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Citation:

Woodward, J and Sahota, P and Pike, J and Molinari, R (2015) Interventions to increase free school meal take-up. *Health Education*, 115 (2). 197 - 213. ISSN 0965-4283 DOI: <https://doi.org/10.1108/HE-08-2014-0083>

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Interventions to increase free school meal take-up
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Published in Health Education, Volume 115, Issue 2, pp 197-213 (2015)

Abstract

Purpose: This study aimed to design and implement interventions to increase Free School Meal (FSM) uptake in pilot schools. This paper describes the interventions, reports on acceptability (as perceived by school working parties) and explores the process of implementing change.

Design: The research consisted of two phases, an exploratory phase followed by an intervention phase. Findings from the latter are presented. Ten pilot schools (five primary and five secondary) in Leeds, England were recruited. Each established a working party, examined current claiming processes and implemented individualised action plans. This paper draws on the final action plans and interviews / focus groups with working parties.

Findings: Interventions to improve FSM claiming process, minimise discrimination and maximise awareness were designed. The majority were implemented successfully, the exception being amending anti-bullying policies. Creative ways of delivering interventions were demonstrated. The process of change was effective, critical factors being having individualised action plans that allowed flexibility in implementation, reflecting on current claiming processes, and setting up working parties.

Practical implications: Ways of working with schools to increase FSM uptake and more generally improve nutritional policies are suggested. Amending claiming systems in schools is recommended as is greater pupil and parent involvement in nutrition policies.

Originality/value: An estimated 300,000 UK children do not take FSMs they are entitled to – with many schools unaware of the issue. This study worked with schools to discover how to address this issue and evaluated the perceived acceptability and feasibility of the approach.

Introduction

Improving the nutritional quality of school meals in England became a focus of government policy in 2006 (Nelson, 2011). Since 2009, meals served in English state schools (excluding academies founded between 2010 and June 2014¹) have had to conform to nutrient based standards (Adamson *et al.*, 2013). The introduction of these standards has improved the nutritional quality of school lunches (Nelson, 2011; Adamson *et al.*, 2013; Spence *et al.*, 2013) with school lunches having a healthier nutrient profile than packed lunches (Pearce *et al.*, 2011; Pearce *et al.*, 2013; Stevens *et al.*, 2013). The School Food Plan emphasises the need to continue striving towards creating a 'great food culture' in all schools with an increase in take-up identified as critical to success (Dimbleby and Vincent, 2013).

Health inequalities persist in the UK, building up through the life-course, and manifesting as poorer health and earlier deaths for the less affluent, therefore intervening in early and school years is vital (Marmot Review, 2010). Children from low-income households in the UK have poorer diets (Church, 2007) and experience higher levels of ill health, including increased prevalence of obesity than average (Craig and Mindell, 2013). 21% of English children are entitled to a Free School Meal (FSM) (Iniesta-Martinez and Evans, 2012). Targeted at the poorest families, entitlement is currently assessed by means testing household income. Those eligible can choose to receive a meal equivalent to two courses and a drink, from the standard offering, during the school day. The entitlement is worth nearly £10 per school week per child, or £370 per annum (The Children's Society, 2012). Considering approximately 60% of children entitled to a FSM live in absolute and relative poverty (DWP, 2013) this represents a significant amount. Since September 2014 all children attending English state schools up to and including Year 2 (aged 6 or 7) are entitled to receive a FSM regardless of their household background, whilst from Year 3 upwards means-testing remains.

Ensuring households take up their FSM entitlement is therefore important for children's health, it assists poor families financially and helps address dietary inequalities. It also potentially impacts on academic performance - a review concluded that a well-balanced diet enables good cognitive and behaviour performance (Sorhaindo and Feinstein, 2006) and a tentative link between an improvement in diet and schoolchildren's academic performance is

¹ Academies and free schools receive their funding from central government and, unlike other state schools, are not managed by local authorities. They are however still state funded and free to attend.

emerging (Belot and James, 2011; Kitchen *et al.*, 2013). However, of the 1.4 million pupils in England estimated to be entitled to a FSM, approximately 300,000 do not take up their entitlement (Iniesta-Martinez and Evans, 2012) with two-thirds of these not registered and one-third registered but not eating them. The potential benefits of FSMs are therefore not reaching many they are designed to help.

The 2012 report “Going Hungry?” (Farthing, 2012) cited inadequate allowance amounts (meaning children went hungry), long queues, not being able to eat with friends and stigma as barriers to claiming for a FSM. Stigma was experienced by some, but not all pupils. Opportunities for identifying those claiming for a FSM included voucher based payment systems, cashless systems where the FSM allowance amount flashed up on the till and school trips. Previous studies cited stigma, parental and pupil unease and inadequate information as barriers (Dowler *et al.*, 2001; Storey and Chamberlain, 2001; Morrison and Clarke, 2006). Evidence from universal free school meal pilot schemes demonstrate that complete take-up is not achieved (Kitchen *et al.*, 2013) and there is a lack of evidence on how to intervene in schools to increase uptake. More generally, a review (Wang and Stewart, 2013) identified a lack of qualitative studies to provide process learnings and recommendations on how to implement, improve and modify nutrition based projects in schools. It is argued that details of “*local implementation, design and practice*” are lacking (Gleddie, 2012, p.83).

