

A qualitative exploration of stakeholder perspectives on a school-based multi-component health promotion nutrition programme

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Abstract

Background: *Food for Fitness* is an on-going multi-component health promotion programme, delivered in primary and secondary schools by community nutrition assistants. The programme uses nutritional interventions aimed at promoting healthier eating practices for children. This service evaluation investigated the receipt and delivery of the programme, as perceived by local stakeholders who had experienced and administered the service.

Method: Semi-structured interviews and focus groups were carried out with three key stakeholder groups: health professionals ($n = 9$); school teachers ($n = 10$); and senior health officials ($n = 3$). Qualitative data was transcribed verbatim and received thematic analysis with deductive and inductive processes.

Results: Stakeholders reported that the programme contributed to the development of food education and healthy eating practices of children in the local area. Stakeholders thought the main concern was the limited capacity and size of the service. They described problems with long-term sustainability in supporting schools with maintaining nutritional interventions, highlighting issues regarding contact, planning and organisation of several interventions.

Conclusions: The findings of the service evaluation inform service management, organisation and ground-level delivery. The use of stakeholder opinion provided contextualised information on the factors which impact on the implementation of the programme. The richness of the qualitative results can guide future planning and provision for similar health promotion nutrition programmes delivered in the school environment.

Introduction

Schools are suggested to be an ideal setting for promoting health (Warwick *et al.*, 2005; Rana & Alvaro, 2010); offering infrastructure, curricula, policies and with a physical environment highly suited to influencing child health and development (Aranceta *et al.*, 2009; Brown & Summerbell, 2009). As a setting, schools hold real potential for promoting healthy behaviours early in life (Vengeler & Fitzgerald, 2005; Stewart-Brown, 2006). Changes in curriculum, policies and standards have been recommended with regard to promoting healthy eating in UK schools (Ofsted, 2006; Food Standards Agency, 2007). However, school-based programmes involving nutritional interventions are not without problems: issues relating to design, implementation, dissemination, evaluation and sustainability have been cited as barriers to effective delivery (Parker & Fox, 2001; Levine *et al.*, 2002; Bauer *et al.*, 2006; Franks *et al.*, 2007; Hammerschmidt *et al.* 2011).

For interventions to run successfully in the school environment, inter-agency partnership, leadership and collaborative thinking may be required by all stakeholder groups (Briggs *et al.*, 2010; Della Torre *et al.*, 2010; Mathews *et al.*, 2010). For children to adopt desirable health and lifestyle behaviours at school, all sectors - particularly public health practitioners and school staff - need to 'play a part' (Bauer *et al.*, 2006). Furthermore, the involvement of these stakeholders is invaluable to produce appropriate and practical ideas, as well as providing a general sense of feasibility to interventions (Della Torre *et al.*, 2010). Building coalitions or alliances in health promotion is a relatively established mechanism for successful health action (Butterfoss *et al.*, 2006). Even where collaboration is possible, each school setting needs to be considered carefully, as different schools bring unique challenges relating to resources, status, previous experiences and capabilities (Power *et al.*, 2010). As

such, health-promotion (or disease prevention) interventions may benefit from adopting a multi-faceted and co-ordinated ‘whole-school’ approach (Bauer *et al.*, 2006; Food Standards Agency, 2007). This model follows the ecological understanding for prevention of childhood obesity in the school environment (Lee *et al.*, 2010). The practicalities of implementing public health interventions of this nature, and a clearer understanding of *real-life* projects is necessary for policy formation, evidence-based decision making, commissioning processes and future research in this field (Mendelson, 2007; Nutbeam & Boxall, 2008).

