority.

'... that would depend very much on what the government see as a priority and if Ofsted make a real emphasis on health eating/body that sort thing then that would make it a priority ...' (Staff interview C1).

In case two however, it was clear from the start that the staff felt confident to make changes due to the knowledge that the Head teacher would support feasible actions. This allowed them to self-organise and make changes that were more meaningful without seeking the Head teachers' approval. Certain members of staff were also perceived as playing a critical role in keeping health promotion on the agenda: *'... her [Food tech teacher] philosophy and her curricula has made a massive difference'* (Staff interview C2). It was however also acknowledged that some staff were resistant to making changes.

In case two the school also included a question about student mental well-being in their audit. Students highlighted they needed more support, and that their homework should be relevant and manageable.

'By having less homework so it doesn't cause as much stress' (Student C2)

Students also mentioned the need to have more literacy around

Table 2
Audit responses, process and actions.

Audit:	Case one	Case two
Number of responses	160 students, 132 parents, 14 staff	145 students
Overarching questions:	<i>How well do you think your school supports you to eat healthy foods and drinks?</i>	
	<ul style="list-style-type: none"> • Not well 34 (11.2%) • Slightly well 66 (21.7%) • Moderately well 131 (43.1%) • Very well 63 (20.7%) • Extremely well 10 (3.3%) 	<ul style="list-style-type: none"> • 48 (33.1%) • 86 (59.3%) • 11 (7.6%)
	<i>How well do you think your school supports you to be as active as possible?</i>	
	<ul style="list-style-type: none"> • Not well 14 (4.6%) • Slightly well 31 (10.2%) • Moderately well 92 (30.3%) • Very well 106 (34.9%) • Extremely well 67 (22%) • Other 1 (0.3%) 	<ul style="list-style-type: none"> • 23 (15.9%) • 94 (64.8%) • 34 (23.4%)
	<i>How well does your school support you to look after your mental wellbeing?</i>	
	<ul style="list-style-type: none"> • Not well n/a • Moderately well • Very well 	<ul style="list-style-type: none"> • 29 (20%) • 89 (61.4%) • 27 (18.6%)
Process:	Case one	Case two
	<ul style="list-style-type: none"> • Head of Physical Education (PE) was main contact. • Initial meeting explored approach school would like to take • The school designated an already established group of students to support the work, co-design and analyse the audit • The school circulated the audit to teachers, parents and students • The student group presented results to the Head teacher • Follow-up meeting with the Head teacher and Head of PE to explore a set of feasible actions • Follow-up meeting with canteen manager, Food Technology teacher and Head of PE to refine the actions • Reflective interview with Head of PE 	<ul style="list-style-type: none"> • Associate Principal (AP) was main contact. • Initial meeting explored approach to take, AP decided to use the same audit designed by case one students, edited to include mental wellbeing. • The school circulated the audit to students to complete in Personal, Social, Health and Economic (PSHE) lessons. • Follow-up meeting with the AP and the Food Tech teacher to discuss feasible actions. • The results and proposed actions were presented at a whole school assembly. • Follow-up meeting to discuss progress with AP and Food Tech teacher • Reflective interview with AP
Actions:	<ul style="list-style-type: none"> • Food Technology students to create a 'healthy lifestyles board' outside the canteen to demonstrate healthy or unhealthy foods and the amount of exercise adolescents are advised to take • Food Technology students to apply the 'traffic light' system to label the foods on offer in the canteen • PE staff would actively encourage and support students, particularly 'non doers', to attend extra-curricular activities • PE GCSE and 'A' level students to present assemblies to each 	<ul style="list-style-type: none"> • Conducted audit of the canteen food and changed the canteen menu to include seasonal, fresh cooked foods in line with the 'Food for Life' bronze award. Changed the provision of food in the breakfast club to healthier options. Stopped cake sales as fundraising activity • Procured two new water fountains and stopped the provision of less healthy drinks, offering only flavoured waters

Table 2 (continued)

Audit:	Case one	Case two
	year group to provide information on leading a healthy lifestyle and help promote healthy choices within school.	<ul style="list-style-type: none"> • Limited a particular member of staff from bringing in unhealthy cakes/snacks • Food Tech students had to include a healthy eating option in their class assignments • Leadership asked teachers to only set homework that was really necessary • Procured a Mindfulness programme for the entire school and appointed additional counsellor for students. A member of staff shared their experience and advice in an assembly.

PE: physical education; PSHE: Personal, social, health and economic; GCSE: General Certificate of Secondary Education; 'A' levels: are a college or sixth form leaving qualification offered in England, Wales, and Northern Ireland.

mental health and clear support networks available.

'Teaching us more about our mental wellbeing' (Student C2)

3.3. Curriculum

The provision of PE lessons was considered adequate in both schools, although there was a call for more lessons and more choice in the types of sport available.

'Make time for more PE lessons and that ensure the school are doing their utmost best to keep us healthy during school.' (Student C1)

Students and families from both schools also described the need for more learning and information regarding leading a healthy lifestyle.