The two phase Leeds FSM Research Project was commissioned by the City Council with the aim of increasing FSM uptake. Phase one identified factors affecting uptake and is reported elsewhere (Sahota *et al.*, 2013). Barriers identified include the bureaucratic claiming process with illiteracy, poor language skills and lack of confidence affecting some parents’ ability to apply. The relationship between school staff and parents was highlighted as a facilitator. Stigma was a concern in some schools, more often secondary ones. Barriers affecting the uptake of school meals, both amongst those pupils who paid for their meal and those who received a FSM, included the choice of food, its familiarity to them and portion sizes. The combination of a short lunch-time and long queues for hot food also encouraged pupils to take packed lunches instead of a school meal. Maximising awareness of entitlement, an easy claiming process and ensuring minimal discrimination of pupils claiming a FSM was recommended, as was greater pupil consultation to improve meal quality and the social aspects of dining.

This paper reports on key aspects of the second phase of the project. This aimed to design a series of interventions to increase FSM uptake and implement them in five primary and five secondary schools in Leeds to assess perceived acceptability. This paper will:

- Describe the interventions developed
- Explore the process of school engagement and intervention implementation
- Report on the feasibility of implementing the interventions, as perceived by school working parties
- Provide recommendations on how to increase the uptake of FSM within the current means tested system and how to engage with schools

The focus of phase two was to tackle issues specific to FSM uptake, rather than broader issues relating to school meal uptake as a whole. Trying to address issues such as the quality of school meals and the eating environment was considered too broad a remit given the project timescales.

The full phase two research report is available (Sahota *et al*, 2009). This paper does not report on pilot school's FSM uptake levels as it was not possible to make valid comparisons pre and post the intervention period. Interventions were implemented part way through the academic year. As school meal uptake varies seasonally any valid findings require a comparison with the previous year's uptake levels and these figures lacked accuracy. This is discussed in detail in the full report along with the more accurate method of collecting uptake data developed by the research team during the project.

Findings will be useful for those who work in the area of school food including local authorities, schools, caterers, nutritionists and dietitians plus public health professionals interested in creating a healthier school environment.

The Research Approach

The Health Promoting Schools model underpinned this research (Young and Williams, 1989). This emphasises involving the whole school, including the ethos, policies and management style, in the process of change. It incorporates the taught curriculum, encourages partnerships with families, communities and outside agencies plus changes to the school environment. The approach of the FSM research project was a holistic one. The research team worked with different agencies within the school including senior managers, teaching

staff, catering providers and administration staff to tackle both the culture surrounding FSMs and the systems involved. Outside agencies, in particular the local benefit services, were actively involved whilst engaging with parents was seen as a critical part of the project. Recent research examining the process of improving school nutrition includes an evaluation of the Battle River Project in Canada (Gleddie, 2012), the Healthy ONES group randomized trial in US (Coleman *et al.*, 2012) and a process evaluation of a whole school food programme in UK primary schools (Orme *et al.*, 2013). Whilst models varied, common success factors and issues emerge.

A key success factor is acknowledging that schools are complex organisations with their own regulations, practices and cultures (Gleddie, 2012; Coleman *et al.*, 2012; Orme *et al.*, 2013; Wang and Stewart, 2013). Whilst there can be specific programme goals, standard interventions cannot be rolled out across schools and different strategies for change may need to be utilised (Coleman *et al.*, 2012). Early participation of key stakeholders is critical to develop ownership and ensure capacity is built within schools so changes are sustainable. Different mechanisms are evident but all include setting up a group (Orme *et al.*, 2013) or committee (Gleddie, 2012; Coleman *et al.*, 2012) with members including teaching and catering staff plus senior members of school management. Some involved pupils and parents but this was not universal. Orme *et al.* (2013) called for greater pupil participation. The input of external parties or resources, such as a research team, was beneficial and helped empower schools (Orme *et al.*, 2013). Other success factors included; schools being aware of the issues being addressed and valuing health, allowing teachers and staff flexible release time for training and establishing networks between schools (Gleddie, 2012). The most commonly identified issue was having insufficient time for the process of change to occur. Wang and Stewart (2012) suggested one year was needed for implementation whilst Coleman *et al.*, (2012) said three years were needed for changes to become embedded. Other issues included; the difficulty of freeing up time for involvement, finding an age appropriate focus for pupils and maintaining the energy and stamina needed to make changes (Orme *et al.*, 2013).