Background: the ‘Food for Fitness’ Team

In North East Lincolnshire, 26 residential districts were classified in the top 10% of the most deprived populated areas across England in 2007 (Department of Communities and Local Government, 2008). The *Food for Fitness* (FFF) project was originally designed by a National Health Service (NHS) Community Nutrition and Dietetic department and initiated using the ‘Neighbourhood Renewal Fund’ received in 2006-08. Currently, the service remains operational, having been centrally commissioned by a regional Primary Care Organisation (PCO) since 2008. Project workers were specifically employed to engage with local children and their parents in both primary and secondary school settings. The FFF programme team comprised of two part-time paid lay workers, classified as community nutrition assistants (CNAs) (Kennedy *et al.*, 2008), and one part-time paid administrator. The project adopted a multi-practitioner approach to the design and delivery of healthy eating interventions, involving: health professionals (HPs - public health nutritionists, health promotion specialists, local authority officers); senior health officials (SHOs - management level NHS and local authority personnel); and school teachers (STs - head teachers, food

teachers, health co-coordinators and teaching assistants). Interventions were designed to promote changes in the school environment: curriculum development, policy formation and increasing the accessibility for healthy food choices. Established health promotion theories of ‘organisational change’ and ‘capacity building’ (Hawe *et al.* 1998; Heward *et al.* 2007) formed the theoretical basis of the programme. Specifically, the programme intended to increase healthier eating practices for school children by developing food knowledge, food skills (growing, cooking and hygiene), self-confidence/self-esteem and providing equipment with specialist advice on school services for catering (see Table 1 for FFF programme details). After consultation with school staff, the CNAs delivered the most appropriate interventions within the programme, to suit the capabilities of each school.

This article highlights a service evaluation which examined stakeholders’ perceptions of the FFF programme, specifically: 1) *Programme receipt*: impact on teaching children and engaging with parents; 2) *Programme delivery and provision*: management, organisation, quality and availability of the service. The authors were asked by the regional PCO to perform a qualitative evaluation with the emphasis on *how* and *why* this programme contributed to their public health services.

‘Stakeholders’ (participants, community members, health workers, policy makers etc.) can be valuable to evaluate suitable programme implementation and progress in *real-life* environments (Swinburn *et al.*, 2005; Sallis & Glanz, 2009; Summerbell *et al.*, 2009; Chan & Woo, 2010). As such, stakeholder involvement can be a useful alternative for decision making in large population-based situations, when more traditional forms of research struggle to provide relevance and application (Swinburn *et al.*, 2005; Sallis & Glanz, 2009). In contrast to the ‘yes/no’ or ‘how much’ answers provided by quantitative measures, a qualitative inquiry would provide depth;

drawing out understandings and perceptions, which explores the features of the programme (Centre for Reviews and Dissemination, 2009). Indeed, the use of qualitative research in nutrition and dietetics is becoming recognised as a 'vital part' to the decision making processes assisting with health policy and practice development (Swift & Tischler, 2010).

Methods

Participants and Procedure

A purposive sample of stakeholders was selected in collaboration with the CNAs responsible for the FFF programme. Twenty six stakeholders were approached by e-mail invitation (GM), which explained the nature of the research and 22 (85%) agreed to take part. Each person completed a consent form after having read participant information sheets and having had an opportunity to ask any questions. Ethical approval was granted by the School of Sport, Coaching and Exercise Science Ethics Committee at the University of Lincoln, UK. Formal NHS ethics was not required as this project was considered to be a 'service evaluation' (NPSA, 2010). All information was collected during November and December of 2009. Semi-structured focus groups (2) and face-to-face interviews (13) were conducted with participants from three stakeholder groups: HPs ($n = 9$) participated in two focus groups ($n = 4$ & 5); STs ($n = 10$) who participated in one-to-one interviews; and SHOs ($n = 3$) who also participated in one-to-one interviews. The focus groups and interviews were conducted at mutually convenient locations and were digitally recorded with support from additional field notes (GM and HR). For pragmatic reasons, the service evaluation team decided to request the HPs involvement in focus groups because of the convenience of gathering people together at a local office workplace.

