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## **Breakfast and Beyond: The Dietary, Social and Practical Impacts of a Universal Free School Breakfast Scheme in the North West of England, UK**

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*[Paper first received, 7 May 2014; in final form, 28 October 2014]*

**Abstract.** Breakfast is widely recognized as the most important meal of the day due to the numerous benefits associated with breakfast consumption including healthy weight maintenance and greater nutrient intake. In an effort to promote healthy breakfast habits, many schools provide breakfast to children before the start of the formal school day. At present, a government-supported scheme is being rolled out to increase the number of school breakfast clubs available to children across the UK; however, few research studies have investigated the impact of school breakfast provision within this country. The current study aimed to address this issue by gaging the views of parents, children and school staff on a universal free breakfast scheme in the North West of England, UK. Interviews revealed that school breakfast has the potential to influence outcomes beyond diet, including social relationships, punctuality and academic performance.

### **Introduction**

According to the Food and Agriculture Organization of the United Nations (2013), chronic hunger affected around one in eight people worldwide between 2011 and 2013. Ninety-eight percent of chronic hunger is situated in developing countries within Asia, Africa and Latin America, but hunger is also evident in the developed world. In the UK, over half a million children in 2012 were living in households that could not afford to feed them consistently. Furthermore, 93% of adults living in these households skipped meals to ensure that their children could eat (Poverty and Social Exclusion: UK, 2013).

The breakfast meal is particularly important within the context of food insecurity as breakfast is the meal most likely to be omitted when meals are skipped (Ramp-

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ersaud et al., 2009). This is concerning given that breakfast consumption has been associated with numerous benefits, including improvements in mood (Defeyter and Russo, 2013) and healthy weight maintenance (Sandercock et al., 2010), whilst breakfast skipping has been linked to increased unhealthy snack food consumption (Sjöberg et al., 2003) and declines in cognitive performance (Wesnes et al., 2003). Moreover, early breakfast consumption patterns can influence health outcomes into adulthood (Smith et al., 2010).

In an effort to counteract poor breakfast habits amongst children and adolescents many schools worldwide now run school breakfast clubs (Defeyter et al., 2010; Coe, 2013). In some cases children are also offered opportunities to partake in activities with peers, such as board games and sports, within breakfast clubs. Research into the effects of school breakfast on numerous health and behavioural outcomes has reported mixed results. In a study by Simpson et al. (2003), conducted in the UK, children who attended breakfast club reported intakes of vitamin C, vitamin D, protein, calcium, iron and zinc that were above recommended Reference Nutrient Intakes. Furthermore, when the data from children attending breakfast clubs were examined to include children's free school meal entitlement, analysis revealed that a greater number of children who were eligible for free school meals had nutrient intakes that were above the recommended levels for zinc, protein, vitamin D and vitamin C compared to children who were not entitled to free school meals. This suggests that breakfast club attendance may be particularly beneficial for those children who are 'in greatest need – i.e. pupils from lower socio-economic background as indicated by their eligibility for free school meals' (Simpson et al., 2003, p. 2). By contrast, in another UK-based study by Belderson et al. (2003) children who attended breakfast clubs reported significantly higher intakes of fat, saturated fat and salt and lower intakes of carbohydrate compared to those who did not attend breakfast clubs. In terms of behaviour, Bro et al. (1994) reported an increase in on-task behaviour of adolescents in the USA, following the implementation of school breakfast compared to when school breakfast was not available. However, UK-based research by Shemilt et al. (2004) found an association between breakfast club attendance and poorer teacher-reported behaviour. Furthermore, Shemilt et al. (2004) reported anecdotal evidence from school staff to suggest that children often arrived to class after breakfast club displaying boisterous behaviour and were consequently more difficult to settle at the start of the school day.

Despite mixed evidence surrounding the impact of school breakfast, the number of breakfast clubs available in schools has increased considerably in recent years, particularly in the UK (Harper et al., 2008). Moreover, the UK government recently announced it will invest £3.15 million during the next two years into setting up sustainable breakfast clubs in primary and secondary schools under the new *School Food Plan* (Dumbleby and Vincent, 2013). Released in January 2013, the *School Food Plan* sets out a number of recommendations to be addressed by policymakers, researchers and educators in order to improve food served in schools throughout the day. The Plan encourages a whole school approach to food through multiple means including the incorporation of food and nutrition within formal head teacher training; the development of new school food standards for all food served across the school day; sharing of best practice in addition to the implementation of almost 200 new breakfast clubs. However, UK-based research investigating the effectiveness of school breakfast clubs is scarce and the views of key stakeholders and users have rarely been considered. The current article sets out to address this dearth in the re-

search literature by presenting the findings from a qualitative evaluation of the pilot phase of a universal free primary school breakfast scheme in the North West of England, UK. The breakfast scheme was originally introduced into five primary schools (i.e. schools catering to children aged 4–11) by the local authority. Through the breakfast scheme, all children within the five pilot schools were offered a three-item breakfast free of charge at the start of each school day. Children had the choice of whether or not to eat the breakfast offered to them at school. The current study adopted a qualitative, semi-structured interview approach to determine the views of parents, children and school staff on the school breakfast scheme.