Methods

The Intervention process

Approval was obtained from the Faculty Research Ethics Sub-Committee at Leeds Metropolitan University.

The project consisted of five stages - see **Figure 1**.

Stage 1: Intervention design

Ideas for interventions were based on factors affecting FSM uptake, identified in phase one. They were generated at a workshop attended by local stakeholders including the research team, Education Leeds, catering providers, schools (teaching and administration), youth representatives and the benefits service.

The proposed interventions aimed to ensure parents knew about their entitlement, the FSM claiming process in school was as simple as possible for pupils and stigma was minimised. Specific objectives included ensuring;

- Pupils felt comfortable claiming for their FSM by both minimising the opportunity for others to know who was entitled and treating claiming for FSMs as normal or a ‘good thing’ by pupils and staff.
- Supportive systems were in place for pupils if they felt they were being teased or bullied.
- Parents were aware of their potential entitlement to FSMs and how to claim, they were reassured anonymity was maintained in schools and knew what their children could get within the FSM allowance.

Within this pilot it was not possible to alter who was entitled to a FSM or the process by which parents claim their entitlement as these are set by national and local benefit systems. Any ideas for interventions generated relating to school meal uptake as a whole (rather than specifically FSMs) were noted. Pilot schools could trial these after phase two and they were fed into the Leeds school meals strategy action plan.

Stage 2: Pilot school selection & recruitment

The aim was to recruit five primary and five secondary schools in the Leeds area with a high eligibility but a low take-up of FSMs. A range of schools in terms of % Black and Minority Ethnic (BME) pupils and catering providers were to be included and, in secondary schools, both cash and cashless payment systems (in primary schools payment is made in advance by parents). Schools undergoing major catering changes were excluded. Schools fulfilling the

criteria (based on data provided by the Local Authority) were invited to participate. The research team discussed potential involvement and available support with the Healthy School Co-ordinator or head-teacher. It was emphasised that participation was voluntary and involved substantial work and potential organisational change. Those wishing to participate signed a memorandum of understanding.

Stage 3: Stakeholder engagement

Each participating school set up a working party to implement interventions and manage the change process. Suggested members included a school representative to act as the main project contact (the lead), the catering manager, school administrator and pupil representation. A briefing session was delivered by the research team and the local benefits service. Topics included the importance of FSMs, the claiming process and their school's uptake levels. Reasons for low uptake and suggested interventions were discussed and proposed action plans presented – see stage 5.

Stage 4: Reflection on current claiming processes

Working parties examined the current FSM claiming process in their school. They undertook a 'virtual journey' considering the process pupils and parents followed, where anonymity may be jeopardised and potential barriers. To inform this process, findings from pre-intervention questionnaires were fed-back to working parties (see **Table 1**). In these questionnaires, parents and secondary school pupils who were entitled to FSMs (and may or may not be claiming) were asked for their opinion on the current claiming process, barriers to claiming and possible improvements. Primary school pupils did not participate in these questions as they are often unaware of their entitlement. This feedback mechanism ensured working parties gained the perspective of parents and pupils entitled to FSMs and were aware of any concerns they had.

Stage 5: The implementation cycle

Working parties were responsible for developing an individualised action plan, using a standard template, for their school based on the suggested interventions developed in Stage 1. There was flexibility in terms of how and when schools implemented the interventions depending on their systems and the findings from Stage 4. Researchers supported the process by meeting regularly with working parties, providing resources and analysing questionnaires to aid decision-making.

Data collection and analysis

A comprehensive evaluation plan incorporating a process evaluation and quantitative and qualitative research methods was developed to evaluate the interventions. Table 1 details the methods used. As this paper explores the process of implementation and the perceived acceptability of interventions it draws largely from the working party focus groups / interviews, the individualised action plans and meeting minutes. Questionnaire data is included where relevant.

The intention was to hold a focus group with each working party post intervention but where this was not possible an interview with the lead contact was conducted instead. A semi-structured format with pre-defined areas for exploration was utilised including participants' roles in the project, the situation pre-intervention, the effectiveness of the action plan format, how acceptable they found the interventions and any barriers to implementation. Areas of 'best practice' were identified as were recommendations for future initiatives. The researcher who facilitated the focus groups and interviews had not been involved in implementing interventions. This increased validity as it allowed participants to comment more freely on the process. To maximise reliability the focus groups and interviews were recorded and transcribed. A thematic analysis was conducted – emerging themes were identified and transcripts coded accordingly (Tesch, 1990).

Individual action plans were kept updated by school working parties and monitored by the research team at monthly meetings with minutes recorded. At the end of the intervention period these were checked for actions taken, implementation timings, and any comments on process, perceived acceptability and resources provided by the research team.

School meal uptake data was collected weekly throughout the intervention phase. At the beginning of the intervention it became evident that uptake data collected by schools before the intervention period lacked accuracy. A new system was developed by the research and benefit services teams and school staff trained in how to use it. This is discussed in greater detail in the full research report.