In devising the areas for discussion within the focus groups and interviews, a line of questioning was selected over the use of specific topic guides, as this approach has been argued to develop greater consistency when questioning but also improve future analysis (Kruger & Casey, 2000). The questions asked were designed to answer ‘concept-driven’ (Fade & Swift 2010) research questions set by the PCO, exploring: 1) *programme receipt* (e.g., “what are the benefits/costs of delivering this type of service?”, and “To what extent do you feel the programme is good value for money?”), and 2) *programme delivery and provision* (e.g., “What aspects of the FFF programme did you feel were effective/ineffective?” and “What are your feelings on the way the programme was administered/managed?”). It was ensured that the questions remained open to encourage explanations and foster discussion, rather than generate insufficient responses (Kruger & Casey, 2000) and, in this respect, probes and follow-up questions were also variable between interviews. By keeping the structure relatively open, a forum was provided for participants to discuss those issues they viewed as important (Bryman, 2008).

Data Analysis

All recordings were listened to for familiarisation, transcribed verbatim and analysed using a deductive and inductive thematic processes at different stages (RK and GM). A theoretical approach allowed for the authors to code for the specific research questions (Braun & Clarke, 2006), as requested by the PCO, allowing more detailed analysis on these particular aspects: 1) *programme receipt* and; 2) *programme delivery and provision*. Initially the line of questioning was therefore considered as a deductive or conceptual coding strategy forming an organisational framework for the

process (Bradley *et al.* 2007; Po'e *et al.* 2010). Data were then given open codes (Strauss *et al.*, 1987), which were then arranged in relation to which of the key questions they concerned provided 'meaning units' (Tesch, 1990) for either: 'receipt' or 'delivery /provision'. Following this, the open codings were inductively analysed into tentative categories and submitted to a process of constant comparison (Strauss & Corbin, 1998): to establish that the categories differed significantly from each other, and that themes which emerged were both embodied by the quotes within them, as well as being internally consistent (Lincoln & Guba, 1985). Interpretative coding (latent) was performed (RK and GM) throughout the analysis stages to examine stakeholder ideas, assumptions and conceptualisations about the programme (Braun & Clarke, 2006; Fade & Swift 2010). Processes of member checking (submitting the draft analysis to the stakeholders for review: no changes were suggested/made, only clarification was sought), inter-rater checking (between authors, regarding the open coding process), consensus validation (between RK and GM, regarding the organisation of themes) and peer debrief (between the authors and other stakeholders, not used in the original data collection) were all employed (Cohen *et al.*, 2000). Collaboration during the analysis supported data validation and reliability in the confirmation of the final analysis (Harris *et al.*, 2009).

Results

The following main themes from the conceptual categories are presented in bold with associated sub-themes outlined in-text with italic (Table 2). Where quotes are

provided, the speaker's reference is given in the form [Stakeholder, Interview/FG, participant number]. Any name presented is fictitious to preserve anonymity.

1) Programme Receipt

A broad range of benefits and impacts were identified by participants in the interviews and focus groups. Stakeholders noted that behaviour change was perhaps the most ambitious goal of the project, and raising awareness, facilitating informed choices and increasing the confidence of children to cook for themselves (and cook healthy meals) were all important contributions of the programme. STs were keen to report the influence that the FFF programme had on their particular school including the problems and issues which they had experienced.

Lessons transfer home

This theme denoted that key ideas and lessons from the FFF training could be 'taken home' by the programme's recipients: *developing healthy cooking practices*.

Stakeholders were explicitly aware of this impact:

Hopefully the children are working at home and creating their own sandwiches... We're hoping, and I know this is happening, that parents and children are working together... to carry on what they've learned and extend it further, at home [HP, Focus group, 05], and:

Certainly the feedback we're getting from parents is that they are actually trying the recipes.... Whereas they wouldn't have attempted them before. They [the parents] have gone away in their own time, made them and reported back: 'I made those turkey burgers, they [the children] really liked them' [HP, Focus Group, 04].