## Method

Data were collected from parents, children and school staff through semi-structured interviews. The semi-structured interview approach provided a format that allowed participants to speak freely without fear of embarrassment or criticism from fellow participants.

Parents, children and school staff were recruited from five schools based in the North West of England. The characteristics of the five participating schools are presented in Table 1.

All schools were based in predominantly white British areas (>90% white British), populated by a higher proportion of white British citizens than the proportion of white British across the North West of England (87%) and the whole of England (79.8%). Three of the five school areas contained a higher proportion of working-age state-benefit claimants (24–55%) than the proportion reported for the North West of England (19%) and the whole of England (15%). One school had a slightly higher proportion of state-benefit claimants than the proportion for the whole of England. The remaining school had a low proportion of individuals claiming key state benefits but a high percentage of children entitled to free school meals; however, this school had a considerable number of children who travelled to school from other areas, which possibly explains the discrepancy between the high percentage of chil-

**Table 1.** School characteristics and school area demographics.

Schools	School Demographics <sup>a</sup>					School Local Area Demographics <sup>b</sup>	
	Pupils on roll (N)	School Type	Pupils with special educational needs	Pupils with English as additional language	Pupils entitled to free school meals	All people of working age claiming a key benefit <sup>c</sup>	% white British
1	467	Community	13.9%	4.5%	48.7%	55%	90%
2	260	Voluntary Aided	7.3%	10.9%	25.5%	24%	95%
3	205	Community	12.2%	0%	62.8%	42%	95%
4	618	Community	4.9%	1.3%	8.4%	18%	98%
5	736	Community	12.1%	4.0%	51.4%	13%	94%

Notes: <sup>a</sup> Information taken from <<http://www.education.gov.uk>>; <sup>b</sup> Information taken from <<http://www.neighbourhood.statistics.gov.uk>>; <sup>c</sup> State benefits including Jobseekers Allowance; Incapacity Benefit or Severe Disablement Allowance; Disability Living Allowance; Income Support

dren entitled to free school meals and the low percentage of adults claiming key state benefits in the area surrounding the school.

At the time the interviews took place all five pilot schools had been offering school breakfast to children for approximately eight weeks. Four schools offered breakfast to children in the classroom at the very start of the school day and one school provided breakfast in the school hall for 20 minutes immediately prior to the start of the school day. Children in all schools were offered a three-item breakfast each day consisting of juice or water; a bread or cereal item such as a bagel or a cereal bar; and a dried, chopped or whole fresh fruit item.

Seventeen white British parents (16 females and one male) from the five participating schools were interviewed. All participating parents had at least one child who had access to breakfast in their school throughout the school week. Two male and 12 female school staff from the five participating schools took part in the current study. All participating staff were white British and were familiar with their school breakfast club so were able to give their views on it. Finally, 38 children (14 males and 24 females) were recruited from the five participating schools. Children were aged between 5 years 6 months and 11 years 4 months ( $M = 8$  years 6 months) and all had attended their school breakfast club during the eight weeks prior to the study taking place.

Three separate schedules of open-ended questions were developed for use with parents, school staff and children. Although the questions differed slightly between schedules to ensure that they were appropriate for the group being questioned, each schedule was designed to determine advantages and disadvantages of school breakfast. A digital Dictaphone was used to record all interviews to allow subsequent transcription to be conducted. Finally, NVivo (version 10) was utilized to store themes during data coding.

Following ethical approval from the University Ethics Committee, research information and opt-in consent forms were distributed. Individual interviews were arranged with all parents, children and school staff who opted to participate in the study. All interviews took place on school premises at a time most appropriate to each individual participant and their school.

On arriving for their interviews each participant was greeted by the interviewer and given a brief introduction to the research. Discussions were guided by interview schedules focusing on the potential positive and negative impacts of school breakfast and the changes that would occur if school breakfast was to end. Interviews lasted approximately 10–20 minutes and ended once all topics of interest had been exhausted and participants felt that they had nothing else to add to the discussion. Participants were verbally debriefed and were provided with printed debrief information to allow them to contact the researcher at a later date should the need arise.

Data were coded and analysed following published guidelines on thematic analysis (Braun and Clarke, 2006). Each transcript was read numerous times, then pertinent points referring to advantages and disadvantages of breakfast clubs were highlighted. The highlighted quotes were labelled to summarize the topics they referred to and similar topics were grouped together. Main themes and subthemes were developed from the topic groups and appropriate theme and subtheme headings were generated to summarize the data being presented. This inductive approach to thematic analysis was adopted as there is currently no published theoretical framework on breakfast clubs on which the current analysis could have been based. In line with recommendations set out in the research literature (Mounter and Noordegraaf,

2012) a second coder analysed just over 10% of the data (two parental interviews, two school staff interviews and four child interviews) to confirm the accuracy of the transcriptions against the audio recordings and to ensure that the themes generated by the first coder were representative of the data. The second coder confirmed that there was 100% agreement between the audio recordings and the corresponding transcriptions and there was 77% agreement between the first and second coding of the transcripts. The first and second coder discussed coding discrepancies before the final set of themes were decided.