Results

Ten Leeds schools were recruited, with a total of more than 750 pupils eligible but not taking their FSM. **Table 2** shows the characteristics of participating schools. Interventions have

been categorised into those to a) improve the claiming process b) minimise discrimination and c) maximise awareness. In each section the interventions are described, levels of implementation given and any comments on acceptability presented.

Improving the FSM Claiming Process

Two interventions to ensure the claiming process was simple and anonymous featured on school action plans:

- The FSM claiming process to be examined in each school - if identification of those claiming was possible, alternative systems to be explored and implemented. This aimed to minimise the opportunities for pupils claiming a FSM to be identified by others.
- A flow chart to clearly explain the FSM criteria and the claiming process was developed and distributed to all members of the working party. This aimed to improve levels of understanding so school staff could communicate more effectively with parents and benefit services regarding FSM claims. Administration staff were a particular focus as they often have very positive relationships with parents and are used to discussing monetary issues, yet many were not clear what the FSM criteria was and how they could help parents claim.

All schools implemented these interventions, with the precise actions taken dependent on existing payment arrangements and levels of anonymity.

Primary Schools (x5). In four primary schools payment systems preserved pupil anonymity. Parents who paid for a meal either gave money to the school office or placed it in boxes around the school. Those not paying were therefore not identifiable. In one school anonymity was not maintained as teachers asked pupils for dinner money in class. This school altered their system during the project so parents paid at the office instead. It was identified that school trips sometimes revealed which pupils had a FSM as they received a free packed lunch, sometimes in distinctive packaging, whilst those who paid brought their own lunch boxes. One school addressed this by asking entitled pupils to bring in their own lunch boxes whilst another bought branded boxes for free lunches, making it less obvious who received one. Another school acknowledged this was an issue but had not tackled it by the end of the intervention period.

Secondary schools (x5). Cash based payment systems were used in three secondary schools. These require FSM entitled pupils to be identified at the dining hall payment till thus removing their anonymity. In one school entitlement was particularly obvious as pupils had to state their name, often repeatedly due to high noise levels, to be checked against a list. Two schools tried to improve their systems by issuing entitled pupils with a photo-card or distributing tickets at the school office but neither of these systems ensured anonymity. Cashless systems operated in two schools. This should ensure anonymity as the pre-paid swipe cards utilised get topped up automatically if the pupil is entitled to a FSM. In one school the system operated smoothly and maintained anonymity. In the other, there was a long wait for swipe cards meaning pupils still had to inform cashiers verbally about their entitlement.

Minimising discrimination

Four interventions aimed to ensure supportive systems were in place if pupils were teased, bullied or had a query about claiming for a FSM – these are detailed in **Table 3**. Having a designated staff member as the key FSM contact aimed to ensure pupils and parents knew who to talk to if they had any queries about claiming or if they were experiencing any problems. Incorporating FSM as a topic in lessons and assemblies aimed to raise awareness amongst pupils and normalise claiming. Amending anti-bullying policies to include a reference to FSMs aimed to minimise stigma by making clear that teasing others about their family income was unacceptable.

All schools established a designated FSM contact, nearly all held assemblies and lessons but only two amended anti-bullying policies. The research team provided training, resources and advice.

How schools implemented the assemblies and lessons varied. In primary school assemblies, pupils dressed up, wrote placards featuring events relating to school meals or were read stories. Secondary schools assemblies focused on the benefits of schools meals and their food policies. As secondary school assemblies are planned a long time in advance, one school was not able to implement this intervention. The lessons FSMs were featured in varied, including a Healthy Eating lesson, Food Technology, Science, Design Technology, PHSE, Policy Studies and History. In some schools the lesson was a one off, in others it featured more regularly. In both the assemblies and lessons schools preferred to focus on schools meals in

general with FSMs being a secondary message. Teachers were able and willing to devise creative ways of communicating the importance of school meals to pupils in an age appropriate way, provided they were given some resources. Working parties were positive about these interventions, particularly those using interactive formats.

Amending anti-bullying policies had the lowest implementation rate. Working parties emphasised bullying was taken seriously with systems to minimise it but it was how incidents were dealt with which was given more focus, rather than the reasons for bullying. The majority of participants felt there was no stigma attached to claiming for a FSM in their school. One reason for this was the high number of FSM entitled pupils in their schools; *“The children who pay are the minority, they’re the odd ones ... I’ve heard children say why do you pay, I don’t pay”* (primary school teacher). Another reason was that, in primary schools and secondary schools with cashless systems, entitlement was seen as anonymous; *“if they choose to keep it a secret then they can, some kids are happy to say, some aren’t”* (secondary school project lead). One primary school was the exception to this. The project lead had initially assumed there was no stigma in claiming but this changed after they developed and conducted a pupil questionnaire. This revealed that claiming for a FSM was the third most common reason for ‘name-calling.’ This realisation motivated the school to make claiming less conspicuous and they recommended other schools conduct their own survey;

“I’d ask them to find out whether there was any, not bullying, but whether there was an issue with comments being made because I think a lot of schools make the assumption that there isn’t, because I thought, no there won’t be, but I was wrong. So I’d find out.” (primary school project lead)

The research project questionnaires support the view that a minority of claimants do experience stigma. 12% of secondary school pupils entitled to a FSM said they felt embarrassed about claiming, 10% were not comfortable and 8% worried about being teased. There was variation between schools – feeling embarrassed ranged from 5% to 20%, being worried about teasing between 4% and 20%.