A further theme is whether the programme is *getting through to children and parents*. This ‘transfer’ however, cannot be assumed to occur ‘naturally’, and appears to be facilitated by involving the parents in the workshops:

Where it could fall down is that when they get home, probably in some cases it isn’t necessarily continued. I think we need to do more work educating parents along those lines [HP, Focus Group, 04].

Synergistic benefits

This theme reflected the effects of the programme upon supplementing other school-based programmes, which were currently active in the regional school system by *reinforcing/catalysing other health initiatives*:

So the fact that we’ve been able to embed the healthy eating stuff along with the physical-activity stuff and the emotional well-being stuff, so that they can work together and support other projects has been hugely beneficial [HP, Focus Group, 05].

In particular, the STs described that the FFF programme contributed to the school environment by *enhancing curriculum/teaching*:

We never have any money for extra things, this came along, nobody said to me can you pay for the fruit, nobody said can we pay for the breakfast, nobody said anything and it was all delivered to me which made a huge impact on my curriculum, so that was great [ST, Interview, 13].

STs felt that many *unexpected/indirect benefits* were shown by the process of training school staff and volunteers:

Training and supporting the teachers, or whoever is delivering a key skill, so the school can carry on doing something, so it's not a direct benefit, more indirect [HP, Focus Group, 12].

The various 'knock-on' effects reported from the FFF programme implementation at schools were as follows: increased attendance at school (as a result of a breakfast club), at after-school clubs, improved tuck-shop usage, the development of gardening skills (especially in children who had previously refused to engage) and even the decision of some children to study a GCSE Food course, taught at secondary schools.

Basic food education

This theme reported the educational elements, parts of the FFF programme, which provided development of curricula for children to *realise the impact of food choices*. In particular, the basic food education delivery promoted an *understanding where food comes from*, which was well received by STs:

You see the whole process of planting it, growing it, helping it grow.

Then to see them harvested at the end is a big benefit. Then you talk to the Year 6 kids, who haven't done anything like this, and you say 'Where do you get your food from?' and all of them say 'The supermarket', pretty much... [ST, Interview, 21].

To several STs and HPs the novelty of the practical delivery was a welcome inclusion to teaching, particularly in schools which had limited or non-existent food or healthy eating education and/or policies. Both STs and HPs explained because of the low level of food knowledge children in the local area have, even *recognising/trying new foods* was a novel and exciting experience:

Recognising what a piece of fruit is, or a vegetable, we've seen that; a kid saying 'What's that?' Not knowing what it is, finding out and trying it [HP, Focus Group, 07].

Opportunities to improve social skills and life-skills

Stakeholders outlined noticeable occasions where opportunities to develop social skills and life-skills existed. At the core of the experience was the opportunity for *learning to work in team/mix with others*. STs felt that this contributed to the development of other food related skills such as *basic table manners*:

We actually sat and had breakfast together so they actually learned to sit and talk to each other. You probably think that's a stupid thing but for these kids that usually sit with breakfast on their knee, if they're lucky enough to have breakfast, the learning and social interaction as well as the healthy food, is a very good benefit [ST, Interview, 13].

This type of teaching was thought to generate a 'sense of fun' and shared learning *creating a community feel*. This social-learning environment was thought to promote other behaviour related effects:

Confidence; actual skills, practical skills that they realise they can put in place, the confidence to try and cook something, and realise that it's not as difficult as they first thought [HP, Focus Group, 11].

Lasting benefits

Both SHOs and STs recognised that the FFF programme often leaves lasting impressions; with the schools having *firmer foundations to build from*. For example:

One of the things they helped us get off the ground was the healthy tuck shop. They came in and worked with the children and made healthy snacks and sold those and that's certainly one aspect that they did which is still continuing, and it's really popular and really successful [ST, Interview, 17], and:

They train up teaching assistants or teachers in the school, who are then expected to deliver the sessions once *Food for Fitness* have left. This is part of the contract that's signed up with the school, it's not a one-off cookery course, the toolkits and the lesson plans are there that people can carry on. Same with the growing clubs. [SHO, Interview, 01].