## Findings

Discussions with parents, children and school staff resulted in the establishment of three key themes pertaining to school breakfast: provision of breakfast, positive start to the school day, and practical considerations.

### *Provision of Breakfast*

The provision of breakfast emerged as a predominant theme throughout interviews with parents, school staff and children. Children liked the variety of breakfast items made available to them through school breakfast and in some cases it allowed them to try foods that they would not be able to try at home:

‘It has some stuff that me and mummy don’t have’ (quote from child).

It became apparent that there was a definite need for the provision of school breakfast for some children as they were not provided with breakfast at home:

‘For those that don’t get it at home it’s brilliant because we’ve actually brought food in before now for children, odd children that don’t... say, mum’s too busy or they didn’t have time, so for them it’s fabulous’ (quote from school staff member).

However, it was clear that breakfast was not always skipped by children due to a lack of availability, as some parents pointed out that even when breakfast was readily available to children at home they did not always want to eat at the time breakfast was offered, but their children would happily eat breakfast at school:

‘One of my children doesn’t particularly... she’s not a morning eater so it’s great for her, especially because if everyone else is eating she wants to join in’ (quote from parent).

Moreover, it was noted that the breakfast served at school was more favourable than the breakfast made available to children at home:

‘He had a Fudge, then he had a Fredo, and then he had some sweet cigarettes, and obviously that was his breakfast and I’ve seen children before now eating crisps’ (quote from parent).

Children were also more willing to consume breakfast items at school that they refused at home:

‘The really, really good thing is they’ll drink milk here, they don’t like drinking... it has to be milkshake at home’ (quote from parent).



Despite school breakfast having a positive impact on children's breakfast habits, there were some concerns expressed among parents and school staff about the poor nutritional standards of some of the foods served:

'I do have some concerns about the amount of sugar and fat and things in some of the things we're giving them when you read the ingredients; even though we're giving them the best we can possibly get, I still think there's a bit too much sugar and fat in there' (quote from school staff member).

There were also concerns surrounding the large amount of food that children were able to consume across the school morning, as school breakfast was offered to all children regardless of whether they had eaten breakfast at home beforehand. As a result of their concerns some parents had started to implement ways to try to counteract the potential negative effects of excess breakfast consumption, such as weight gain:

'I do consciously give them a smaller portion of something and they also have a smaller lunch' (quote from parent).

Moreover, some school staff also noted that school breakfast was not utilized by all children as a means of obtaining a single breakfast meal where breakfast was not available at home. This caused some staff to question whether a universal breakfast scheme was wholly necessary, or whether targeted support for particular families would be better:

'I think they should look at maybe schools that require the full option and schools that don't need the full option, and look at the free school meal aspect and see whether all this food coming into our children is actually necessary' (quote from school staff member).

However, it was evident that schools would face considerable difficulty in trying to target breakfast provision, as some parents expressed disdain towards other parents who relied on school to give their children breakfast in the mornings:

'You get the ten percent of people here and I've heard them on TV: "right, oh we don't – this woman from [local school] – we don't have time to feed our kids breakfast in the morning", and I'm like hello you're their parents, where the hell are social services comes to mind!' (quote from parent).

### *Brief Discussion of 'Provision of Breakfast'*

Interviews suggested that breakfast clubs are an enjoyable and in some cases necessary form of breakfast provision that are particularly beneficial for children who do not get breakfast at home or are given breakfast of poor nutritional quality. Moreover, there is potential for breakfast clubs to have a positive impact on children's dietary habits. In discussing food preferences, Conner and Armitage proposed that 'people come to prefer what they are used to' (2002, p. 14) indicating that exposure to foods is an important facet in the development of food preferences. Wardle et al. (2003) supported this idea as they reported findings from an experimental study showing that exposure to foods can increase a child's preference for those foods. It could therefore be argued that by serving items such as fruit and milk for breakfast, breakfast clubs could be helping to reinforce preferential dietary habits.

Nevertheless, some staff and parents believed that children were being allowed to consume a large quantity of food across the school day and some of the foods served for breakfast were thought to be high in sugar and fat, which is a cause for concern. At the current time there is no preferred definition of exactly what constitutes breakfast, there are no guidelines on how much food children should be allowed to consume in breakfast clubs, and there are no recommendations that children should be discouraged from obtaining a second breakfast at school if they have already eaten at home. This lack of detail has important implications for policymakers in charge of implementing breakfast club guidelines and those responsible for serving breakfast in schools. Research has shown that from around the age of 5, children become more susceptible to external food cues such as available portion size and are less reliant on appetite alone to decide when to stop eating (Rolls et al., 2000); thus if children are offered an appetizing breakfast at school they may be prone to overeating simply because the food is available.