Maximising awareness of FSM

A range of communication methods were utilised to increase awareness of FSM entitlement, as detailed in **Table 4**.

The research team produced a range of different communication items so schools had items to suit a variety of circumstances. Templates were provided so schools could adapt if needed. The items were designed to be very visual, for example the posters and postcards had images of the money that could be saved and the school food that was available. A picture of the designated FSM contact featured on a poster displayed in school.

Postcards and letters were used by schools in a myriad of ways; sent directly to parents, handed out with prospectuses or at parents' evenings, given to pupils after assemblies or leaving them around the school to be picked up. A letter for parents whose children were entitled to a FSM but had not claimed was developed by one school and subsequently used by three others. Non-responders were contacted individually. One secondary school started writing to parents every term to remind them of their entitlement. Working parties felt the most motivational message was the amount of money parents could save whilst positive statements about the school meal service from the pupil questionnaires also featured as did messages emphasising the importance of a nutritional meal. Post-intervention questionnaires showed that 21% of primary and 18% of secondary parents remembered receiving the letters or postcards with 35% and 28% respectively not sure.

Personal contact with parents was seen by working parties as the most effective way of communicating as messages could then be personalised and immediate feedback received. Language was an issue for schools with a high % of BME pupils as only basic communication with parents could take place. Some schools were concerned about being 'too pushy', feeling meal choice was the parents' remit with- their role being to ensure they were aware of their entitlement and the meals offered; *"you can't force them, make them aware of the options, give them the chance to experience it and that's all you can do"* (primary school project lead).

The implementation process

Factors for success and barriers that emerged from the working party focus groups and interviews are now presented.

All working parties included the suggested staff representatives. Project leads were most commonly deputy head-teachers or Healthy School Co-ordinators though a head-teacher, parent support worker and administration manager also undertook the role. Participants felt

this was the optimum mix with the involvement of a senior staff member particularly important, as was administration support. Greater briefing of other staff members was suggested. Active pupil involvement in implementation was limited.

Two leadership styles were evident; a more 'top-down' approach, allocating responsibilities in line with their school role and a more inclusive style taking ideas from everyone. The latter appeared to be associated with more inter-departmental working. One participant compared her previous and current schools; *"that's your department, that's my department; it's just not like that here at all"* (primary school catering manager). Many working party members went beyond their official remit for example catering staff cooking at parents' evenings, attending school assemblies and one even painted a dining hall mural.

"there's an attitude we all have ... it's a team thing, there's an expectation that you expect your team to work for you and if there's a bit extra to give sometimes you do that. But equally there's the other side to, if we could do something to ease your life, you know we'd do it" (primary school project lead)

Being able to challenge existing practices was an important part of the project lead's role, for example pointing out food being served lukewarm or changing seating arrangements despite this causing inconvenience to staff.

Awareness of having a low uptake in their school was a key factor in initiating the process of change. Many project leads, prior to their involvement in the research project, were aware of school FSM entitlement figures, but were not aware of uptake levels, often assuming all pupils entitled to a FSM took it; *"it (low uptake) was complete news to me"* (secondary school project lead). Once the issue of low FSM uptake had been recognised project leads were interested in the issue and willing to address it in their schools. Examining the processes within their school and the feedback from questionnaires helped increase commitment. Participants identified a number of factors that they felt would encourage other schools to take action on FSM uptake, namely; a senior member of staff having a personal interest in healthy food or inequalities, an awareness of the links between behaviour and attainment and food, tying into Ofsted inspection criteria and the involvement of the education body.

Being reflective and open to change was critical. Most working parties were willing to reflect on current processes and organisation and make changes if needed. Solutions were not always straightforward, with one participant describing it as an “*on-going process.*” A minority of schools were less willing to do so. One participant who was project lead in the school with the highest levels of concerns about teasing stated; “*it didn’t make me concerned, no*”. Concerns that the school’s reputation may be adversely affected appeared to be a barrier to reflecting and contemplating change.