During the time spent at several schools, the CNAs had *trained and equipped school staff* to deliver food and healthy eating education and *advised on appropriate catering* services for children to access.

Perceptions of Value

Participants generally felt that the FFF programme was good value for public money and an *essential service* in the local area given the situation of many schools not offering reasonable food education:

When we live in such a poor area, if nobody was to come along and introduce these children to various meals/cooking skills, they're not going to get them from school; [It's] public money well spent [ST,

Interview, 13], and:

I think it's absolutely invaluable...with the diet of the nation at the minute, and the fact very few people cook at home... ..I know from

teaching, what little skills the children have. It's absolutely unbelievable what they don't know... [ST, Interview, 18].

It was regarded however, that this health promotion programme was only really '*starting to touch the surface*' of the many issues faced in this area regarding poor food knowledge and unhealthy eating practices. There was some anxiety shown on the possible neglect in this type of provision with SHOs:

The long-term issues we're going to end up with... ...is going to be very significant if we don't do anything. This would put a huge load onto future services. [SHO, Interview, 01].

2) Programme Provision and Delivery

Stakeholders provided key insight into the management of the FFF programme including suggestions on how to maximise the effectiveness of the programme in future. Teachers who had directly experienced the organisational efforts of the FFF team perceived that the service they received was, in their opinion, excellent in terms of actual session or event organisation. They did, however, perceive issues regarding availability, accessibility, timing of engagement and a lack of continued support from the FFF team. All stakeholders acknowledged that several mechanisms in schools and the FFF programme require specialist organisation and management for the purposes of quality delivery.

'Could become something special'

This theme reflected the programme's potential if given more time and a *longer planned trial* was developed. Stakeholders reported that such a programme would need to have a longer period of implementation in the local area:

Food for Fitness is well embedded in what we call the whole school approach ...it does sit with the Policy Development...with all the toolkits...all that big picture stuff... it is starting to have an impact. It's taken time to embed that cookery, basic food cookery, basic healthy eating... [HP, Focus Group, 05].

Both SHOs and HPs considered the FFF programme's potential in other related health promotion activities: *embedding of the programme* elsewhere. All stakeholders firmly believe that there is a *skills vacuum that needs to be filled* in-terms of food knowledge and skills in the local area, not just in schools targeted by the FFF programme; but the wider community.

'Good ideas: well executed'

This theme captured STs' perceptions that the classroom session content and delivery was invariably of a high standard using *skilled and knowledgeable staff* with a *practical and applied approach*:

Time management, communication, and all that was really, really good [ST, Interview, 16], and:

All the booklets were organised. Very well managed and throughout the session she was conscious of the time...she could shorten things if needs be [ST, Interview, 15].

Further to this was the recognition of the *multiple learning styles involved* in the delivery of lessons:

It's very differentiated to our children's needs [ST, Interview, 14].

Problems encountered

The STs perceived several problems and glitches, many of which revolved around the *timing of contact* with schools. For example, difficulty accessing the team and the timing of engagement with teachers seemed unsuitable and pressured:

It was a bit short notice. I got a phone call and they said: ‘This is what we can offer and would you like this, this and this?’ and I think if I’d had a bit more notice about that I could have planned that in may be a bit more carefully [ST, Interview, 17].

The most notable aspect of managerial matters was the *lack of extended school support* for schools hosting interventions:

The problem was it was only for a very limited period of time and the difficulty we’ve had is continuing that in school [ST, Interview, 17].

This lack of sustained support leaves the schools ‘wanting more’, promoting a demand for a continuation in service. Both SHOs and HPs identified the *limited staff and facilities* as a restrictive capacity issue:

Whether they have got a facility appropriate to what they would actually require...at the moment it does feel like a Cinderella service in that...it’s operating from a tiny kitchen and very much on goodwill from the setting they’re in [HP, Focus group, 11].

They are a very small team. If you look at the work they’ve done in 4 years. I know that Victoria does support them tremendously and they feedback to her exactly how things are progressing, but it’s only a little team [SHO, Interview, 02].