It was evident that some parents had tried to make allowances for the food their children were having at school breakfast by reducing portions of home-provided food, and in some cases parents tried to discourage their children from consuming school breakfast. Yet such methods have the potential to be counterproductive. Fisher and Birch (1999) found that when children's access to a palatable food is restricted while it is still visible, their behaviour is directed towards that food; thus parental restrictions could increase the salience of particular foods and consequently increase their desire for and consumption of those foods.

While targeted support could reduce the number of children having two breakfasts, the stigma associated with a reliance on school breakfast would make such targeted support extremely challenging. It could therefore be argued that while breakfast clubs have the potential to make a positive contribution to children's dietary habits, more work is needed to implement more detailed recommendations regarding the nutritional content and proportion of foods that should be made available to children through school breakfast clubs.

### *Positive Start to the School Day*

Parents, school staff and children described numerous ways in which school breakfast contributed to a positive start to the school day. First, the provision of school breakfast was believed to encourage a calmer start to the school day, beginning within the family home as morning routines were less rushed knowing that breakfast at home was not an absolute necessity as it was available at school:

'It's a lot easier, 'cause if you're in a rush you don't really have to think about breakfast; it's a lot easier' (quote from parent).

School breakfast was also thought in some cases to encourage children to arrive at school on time when they had otherwise been frequently late:

'Some of my ones that were persistently late are now coming on time because they want their breakfast' (quote from school staff member).

Though this view was not shared universally:

'It's definitely not getting them in any earlier, because we've still got exactly the same lateness that we had before' (quote from school staff member).



However, it seemed that staff were keen to ensure that all children were provided with a breakfast meal regardless of whether they were on time for school, so breakfast was not being used as an incentive to encourage punctuality:

'I think the children that seem to need it the most are the ones that obviously have a bit of a rush in the morning to get to school, and sometimes they're the ones that are late anyway so they do have to wait till playtime but at least they're getting something at some point in the morning' (quote from school staff member).

Once children were at school the breakfast they received was thought to contribute positively towards their ability to concentrate and pay attention in class as well as their mood and energy levels:

'They seem to be more alert in lessons. They seem to be able to concentrate a little bit more on their work straight away, rather than saying that they're hungry' (quote from school staff member).

'It gives me more energy and helps me think' (quote from child).

However, not all staff had noticed a change in children's ability to focus in class that could be attributed to school breakfast:

'I couldn't say, oh yeah, you can tell they've had breakfast this morning because they're performing much better, or they've not had breakfast because they're a bit sluggish. I've not noticed any difference at all' (quote from school staff member).

Though one member of staff did point out that although she had noticed no difference to children in her class in terms of their ability to concentrate, she was aware that the impact of breakfast on children's attention can be dependent on multiple factors:

'I haven't found any particular difference from my experience with the children that I work with, and I'm aware that that can vary depending on where you are and what social levels you are' (quote from school staff member).

Finally, in terms of providing a positive start to the school day, although the main aim of the breakfast scheme was to provide children with a nutritious breakfast at the start of the school day and time was not specifically set aside for additional activities, the value of social opportunities afforded to children through breakfast time spent with peers was recognized by children, parents and school staff:

'The best thing about eating breakfast for me [is] you sit on the table with your mates' (quote from child).

### *Brief Discussion of 'Positive Start to the School Day'*

The theme of Positive Start to the School Day presented a mixed picture of findings with some suggestions that breakfast club was beneficial to children's punctuality and subsequent ability to focus in class, and some recognizing no such advantage to children's involvement in breakfast clubs. These findings suggest that the magnitude of an effect might depend on the characteristics of the children involved in the intervention (Grantham-McGregor, 2005) and highlight the importance of breakfast

clubs having clearly defined aims. It appears that only a certain number of targets can be met within one scheme and the achievement of one goal might counteract the potential to achieve another; the conflict between punctuality and the need to ensure all children are allocated a breakfast regardless of time of arrival is a clear demonstration of how one target can counteract another.

Despite these mixed views regarding punctuality and attainment, it was evident that breakfast clubs were recognized as a valuable provision for encouraging social interactions between children and providing a more settled start to the day beginning in the family home in the morning. Previous research has associated numerous benefits with eating a meal in the company of others, including opportunities to support the development of positive social skills in children (Eisenberg et al., 2004) and to facilitate interaction, creating a sense of community and belonging within a group (Cason, 2006; Fulkerson et al., 2006). By offering children the opportunity to eat with peers in the morning, breakfast clubs might promote some of the advantages associated with eating with others. Moreover, the finding that breakfast clubs gave families a calmer, less rushed start to the day supports previous findings of Shemilt et al. (2003), who reported that breakfast clubs can alleviate stress within the family home in the morning before school.