Staff changes impacted on continuity, with two project leads leaving during the intervention phase. The major constraint to implementation however was a lack of time, particularly for project leads that often performed multiple roles within the school. The Healthy School Co-ordinator role often seemed to be added onto existing workloads;

“A major sticking point with me is the time issue and time management and work-load issues. That is what has prevented me getting my teeth into it as much as I would have liked” (primary school project lead)

Unanticipated positive outcomes emerged including improved communication between catering teams and teaching staff. Two schools described how there had been previously minimal contact between catering and teaching staff but the project had provided “*a meeting point*” and they were now “*communicating all the time*”. The project also provided a catalyst for action on school food generally. Prior to involvement many schools had been aware of the need for healthy eating but not taken action; “*the ball has started rolling and this is something that needs to continue*” (primary school project lead).

Discussion

This study recruited five primary and five secondary Leeds schools to implement a series of interventions to improve FSM uptake. By examining this process and working parties’ perceptions, key learnings emerge on how to affect change in school nutritional policies. Many concur with existing evidence but this study adds further insight.

Recognising the uniqueness and complexity of schools, each with their own practices, cultures and policies, is critical and concurs with earlier studies (Gleddie, 2012; Coleman *et al.*, 2012; Orme *et al.*, 2013; Wang and Stewart, 2013). Individualised school action plans are a practical way of acknowledging this diversity as, whilst they provide a clear framework for

action, they also give schools the flexibility to adapt them to their own circumstances. Initiating a forum within each school to discuss, agree and implement changes is an effective mechanism for implementing nutritional-related initiatives and policies. In this study the forums were called working parties, in others committees (Gleddie, 2012; Coleman *et al.*, 2012) or SNAGs (Orme *et al.*, 2013). Despite the name there is consensus that membership needs to include representatives from catering and teaching staff along with a senior staff member to champion the cause internally (Gleddie, 2012; Coleman *et al.*, 2012; Orme *et al.*, 2013). In this study a school administrator gave insight into school's FSM uptake levels. Involving a research team member who provided access to resources and links to other schools for sharing learnings proved valuable, concurring with others (Orme *et al.*, 2013; Wang and Stewart, 2013). Furthermore a consultative, rather than a directive, approach was helpful with members needing to feel validated and able to contribute to making changes.

Awareness of an issue is necessary for schools to take action (Gleddie, 2012) and this study found most working parties were initially unaware of the existence of stigma or low FSM uptake in their schools. Once working parties became aware of low FSM uptake (due to the provision of local comparison data) they were interested and generally willing to tackle the issue. Examining the process of claiming for a FSM served as a catalyst for action, revealing to working parties that anonymity was not guaranteed in their school. They were also motivated by the knowledge, established from the questionnaires, that some pupils and parents felt uncomfortable claiming for a FSM. This would suggest that there is a need for FSM uptake data by school, to be routinely collected in order to identify levels of uptake. In addition, schools need to obtain feedback from pupils and parents as to how they feel claiming for a FSM. These pieces of information could encourage schools, outside of a research project, to act on the issue of FSM uptake.

Giving the working parties ownership of the process and flexibility in how they developed and implemented the action plans resulted in many creative ways of tackling the issues. It was anticipated that as schools had generated ideas themselves, tailored to their needs, interventions would be more likely to be implemented.

Interventions were designed based on input from a key stakeholder workshop and exploratory qualitative research and the majority were accepted and implemented by working parties. All schools except two resisted amending their behavioural or anti-bullying policies to include

FSMs or a lack of affluence as a reason for bullying. Bullying is a sensitive issue for schools with the word alone carrying negative connotations. A key learning from this is that researchers need to be receptive to working parties' opinions - attempting to implement a change that schools perceive as unnecessary is ineffective.

A lack of staff time emerges as a key barrier to implementing change in this study and others (Coleman *et al.*, 2012; Orme *et al.*, 2013). In one study it was ensured that staff had protected time to ensure their active participation whereas this study did not (Gleddie, 2012). In this study a lack of time resulted in some key staff, particularly Healthy School Co-ordinators, not able to give the project sufficient attention due to competing responsibilities. The pace of change was therefore slower than the research team originally anticipated. In addition, the time period of one academic year was too short for the interventions to have a substantial impact in changing pupil behaviour. In schools there are short windows of opportunity to operate within and in some recruitment, setting up working parties, examining current claiming processes and conducting questionnaires, took up to eight months leaving insufficient time for implementation and evaluation. This concurs with other research (Coleman *et al.*, 2012; Orme *et al.*, 2013).

Active pupil involvement in the process was limited. Working parties consulted with them during the audit but their participation in implementation fell short of the call for pupils to be involved in a 'dynamic, democratic way' (Orme *et al.*, 2013). Reasons for this lack of involvement cannot be stated definitively but could relate to school culture or short time-scales. It was identified that schools can struggle to find age-appropriate ways of involving pupils (Orme *et al.*, 2013) and, given the sensitive nature of the topic, this could have been an issue in this study. Parental feedback was used to design the interventions but their input in terms of implementation was minor.