Organisational issues

Entering and delivering in schools appeared to have inherent difficulties regarding *class organisation and timing*, for example:

In school, you're going to struggle with teachers to actually maintain that level of 'doing' once a term [ST, Interview, 15], and:

They couldn't have done it without the teachers being there because the children were divided into groups and... it was very apparent to me you needed one adult at each table with the children [ST, Interview, 16], and:

The only criticism I have is that it did go on rather late each time, but that was probably because of its being successful and they all wanted to try everything and we had a meeting, we all sat around the table at the end and ate everything but there was many evenings where we started at quarter past three and didn't finish till six [ST, Interview, 18].

Other *inefficient planning processes* were consistently highlighted by STs.

Schools were willing to aid this managerial process:

[The programme would benefit from] ...greater time planning, with our involvement and the children's involvement [ST, Interview, 15].

These sentiments were reinforced by other respondents and a more consultative approach with school staff may be one way of significantly improving the management of the programme.

Securing evidence-based work

This theme reflected the view of an ethically and morally sound programme which both SHOs and STs thought to be *acceptable for the school environment*. Indeed, emphasis was placed upon this aspect before engaging with the school system to provide quality assurances:

[Quality assurances] can guide on contracts with schools, health and safety issues... they're an incredibly important aspect with food. It ensures they are going in with consent into the school environment

[SHO, Interview, 02].

Furthermore, the assurance that healthy eating messages and skills are delivered in evidence-based ways was thought to be of utmost importance for the *clear consistent messages* in training and advice:

They've got health promotion models working and food and nutrition: evidence-based practice [HP, Focus Group, 04].

Discussion

This service evaluation generated feedback on the integration of the FFF programme in school settings from three different stakeholder groups. The programme was generally perceived as a good service by STs and 'vital' or 'essential' by HPs and SHOs. The following discussion generates programme recommendations for future consideration based the findings and the relevant research literature in the area:

1) Programme Receipt

From the STs point of view, services of this type in the local area seemed to be unique and incredibly useful, particularly to schools which did not have any formal nutrition lessons, food education resources and simply the ability to deliver similar activities for school children (see Table 1 for programme components). Importantly the contribution of the FFF programme for schools is complimentary to the UK governments National Healthy School Standard in England. This requires schools to meet criteria for a 'healthy eating theme' which stretches further than classroom education, with criteria relating to the improvement of the emotional, physical and

learning environment that a school provides (Department of Health, 2005; Warwick *et al.*, 2005). For these reasons the FFF programme is desirable, and the FFF team workers are beginning to generate a real ‘critical mass’ (Whitelaw *et al.*, 2006) given the experience and understanding regarding the implementation and delivery of interventions within local schools. In many ways this was a fundamental part to the capacity building process which is occurs in large population-based health promotion programmes (Hawe, *et al.*, 1997; Hawe *et al.*, 1998). On reflection of comments made by both SHOs and HPs, difficulties in the capacity building process will occur if the current service size remains the same: without the necessary facilities to develop consistent and sustainable access to support schools in the long-term. To adapt the FFF programme, the following procedural recommendations are made which attempt to assist the ground-level delivery and practice:

- Increase the CNA staff numbers, to potentially: 1) broaden the scope or the programme, to engage with more local schools; 2) re-establish contact, and provide further support schools with interventions currently running.
- Consider purpose built facilities and transportation methods. A large base should be sort to house more suitable food preparation, storage and utility areas to develop more time-efficient working practices and cater for the growing school demand.
- Develop further understandings on how schools can be become operational for implementing healthy eating

interventions (focus on the barriers and facilitators each school individually presents).