### *Practical Considerations*

The final theme to emerge from discussions with parents, children and school staff was concerned with some practical issues surrounding the provision of breakfast in school. First of all, interviews with school staff revealed that, prior to implementation of the breakfast scheme, staff had been concerned that breakfast would be difficult to organize and would be more problematic than it has turned out to be, suggesting that the scheme had exceeded prior expectations:

‘I thought it would be a lot more troublesome. I thought it would take up more time, I thought children coming late into class and still eating when they come in, so we kind of envisaged more problems than there has been’  
(quote from school staff member).

However, based on the views of parents, children and school staff some minor changes would be necessary to develop the scheme beyond the pilot phase. It was clear that the breakfast scheme had been implemented quickly and as a result parents felt that they lacked input and control over whether their children participated in school breakfast. They also felt ill-informed on what their children were offered for breakfast at school:

‘All I know is that they get their breakfast before... I think it’s while they’re having the register, but we’ve not been told what it is or anything, only off the children, so we’ve not been told what they get’ (quote from parent).

The lack of information that was shared about the breakfast scheme also led to concerns about the temporary nature of the scheme as it was unknown at the time of data collection whether the scheme would continue beyond the pilot phase. It was argued if the scheme ended parents would have to take responsibility for providing their children with breakfast again and this would result in some children skipping breakfast:

'Parents now at this school they've got into the habit of their children being fed for half a term, half a term and one week, and those parents are now gonna have to start thinking again about providing breakfast for the kids; and those children from deprived backgrounds that weren't getting breakfast anyway won't get it' (quote from school staff member).

A further issue raised by parents and school staff was that the scheme was extremely costly and some felt that the money could be better spent elsewhere:

'For me I think it's a great deal of money being spent on something that could be better spent elsewhere' (quote from parent).

However, some recognized the value of the scheme in ensuring children receive a breakfast meal before the start of school and therefore suggested that sponsorship would be a useful way to continue the scheme while reducing the cost to the Council:

'I think you need a sponsor off certain cereal companies or... I think that would help' (quote from parent).

Finally, although the scheme ran well in most classrooms, some school staff believed that the classroom was not an environment conducive to the serving of breakfast and breakfast should therefore be served elsewhere in school:

'I think the idea of maybe putting them somewhere for their breakfast in the morning is a good idea. Having it in the classroom where it's a learning environment, I don't think that's doing us any favour' (quote from school staff member).

### *Brief Discussion of 'Practical Considerations'*

While the breakfast clubs in the current study were running better than expected, there were some concerns raised regarding parental input, cost and the breakfast environment that warrant attention by policymakers and educators. First, some parents felt that they had received little information about the breakfast scheme and were unable to offer any input on whether their children participated in the scheme. In the context of health promotion, school initiatives have been found to be more successful when parents are involved as this ensures that children are provided with clear and consistent messages at home as well as at school (Centers for Disease Control and Prevention, 2012). Moreover, parents have been described as 'critical in creating a healthy school environment' (Cho and Nadow, 2004, p. 433) as they play a key role in encouraging their children to eat healthily. Therefore, to ensure that breakfast clubs have the best chance of succeeding, policymakers need to be aware of the importance of utilizing parental input. Communication could begin with making menus freely accessible to parents through noticeboards and web pages, and giving parents opportunities to discuss any concerns with relevant school representatives.

In terms of cost of the breakfast scheme, some parents believed that the money being invested into the scheme could have been better spent elsewhere. Around the same time as the scheme was implemented in schools, many local authority employees learned that they would be made redundant (BBC, 2013). Additionally, the UK government announced changes to the benefits system with the introduction of Universal Credit and 'bedroom tax' (Department for Work and Pensions, 2013), meaning

that many people claiming benefits would see a reduction in the amount of money made available to them. The substantial financial changes that both employed and unemployed people in the North West of England were faced with at the time the breakfast scheme was set up might have led to the concerns about costs raised in the current study. It has been suggested that universal free breakfast schemes can save parents money by removing the need for them to provide breakfast for their children (Lewis and Cooper, 2013). Children's health can also be improved through positive changes in diet, which would consequently save government money in health care. However, any changes in parental and government spending are unlikely to be detectable in the short term, so cost-benefit analyses of school food initiatives are rare (Lucas, 2003). Cost-benefit analysis carried out on school breakfast schemes implemented in the United States under the School Breakfast Program have shown that free breakfast schemes can be implemented and run successfully while making profit through careful financial planning and evaluation (Hilleren, 2007).

The finding that cost was an important issue to some parents illustrates that cost-benefit analysis should be included as part of future school breakfast interventions in the UK. This would allow those directly affected by local authority and government budget cuts to see the effects of investment in such schemes, and to form a more informed opinion on any future investments. Moreover, some parents argued that sponsorship of the school breakfast scheme would be a useful financial development as it would direct some of the costs away from the local authority. The suggested cost-benefit analysis might help local authorities to gain financial support for breakfast schemes from external organizations, which could in turn lead to further financial security for school breakfast schemes.