This study found that in the majority of schools, opportunities to identify pupils claiming for a FSM existed. In all primary and those secondary schools with cashless systems these opportunities tended to be fairly limited and, once working parties had reflected on current claiming processes, steps could be taken to implement alternative processes. In secondary schools with cash payment systems, pupils claiming for FSMs could still be identified despite adjustments to processes, suggesting cashless systems are necessary to assure anonymity, concurring with the Child Poverty Action Group (Farthing, 2012).

The research project utilised a variety of methods to try and raise awareness of entitlement to FSMs and normalise claiming for it. These included written pieces, providing information and training to staff, identifying one member of staff as the key FSM contact in school and conducting lessons and assemblies on the topic for pupils. There are significant challenges however if parents are either illiterate or do not speak English - the diversity of parental backgrounds meant it was not possible to produce written pieces in every language spoken. Whilst older pupils could raise the issue of claiming for a FSM with their parents and translate pieces of communication, parents still need to claim themselves. Ways of effectively engaging with more marginalised parents need further exploration. One potential model could be to train lay people as 'champions' to liaise with other parents from their community. In the health and social care sector this has been seen as an effective way of reaching and communicating with marginalised groups (Woodall *et al.*, 2012).

Since this research was conducted universal FSMs for infants (Key Stage 1) have been made available in English state schools (School Food Plan, 2014). The authors welcome this policy change anticipating school meal uptake will increase both amongst pupils who previously were entitled to a FSM and those who paid (Kitchen *et al.*, 2013), albeit not to 100% (Colquhoun *et al.*, 2008). Eating a school meal rather than a packed lunch could become normalised with pupils used to eating a school meal as an infant continuing to do so in Key Stage 2. Levels of stigma tend to be lower in primary schools than secondary schools (Sahota *et al.*, 2013) but this policy should ensure this is further minimised in Key Stage 1. To ensure maximum uptake schools need to ensure meals of a high quality are provided in a pleasant dining environment, with minimal queuing as, even if meals are free, pupils will switch to packed lunches if these conditions are not met (Sahota *et al.*, 2013). One impact of this policy is that schools and benefit services will need to engage effectively with parents as children make the transition into Key Stage 2, to ensure all those entitled to a FSM have claimed. From Key Stage 2 onwards the issues discussed throughout this paper remain and as such the interventions trialled remain valid.

Limitations to the research include that it was not possible to hold a focus group or interviews with all members of the working party. It would have been useful to compare perceptions by stakeholder type. It would also be useful to have had a longer-term follow up to evaluate whether the interventions became embedded. All participating schools had high levels of

FSM entitlement and this may have affected the perceived acceptability of the interventions and staff receptiveness to the project.

A positive consequence of the study was improved communication between different school departments. Examples of caterers, administration and teaching staff working together to address the issue of low FSM uptake were evident. Some felt it triggered a cultural shift that would enable other nutrition related improvements to be made. A key output is the development of the Leeds FSM Tool-Kit providing free information and resources to schools outside the study aiming to increase their uptake. It encourages them to follow the change process utilised in this study and choose the most appropriate interventions for their circumstances. The study's results also contributed to Leeds City Council instigating a School Food Ambassadors programme whereby elected pupils are empowered to make positive changes to their school food and dining environment. More information on both initiatives is available at Leeds City Council's family information website (Leeds City Council, 2014)

Future research to improve generalisability includes replicating the study in a wider range of schools including those with a low FSM entitlement, where stigma is potentially more of an issue (Sahota *et al.*, 2013). Developing a validated measure of stigma would assist in determining the significance of the problem across England and how it varies according to factors such as payment systems, school culture and entitlement levels. Evaluation of the impact of the interventions in the long-term would be beneficial as would exploring the potential role of social media.

Conclusion

This study found that the interventions designed to increase FSM uptake were perceived as acceptable to schools with the majority implemented. The process of change utilising school working parties, examining current processes including pupil and parent questionnaires and individualised action plans with support provided by the research team was effective. The key challenge is how to increase awareness of the issue of FSM uptake so schools start the process of investigating the need for change without the input of a research study. Having a designated contact in schools with dedicated time would be beneficial. Future projects need to investigate how to involve pupils more actively in their school food policies and how to engage with parents so improvements in school food impact on healthy eating in the home.