2) Programme Provision and Delivery

The findings indicate that despite some benefits to schools, the FFF programme brought organisational (planning inefficiencies) and managerial difficulties (sustainability) when implemented with schools (Table 2). For long-term success with multi-component health promotion programmes of this type there is a requirement for: 1) strong leadership at a strategic level (Barrett *et al.*, 2005; de Groot *et al.*, 2010), and; 2) efficient and purposeful partnerships between public health practitioners and school staff (Della Torre *et al.*, 2010; Mathews *et al.*, 2010; Power *et al.*, 2010). Certainly the FFF programme could be refined and developed further by enriching the communication and partnership working between the PCO, local authority and the school staff involved. Developing partnerships with schools is not straightforward and public health practitioners will need to gain familiarity with how a school operates (Franks *et al.*, 2007) and consider the environment carefully before implementation of nutrition programmes (Bauer *et al.*, 2006). Partnership and collaboration are key working principles outlined in White Papers published by both the current (Department of Health, 2010) and past (Department of Health, 2004) UK Governments. Based on the current findings, the following recommendations are made which aim to modify and assist the managerial aspects of the FFF programme:

- Appoint or designate a ‘leader’ for the programme to direct, manage and monitor progress and also install workforce efficiency and development procedures.
- Encourage mutual understandings between stakeholders, particularly on the contribution each makes towards the implementation of the programme. This may mean holding regular meetings and/or events to illustrate successful partnerships and collaborations.
- Focus on finding an agreeable approach between all stakeholders to allow schools to become self-sufficient and self-sustaining in the provision of interventions in the long-term.

Evaluation Reflections

This qualitative evaluation provided information on implementation of the FFF programme with an emphasis on stakeholder perspectives on the programme receipt and delivery (conceptual categories) on the request of a regional PCO. Under instructions from the PCO, the authors had to initially design the data analysis part of the service evaluation deductively (from an organisation framework) to answer specific research questions. There are weaknesses to the theoretical (deductive) approach, which revolve around the analysis being ‘analyst-driven’, and the data fitting a pre-conceived framework (Braun & Clarke, 2006). A fully inductive approach (data driven) would have provided an ‘open playing-field’ to the analysis without the confinement to the conceptual categories (Fade & Swift, 2010). Although this would enhance the richness

of the data; it would have compromised the service evaluation's focus and attention to the required research questions set at the beginning.

It was important to remain cognisant that this service evaluation focused on creating a detailed description of the perceptions of key stakeholders involved with the FFF programme. The evaluation is based on perceptions and not objective data. In addition, only perceptions of select stakeholders are included; omitting the experiences of the children and parents who received the service. Although this may seem like a neglected element, the service evaluation specifically required stakeholder groups who had experienced requesting and/or observing all of the service's interventions (Table 1). These participants could therefore critically appraise the broad implementation of the service. Child or parental perception would provide intervention specific opinion and feedback, which could be a consideration for further service development. The sample size could be argued to be relatively small, however this type of evaluation did not seek large sample sizes, but rather samples that are representative of the desired participant groups, and in this respect a large proportion of the FFF programme stakeholders were contained within the sample.

Conclusion

The main findings indicated that the FFF programme was well received by STs and enhanced the school environment for promoting healthy eating through curricula, policies and/or specific interventions. Descriptions by stakeholders highlighted a desirable service, with schools in the local area having a pressing need for this type of service with facilitating food education on site. In this respect, the FFF programme was unique and particularly beneficial to schools which had not been able to deliver any food or nutrition education. Although there were positive aspects described by the stakeholders, there was a concern regarding the limited size of this type of service and the ability of the programme to support and sustain nutritional interventions in schools

for the long-term. Furthermore, the effectiveness of delivery could also be increased by stronger leadership with firmer consultation and partnership working between public health practitioners and the school staff involved in the delivery of the programme. Like many nutrition programmes of the past (Parker & Fox, 2001; Levine, *et al.*, 2002; Bauer *et al.*, 2006; Franks *et al.*, 2007; Hammerschmidt *et al.* 2011) implementation of this type of multi-component nutrition programme can be difficult and time-consuming yet a key determinant of success is collaboration and strong inter-agency partnerships (Briggs *et al.*, 2010; Della Torre *et al.*, 2010; Mathews *et al.*, 2010). The approach of using stakeholder views has provided context specific information regarding the progress of a health promotion nutrition programme. The richness of the experiences illustrated by this qualitative investigation provided information on current receipt and provision of the FFF programme. The detailed findings have provided foundations to suggest recommendations to adapt aspects of programme management, organisation and ground-level delivery. These recommendations are likely to be applicable to other similar health promotion nutrition programmes operating in schools across the UK.