'Have specific classes teaching about the effects of certain food on the body, teach the science behind it, protein, fat, too much sugar etc.' (Parent C1)

'Give more advice in and around the school to help students to eat healthier.' (Student C1)

'More knowledge on mental health' (Student C2)

Conversations with staff identified the areas of the curriculum that addressed health as Food Technology, Personal, Social, Health and Economic education (PSHE) and PE, with no suggestion that other subjects could address health. In case one it was felt that health was addressed as much as possible within PHSE lessons, although it was acknowledged that the range of topics covered in PSHE was considerable and therefore the time spent on healthy lifestyles minimal, and additional support was offered by staff in an ad-hoc manner. Food Tech was also an area discussed by both schools as supporting lifestyle messages and in case two, the staff were proactive in getting the messages to the whole school. PE was seen as an area to promote healthy messages but the number of PE sessions had been cut in both schools so the ability to cover healthy lifestyles in teaching was limited, with the exception of students undertaking PE as part of their General Certificate of Secondary Education (GCSE).

3.4. Family and community

Contact with families in secondary schools is limited; both schools mainly had contact with the families of students through a 5 min slot in a

parent/teacher meeting to discuss academic performance or when there is an issue with a student. Schools described using social media accounts to deliver messages to parents. In case one there was a clear parent voice within the audit responses and motivation for the school to make improvements in its healthy lifestyle messages. In contrast, case two decided not to circulate the audit to parents.

There were good links with the community in case two, which were not evident in case one apart from some links for extra-curricular sports activities. During the Covid-19 lockdown, staff from case two described how this connection had been strengthened due to the help of a local community group, which secured healthy donated foods that were used to supply local families, and in future would be used in Food Technology classes.

‘the thing is the food bank has lots of food and they are happy to give us things for school for us to use in lessons and part of my thought for that is we are able to give children more food to take home really for the more disadvantaged families because at the moment we do very small portions’ (Staff interview C2)

4. Discussion

Understanding schools as complex systems suggests that changes to the system come about as a result of sense making, feedback loops and self-organisation; this led us to propose that the recognition for change had to come from within the system rather than an externally directed programme [10,16]. Acknowledging context as a core construct for understanding the adoption and sustainability of change has also come to the fore. We therefore developed a set of processes, which allowed schools to reflect on how health promoting their school was, and to focus on the areas where they could make feasible and achievable changes. We were mindful of the issues of sustaining health promotion in schools once the programme or funding had finished [9,17], so having an adaptive process which schools could repeat periodically was seen as a sustainable means to maintaining a culture of health promotion.

This research has shown that without national government policy in place to incentivise schools to prioritise healthy lifestyles, having a Head teacher with a health-promoting ethos alongside a proactive leadership team is central to optimising health promotion in schools. With over 70% of secondary schools converting to academies in the last ten years, a school belonging to an academy trust that prioritises health is also key. However, this results in a lottery for students and staff if they do not attend a health promoting school, making government policy vital.

The WHO HPS framework provides an outline to structure a whole school approach and place a health-promoting lens on the school setting. In the case studies illustrated in this study, the school ethos and environment were identified as the main areas where improvements could be made. Both case study schools saw opportunities to support learning healthy lifestyle behaviours outside of a prescriptive and constrained curriculum, but through more flexible means such as assemblies, tutor times and messages on notice boards [18]. The health-promoting ethos of the Head teacher had a significant impact on determining how the school responded to the audit as well as the implementation of the planned actions. The family and community aspect of the framework is often highlighted as missing or not sufficiently addressed by interventions [4,19]; in previous work secondary schools highlighted that it was hard to conceive what this might look like, particularly in relation to community [19]. Case two had existing good community connections, with staff in this school having a sense of who their local community were and a willingness to engage with community groups and vice versa. The benefit of this relationship was very apparent and future implementation should proactively engage with local community groups to enhance support to the school as well as support local activities and initiatives.

Secondary schools are in a unique position to educate, support and

role model healthy behaviours for children and young people by taking a whole school approach to creating health-promoting environments. With a renewed call, due to the Covid-19 pandemic, for schools to provide more free school meals and with an emphasis that these meals are healthy, there is a pressing imperative for schools to review food provision and co-create strategies for healthy options.

Using specificity to the local context as the starting point and developing a set of adaptable and repeatable processes, proved effective in supporting schools to take a health-promoting lens to their environment and consider the areas where their school could make simple, achievable improvements. Previous school-based public health research has focused on designing interventions as sets of activities targeting individual health behaviours rather than adaptive processes, which respond to the specific needs of the school. There is however, a paucity of measures to capture the health culture of a school and to illustrate how HPS approaches can impact system change and support healthy behaviours [20].

This research suggests that this adaptive set of processes could be a sustainable means for schools to identify and respond to issues, in order to create the optimum conditions for health. Further research is needed to ascertain the impact on staff and pupil health and the sustainability of any changes.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgements

Alison Hurst for her technical help.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.puhip.2021.100214>.

Ethical approval

Granted by the University of Exeter College of Medicine and Health ethics committee, certificates: 021219/100820.

Funding

CMc is funded by a fellowship from All Saints Education Trust (ASET), the views expressed are those of the authors and not necessarily those of ASET. SL is supported by the National Institute for Health Research Applied Research Collaboration South West Peninsula. The views expressed in this publication are those of the authors and not necessarily those of the National Institute for Health Research or the Department of Health and Social Care.

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