Finally, some staff believed that breakfast should not be served in the classroom, particularly because it hindered learning time. These findings lend support to the results of an investigation carried out by Bernstein et al. (2004), who reported on cases of school breakfast being moved from classrooms to school cafeterias due to problems with excess mess being made in the classroom during breakfast. Similarly, Lent and Emerson (2007) found that while the majority of staff involved in a Milwaukee Public School breakfast programme were satisfied with the way breakfast was served in their school, more than 20% of staff were unsatisfied or very unsatisfied with breakfast being served in the classroom one month after programme implementation. Some of the staff had issues with the additional work load that was put upon them as a result of the scheme including the requirement to distribute breakfast, children requiring additional support such as opening wrappers, and the need to tidy away after breakfast.

However, Lent and Emerson (2007) also emphasized the positive outcomes associated with serving breakfast to children in the classroom. They reported that breakfast served in the classroom was more accessible to children than breakfast served elsewhere and they noted a 240% increase in the number of children accessing breakfast when a breakfast-in-the-classroom model was adopted.

The findings of the current study combined with the results of prior investigations suggest that while breakfast in the classroom can be a successful initiative for supporting children in accessing breakfast, this model might not be suitable in all cases. It is clear that what works well in one school might not be convenient to another so close liaison with school staff during the planning and early implementation phases of breakfast clubs is essential.

## General Discussion

The current investigation set out to determine the views of parents, children and school staff on a universal free primary school breakfast scheme in the North West of England, UK, as the views of these individuals in the UK are under-represented within the research literature.

Qualitative analysis revealed that school breakfast provision was valued as it encouraged children to consume a healthy and varied breakfast, which was thought to be particularly beneficial for children who might otherwise skip breakfast either through choice or a lack of provision at home. School breakfast was also thought to provide a smooth transition between home and school by reducing pressure in the family home and encouraging some children to get to school on time. Moreover, school breakfast offered children opportunities for social interaction and led to improvements in concentration, mood and energy levels at the start of the school day for some children. In addition to the advantages of school breakfast, some concerns were raised surrounding the high amounts of sugar and fat available through some of the school breakfast food and drink combinations as well as the large amount of food available to children across the school morning. Lack of communication with parents, high financial investment by the council and in some cases a lack of support for breakfast taking place in the classroom were points that were raised as areas requiring attention prior to any further development of the breakfast scheme.

The qualitative findings from the current study support previous arguments put forward by policymakers (e.g. London Assembly Health and Environment Committee, 2013) and charities (Magic Breakfast, 2013) that school breakfast has the potential to play a prominent role in reducing child hunger and poverty by ensuring that children are provided with a breakfast meal prior to the start of the formal school day. Furthermore, even when breakfast was available to children at home, some preferred to eat it at school and were reported to be more willing to try new foods at school than they would be at home. Hence as well as school breakfast having the potential to counteract hunger and poverty, it may also influence children's breakfast habits and food preferences. It is therefore essential that close consideration is given to the foods served at school breakfast, particularly because childhood dietary habits can track into adulthood (Mikkila *et al.*, 2005) and some concerns were raised in the current study regarding the nutritional content of school breakfast. Additionally, the wider reaching benefits of school breakfast, including the potential impacts on school performance, punctuality and family routines, suggest that policymakers and school breakfast staff need to ensure that they consider more than just food in the planning, implementation and evaluation of school breakfast. This is particularly relevant in the context of the School Food Plan (Dimpleby and Vincent, 2013), which outlines plans to support the implementation of 180 new breakfast clubs across the UK.

While the current findings offer a useful insight into UK school breakfast provision, the study is not without limitations. The school breakfast scheme was implemented very quickly, which meant that the study design was limited as it was not possible to consider using randomized controlled trials incorporating pre- and post-intervention measures. It has been argued that more stringent methodologies are required in the evaluation of real world interventions (Moore and Moore 2011); however, the current study illustrates that this can be difficult as there can be a mismatch between the need to implement schemes and the availability of research funding. Furthermore, previous research has shown that evaluation of real world interven-



tions using controlled trials can be problematic as contamination between treatment and control conditions can occur (e.g. Shemilt et al., 2004). A further limitation of the current study is that the evaluation was carried out in a small number of schools in one area of the UK, thus limiting the generalizability of the findings. Further research is needed nationally to provide a broader picture of benefits and drawbacks of school breakfast provision in the UK.

Overall the current findings suggest that school breakfast has the potential to influence positively children's breakfast habits as well as their social relationships, morning routines, classroom performance and mood. Through presentation of the views of parents, children and school staff, the present study offers a useful point of reference for policymakers and schools intending to implement breakfast provision.