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Tables

Table 1. Programme components of the *Food for Fitness* Programme: 2008-2009

Cookery Courses

A course lasted four weeks and included delivery of healthy eating and food hygiene teaching education. Teachers, support staff and parents participated with children. The course entered the school curriculum at Key stage 1, 2, 3 & 4. Teachers were able to deliver the course without support after training. Seven schools participated with 378 recorded contacts.

Growing Clubs

Each school received training, funding and support to set-up, maintain and develop a small community garden. This produced fruit and vegetables which were chosen, planted, grown and eventually eaten by school pupils. Five schools participated with 183 recorded contacts.

Healthy Tuck shops

Initiation and support in the organisation and running of a 'tuck shop' which distributes healthy food. The schools were encouraged and trained to serve fruit and vegetable portions in fun ways. A school council was responsible for the running and business providing ownership to the project. Five schools participated with 2562 sales recorded.

Lunch box workshops

The workshops involved school pupils and their parents in the design of a 'well balanced' lunch box encouraging a healthy packed lunch. Recipes and small adult education sessions were administered during parent's evenings or after school events. Eight schools participated with 1421 recorded contacts.

Sandwich Competitions

Children were encouraged to design and make healthy sandwiches after educational sessions. These were judged informally during a school assembly with their parents present. General advice on healthy eating alongside food hygiene was part of this promotion to both parents and children. Two schools participated with 263 recorded contacts.

Whole School Assembly

This promotional element was used as a vehicle to recruit children, teachers and parents into contact with the service. Small demonstrations involving cookery skills and healthy eating messages were delivered. Twenty schools participated with 4496 recorded contacts.

*Components were implemented on the basis of a school's willingness and capability

Table 2. The ‘main themes’ and associated ‘sub-themes’ revealed by stakeholders for the deductive codes set for the FFF programme**PROGRAMME RECEIPT:**

Main themes	Lessons transfer home	Synergistic benefits	Food education elements	Opportunities to improve social skills and life-skills	Lasting benefits	Perception of value
<i>Sub-themes</i>	<i>Developing healthy cooking practices</i>	<i>Reinforcing/catalysing other health initiatives</i>	<i>Understanding where food comes from</i>	<i>Learning to work in teams/mix with others</i>	<i>Firmer foundations to build from</i>	<i>Essential service</i>
	<i>Getting through to children and parents</i>	<i>Enhancing curriculum/teaching</i>	<i>Recognising/trying new foods</i>	<i>Creating a community</i>	<i>Trained and equipped school staff</i>	<i>‘Starting to touching the surface’</i>
		<i>Unexpected/indirect benefits</i>	<i>Realise the impact of food choices</i>	<i>Basic table manners</i>	<i>Advised on appropriate catering</i>	

PROGRAMME PROVISION AND DELIVERY:

Main themes	‘Could become something special’	‘Good ideas: well executed’	Problems encountered	Organisational issues	Securing evidence-based practice
<i>Sub-themes</i>	<i>Longer planned trial</i>	<i>Skilled / knowledgeable staff</i>	<i>Timing of contact</i>	<i>Class organisation and timing</i>	<i>Acceptable for the school environment</i>
	<i>Embedding of the programme</i>	<i>Practical and applied approach</i>	<i>Lack of extended school support</i>	<i>Inefficient planning processes</i>	<i>Clear consistent messages</i>
	<i>Skills vacuum that needs to be filled</i>	<i>Multiple learning styles involved</i>	<i>Limited staff and facilities</i>		