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Figure 1: The intervention process

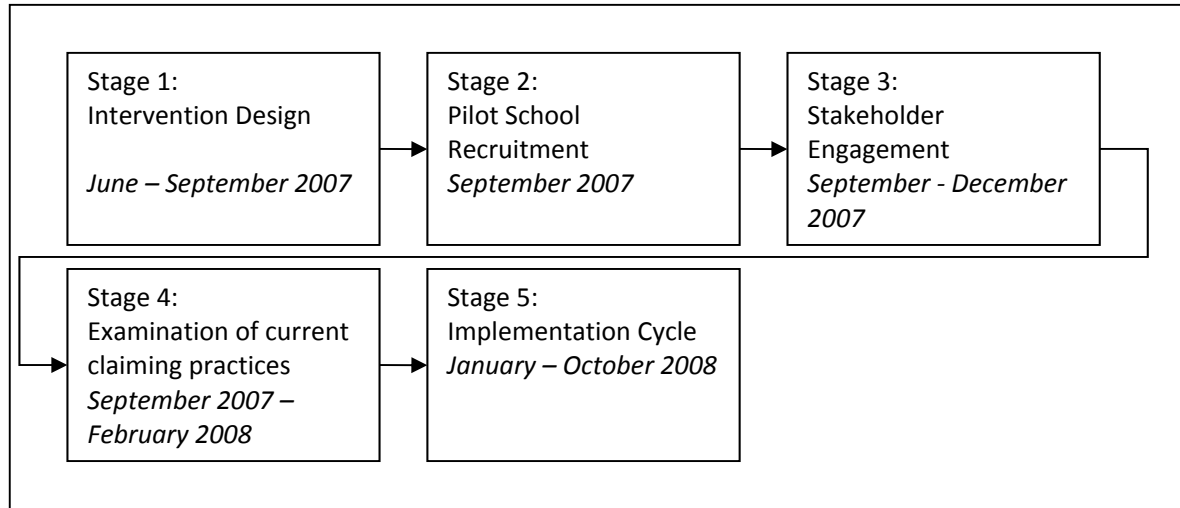


Table 1: Intervention phase evaluation methods

Method	Frequency of data collection	Primary School Participants (n)	Secondary School Participants (n)	Data Collected
Parent questionnaires	Pre and post intervention	Pre; Year 5 parents (n=78) Post; Year 6 parents – same individuals as pre (n=52)	Pre; Year 8 parents (n=124) Post; Year 9 parents – same individuals as pre (n=79)	All participants - lunch choice, reason why, opinions of school food, dining room, suggestions for improvement. Those entitled to FSM also completed questions re: uptake, reasons why, suggested improvements to process and feelings about claiming.
Pupil questionnaires	Pre and post intervention	Pre; Year 5 pupils (n=227) Post; Year 6 pupils – same individuals as pre (n=226)	Pre; Year 8 pupils (n=527) Post; Year 9 pupils - same individuals as pre (n=528)	All secondary school pupils – as per parents (see above). No primary school pupils were asked about FSM claiming as lack awareness of entitlement.
School meal uptake data	Weekly throughout intervention	All schools (n=5)	All schools (n=5)	Free and paid school meal percentage uptake.

School working party meeting notes	Monthly	All schools (n=5)	All schools (n=5)	Notes on process of implementation and acceptability
Individualised Action Plans	Throughout intervention	All schools (n=5)	All schools (n=5)	Progress on current practice and interventions. Actions taken / planned, timings, responsibility and support provided.
School working party focus groups / interviews	Post-intervention	All working parties (n=5)	All working parties (n=5)	Views on interventions, perceived acceptability and the process of implementation

Table 2: Characteristics of participating schools

School	% BME pupils	Number of pupils not taking their FSM entitlement	Payment System
Primary School (PS) 1	3.6	38	N/A
PS2	95.1	48	N/A
PS3	4.7	50	N/A
PS4	5.9	49	N/A
PS5	50	45	N/A
Secondary School (SS) 1	5.6	107	Cash
SS2	60.3	Unconfirmed	Cashless
SS3	28.9	173	Cash
SS4	60.1	128	Cashless
SS5	5.6	119	Cash

Table 3: Interventions to minimise discrimination

Intervention	Description	Schools implementing the intervention (n)
Designated FSM contact	Staff member identified as key FSM contact in school for parents or pupils. Provided with information to answer any potential queries.	Primary (n=5), secondary (n=5)
Amending anti-bullying policy	Incorporate claiming for FSM or lack of money into school anti-bullying policy.	Primary (n=1), secondary (n=1)
Assembly	Staff member to deliver assembly on the 'History of School Meals' highlighting FSM.	Primary (n=5), secondary (n=4)
Lesson	Lesson on food choice, healthy diet and FSMs to be incorporated into the curriculum.	Primary (n=5), secondary (n=4)

Table 4: Interventions to maximise FSM awareness

Intervention	Information	Schools implementing the intervention (n)
Postcards and letters to all parents	FSM entitlement criteria, school FSM contact, types of meals available.	Primary (n=5), secondary (n=5)
In school posters	Meal combinations available for allowance. School FSM contact.	Primary (n=5), secondary (n=5)
School events	Promote FSM availability	A selection of schools – exact number unconfirmed
Newsletters, websites, texts	Promote FSM availability	A selection of schools – exact number unconfirmed
Letter to parents not taking up their entitlement	Information on how to claim	Primary (n=3), secondary (n=1)