## References

- BBC (BRITISH BROADCASTING CORPORATION) (2013) *Blackpool Council Cuts 700 Jobs and Services*. Published online <<http://www.bbc.co.uk/news/uk-england-lancashire-24928204>>, accessed 14 November 2013.
- BELDERSON, P., HARVEY, I., KIMBELL, R., O'NEILL, J., RUSSELL, J. and BARKER, M.E. (2003) Does breakfast-club attendance affect schoolchildren's nutrient intake? A study of dietary intake at three schools, *British Journal of Nutrition*, 90, pp. 1003–1006.
- BERNSTEIN, L.S., McLAUGHLIN, J.E., CREPINSEK, M.K., DAFT, L.M. and ALEXANDRIA, V.A. (2004) *Evaluation of the School Breakfast Program Pilot Project: Final Report*, Nutrition Assistance Program Report Series No. CN-04-SBP. Alexandria, VA: US Department of Agriculture, Food and Nutrition Service.
- BRAUN, V. and CLARKE, V. (2006) Using thematic analysis in psychology, *Qualitative Research in Psychology*, 3(2), pp. 77–101.
- BRO, R.T., SHANK, L., WILLIAMS, R. and McLAUGHLIN, T.F. (1994) The effects on an in-class breakfast program on attendance and on-task behavior of high school students, *Child and Family Behavior Therapy*, 16, pp. 1–8.
- CASON, K.L. (2006) Family meal times: more than just eating together, *Journal of the American Dietetic Association*, 106, pp. 532–533.
- CENTERS FOR DISEASE CONTROL AND PREVENTION (2012) *Parent Engagement: Strategies for Involving Parents in School Health*. Atlanta, GA: US Department of Health and Human Services.
- CHO, H. and NADOW, M.Z. (2004) Understanding barriers to implementing quality lunch and nutrition education, *Journal of Community Health*, 29(5), pp. 421–435.
- COE, S. (2013) Feeding the family: are food prices having an effect?, *Nutrition Bulletin*, 38(3), pp. 332–336.
- CONNER, M. and ARMITAGE, C.J. (2002) *The Social Psychology of Food*. Buckingham: Open University Press.
- DEFEYTER, M.A. and RUSSO, R. (2013) The effect of breakfast cereal consumption on adolescents' cognitive performance and mood, *Frontiers in Human Neuroscience*, 7(art. 789), pp. 1–10.
- DEFEYTER, M.A., GRAHAM, P.L., WALTON, J. and APICELLA, T. (2010) Breakfast clubs: availability for British schoolchildren and the nutritional, social and academic benefits, *Nutrition Bulletin*, 35, pp. 245–253.
- DEPARTMENT FOR WORK AND PENSIONS (2013) *Simplifying the Welfare System and Making Sure Work Pays*. Published online <<http://www.gov.uk/government/policies/simplifying-the-welfare-system-and-making-sure-work-pays>>, accessed September 2014.
- DIMBLEBY, H. and VINCENT, J. (2013) *The School Food Plan*. Published online <<http://www.schoolfoodplan.com/plan/>>, accessed 23 November 2013.
- EISENBERG, M.E., OLSON, R.E., NEUMARK-SZTAINER, D., STORY, M. and BEARINGER, L.H. (2004) Correlations between family meals and psychosocial well-being among adolescents, *Archives of Paediatric and Adolescent Medicine*, 158(8), pp. 792–796.
- FISHER, J.O. and BIRCH, L.L. (1999) Restricting access to foods and children's eating, *Appetite*, 32(3), pp. 405–419.
- FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS (2013) *The State of Food Insecurity in the World*. Published online <<http://www.fao.org/publications/sofi/en>>, accessed 1 January 2014.
- FULKERSON, J.A., STORY, M., MELLIN, A., LEFFERT, N., NEUMARK-SZTAINER, D. and FRENCH, S.A. (2006) Family dinner meal frequency and adolescent development: relationships with developmental assets and high-risk behaviors, *Journal of Adolescent Health*, 39(3), pp. 337–345.
- GRANTHAM-MCGREGOR, S. (2005) Can the provision of breakfast benefit school performance?, *Food Nutrition Bulletin*, 26, pp. 144–158.



- HARPER, C., WOOD, L. and MITCHELL, C. (2008) *The Provision of School Food in 18 Countries*. Published online <[http://www.childrensfoodtrust.org.uk/assets/research-reports/school\\_food\\_in18countries.pdf](http://www.childrensfoodtrust.org.uk/assets/research-reports/school_food_in18countries.pdf)>, accessed January 2014.
- HILLEREN, H. (2007) *School Breakfast Program Cost/Benefit Analysis*. Published online <<http://fyi.uwex.edu/wischoolbreakfast/files/2009/10/Wisconsin-School-Breakfast-Cost-Benefit-Analysis-Report-20071.pdf>>, accessed October 2013.
- LENT, M. and EMERSON, B. (2007) *Preliminary Findings from the 2006–2007 Universal Free Breakfast Initiative in Milwaukee Public Schools*. Milwaukee, WI: Hunger Task for of Milwaukee.
- LEWIS, J. and COOPER, R. (2013) *The Curious Case of No-charge School Breakfast: How Serving More for Less Pays Off*. Published online <[http://www.forabettertexas.org/images/2013\\_02\\_FN\\_PP\\_SchoolBreakfast\\_final.pdf](http://www.forabettertexas.org/images/2013_02_FN_PP_SchoolBreakfast_final.pdf)>, accessed October 2013.
- LONDON ASSEMBLY HEALTH AND ENVIRONMENT COMMITTEE (2013) *A Zero Hunger City: Tackling Food Poverty in London*. Published online <<http://www.london.gov.uk/sites/default/files/A%20Zero%20Hunger%20City.doc.pdf>>, accessed 28 November 2013.
- LUCAS, P. (2003) *Breakfast Clubs and School Fruit Schemes: Promising Practice: What Works for Children*. Published online <[http://www.barnardos.org.uk/breakfast\\_clubs\\_report.pdf](http://www.barnardos.org.uk/breakfast_clubs_report.pdf)>, accessed 14 February 2014.
- MAGIC BREAKFAST (2013) 'Prevention Pays': Magic Breakfast Charity Urges Action in Support of the Chief Medical Officer's 'Our Children Deserve Better' Report. Published online <<http://www.magicbreakfast.com/media-centre/press-releases>>, accessed 17 December 2013.
- MIKKILA, V., RASANEN, L., RAITAKARI, O.T., PIETINEN, P. and VIIKARI, J. (2005) Consistent dietary patterns identified from childhood to adulthood: the Cardiovascular Risk in Young Finns Study, *British Journal of Nutrition*, 93(6), pp. 923–931.
- MOORE, L. and MOORE, G.F. (2011) Public health evaluation: which designs work, for whom and under what circumstances?, *Journal of Epidemiology and Community Health*, 65(7), pp. 596–597.
- MOUNTER, N. and NOORDEGRAAF, D.V. (2012) *Intercoder Reliability for Qualitative Research: You Win Some, but Do You Lose Some As Well?* Published online <<http://repository.tudelft.nl/assets/uuid:905f391d-4b25-40cf-9292-e253b7e55db2/288162.pdf>>, accessed February 2014.
- POVERTY AND SOCIAL EXCLUSION UK (2013) *The Impoverishment of the UK: PSE UK First Results: Living Standards*. Published online <<http://www.poverty.ac.uk/pse-research/pse-uk-reports>>, accessed 1 January 2014.
- RAMPERSAUD, G.C. (2009) Benefits of breakfast for children and adolescents: update and recommendations for practitioners, *American Journal of Lifestyle Medicine*, 3, pp. 86–103.
- ROLLS, B.J., ENGELL, D. and BIRCH, L.L. (2000) Serving portion size influences 5-year-old but not 3-year-old children's food intakes, *Journal of the American Dietetic Association*, 100(2), pp. 232–234.
- SANDERCOCK, G.R.H., VOSS, C. and DYE, L. (2010) Associations between habitual school-day breakfast consumption, body mass index, physical activity and cardio respiratory fitness in English schoolchildren, *European Journal of Clinical Nutrition*, 64(10), pp. 1086–1092.
- SHEMILT, I., O'BRIEN, M., THOBURN, J., HARVEY, I., BELDERSON, P., ROBINSON, J., CAMINA, J. and School of Breakfast Clubs Evaluation Group (2003) School breakfast clubs, children and family support, *Children and Society*, 17(2), pp. 100–112.
- SHEMILT, I., HARVEY, I., SHEPSTONE, L., SWIFT, L., READING, R., MUGFORD, M., BELDERSON, P., NORRIS, N., THOBURN, J. and ROBINSON, J. (2004) A national evaluation of school breakfast clubs: evidence from a cluster randomised controlled trial and an observational analysis, *Child Care, Health and Development*, 30, pp. 413–427.
- SIMPSON, D., WATTIS, L., CROW, R. and SUMMERBELL, C.D. (2003) School breakfast clubs, social background and nutritional status, *Topic*, 29, pp. 1–3.
- SJÖBERG, A., HALLBERG, L., HÖGLUND, D. and HULTHÉN, L. (2003) Meal pattern, food choice, nutrient intake and lifestyle factors in the Göteborg Adolescence Study, *European Journal of Clinical Nutrition*, 57(12), pp. 1569–1578.
- SMITH, K.J., GALL, S.L., MCNAUGHTON, S.A., BLIZZARD, L., DWYER, T. and VENN, A.J. (2010) Skipping breakfast: longitudinal associations with cardiometabolic risk factors in the Childhood Determinants of Adult Health Study, *American Journal of Clinical Nutrition*, 92(6), pp. 1316–1325.
- WARDLE, J., HERRERA, M.L., COOKE, L. and GIBSON, E.L. (2003) Modifying children's food preferences: the effects of exposure and reward on acceptance of an unfamiliar vegetable, *European Journal of Clinical Nutrition*, 57, pp. 341–348.
- WESNES, K.A., PINCOCK, C., RICHARDSON, R., HELM, G. and HAILS, S. (2003) Breakfast reduces declines in attention and memory over the morning in schoolchildren, *Appetite*, 41, pp. 329–331.