Experiences of baby-led weaning: trust, control, and renegotiation

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Abstract
Baby-led weaning (Rapley 2013) is an approach to introducing solid foods that relies on the presence of self-feeding skills and is increasing in popularity in the UK and New Zealand. This study aimed to investigate the reported experiences and feelings of mothers using a BLW approach in order to better understand the experiences of the mother and infant, the benefits and challenges of the approach, and the beliefs which underpin these experiences. 15 UK Mothers were interviewed over the course of a series of five emails using a semi-structured approach. The email transcripts were anonymised and analysed using thematic analysis (Braun & Clarke 2006). There were four main themes which were identified from the analysis: i) Trusting the child, ii) Parental control and responsibility, iii) Precious milk and, iv) Renegotiating baby-led weaning. The themes identified reflect a range of different ideals and pressures that this group of mothers tried to negotiate in order to provide their infants with a positive and healthy introduction to solid foods. One of the key issues of potential concern is the timing at which some of the children ingested complementary foods. Although complementary foods were made available to the infants at 6 months of age, in many cases they were not ingested until much later. These findings have potentially important implications for mother's decision-making, health professional policy and practice, and future research.

Keywords
baby-led weaning, complementary feeding, introduction of solids, infant-feeding
**Key Messages**

- The decision to follow baby-led weaning (BLW) in this group of women arose from two main factors: 1) as part of a parenting philosophy, 2) when initial attempts to follow traditional weaning (TW) had failed.

- Reported experiences of food rejection using TW and BLW were often similar, in that food was rejected initially, but the ‘rules’ of BLW were perceived to allow this rejection, in the context of ‘trusting the child’ to eat when they were ready as ‘food until one is just for fun’.

- Further research should investigate the extent, and nutritional effect of, delays to the ingestion of solid foods for BLW infants.
Introduction

Baby-led weaning (BLW; Rapley 2003, 2011, 2013; Rapley & Murkett 2008) is an approach to introducing solid foods to infants which gives control of the feeding process to the infant. It relies on an infant being developmentally able to feed themselves (i.e. pick up, chew and swallow small pieces of food) as opposed to the more traditional weaning (TW) approach that relies on a more parent-led spoon feeding approach. BLW is reportedly becoming a more common method of weaning in the UK (Brown & Lee 2011a,b,c) and New Zealand (Cameron, Heath & Taylor 2012a).

According to Rapley (2013) infants develop the motor skills required to feed themselves at about six months of age. This concurs with the current WHO (2002) and UK Department of Health (DoH 2003) guidelines which state that infants should be exclusively breastfed until 6 months of age, at which time complementary foods should be introduced.

Actual figures regarding the timing of the introduction of solid foods in the UK show substantial deviations from these guidelines. In the UK in 2005, only 2% of mothers introduced solid foods after 6 months, with 51% of mothers introducing solids by 4 months (Bolling et al., 2007) while in 2010, 5% had introduced solid foods after 6 months and 30% by 4 months (McAndrew et al., 2012). Self-feeding is likely to delay the age at which solid foods are introduced and BLW has been found to be the most reliable predictor of weaning at 26 weeks as opposed to earlier weaning (Moore, Milligan & Goff 2012).

One suggested benefit of BLW is that it facilitates infants' "...gradual transition to solid foods, in their own time and at their own pace..." (Rapley 2011, p.21) and that it allows infants to control how much, and what types of foods they consume in the same way that breastfeeding is 'on demand' (Sachs, 2011). This may be beneficial since breastfeeding has been suggested to lower the risk of childhood obesity (Arenz, Ruckerl, Koletzko & von Kries 2004) due to the ability of breastfed children to regulate their intake of energy from milk (Dewey & Lonnerdal 1986). In support of this, Townsend and Pitchford (2012) found in a comparison of traditional weaning (TW) and BLW, that there was an increased incidence of obesity in the TW group. The authors concluded that "...infants weaned through the baby-led approach learn..."
to regulate their food intake in a manner which leads to lower BMI and a preference for healthy foods like carbohydrates” (p.1). However, there was also an increased incidence of underweight in the baby-led weaning group.

Relying on the infant to self-feed requires the achievement of a certain level of motor development. Wright et al. (2011) reported that while 56% of infants had reached out for food before 6 months of age, 6% were not doing so by 8 months, and 10% had not eaten finger foods by 8 months. Thus while Wright et al. (2011) concluded that baby-led weaning was likely appropriate for the majority of infants they also recognised that it "...could lead to nutritional problems for infants who are relatively developmentally delayed" (p.27). This is because breast milk may become insufficient to meet nutritional requirements after 6 months in relation to energy (Reilly, Ashworth & Wells 2005) and iron requirements (Chantry, Howard, & Auinger 2007).

It seems clear that further research is required in order to understand the process of BLW and the pros and cons of the approach. While the rationale for the method and the approach itself has been described in detail (Rapley 2013; Rapley & Murkett, 2008), it is not clear how well this description reflects the real experience of BLW. There has been limited research on this topic, and that which has been done is correlational in nature. Brown & Lee (2011a) found that BLW was associated with mothers having a higher level of education, breastfeeding, and that mothers who followed BLW were less anxious about feeding than mothers who followed a TW approach. Brown & Lee (2011b) also reported that BLW was associated with a feeding style which was lower in control due to lower levels of restriction, pressure to eat, monitoring and concern over child weight. The direction of these relationships, however, is not clear from these findings.

Few studies to date have qualitatively investigated the experiences of mothers who use BLW. Brown & Lee (2011c) conducted a qualitative content analysis of semi-structured interviews with mothers who had followed a BLW approach. Mothers spoke about the signs of readiness for weaning, monitoring their child's eating, food mess and waste, and incidents of choking. Cameron et al. (2012b) interviewed 20 mothers who self-defined as having used BLW. They reported that BLW was healthier, more convenient and less stressful than other approaches to weaning and
would recommend it to other mothers, although they did have concerns about the mess it produced. Cameron et al. (2012b) also interviewed health professionals who reported that they had limited experience of BLW and although they could see a number of potential advantages of BLW, they were reluctant to recommend the method due to concerns about the choking risk. However, the existing qualitative literature is somewhat limited as many of the themes identified in Brown & Lee’s (2011c) research closely matched the questions asked in the interview (e.g. 'mess' and 'choking') suggesting that the themes identified may have been led by the questions rather than by the mothers’ experiences. This was explicitly the case for Cameron et al. (2012b) who reported that “…the main lines of inquiry (knowledge, attitudes and experiences) from the interviews were used as an initial guide in a directed content analysis” (p.2). Thus, there is a need for further qualitative studies, in which the themes are derived from a more in-depth analysis of the data to better understand the experience of BLW in order to inform practice and to identify areas for future research.

In summary, BLW is an increasingly popular approach. It offers the potential to provide a method of weaning, which by its reliance on the development of self-feeding skills delays the introduction of solid foods until 6 months of age, which is broadly consistent with current health advice. However, there are concerns that it may not meet the nutritional needs of all children, including those who may have relative delay in the fine motor and oral skills required for self-feeding. This study aims to investigate the reported experiences of the mother and infant using a BLW approach in order to better understand the benefits and challenges of the approach, and the beliefs which underpin these experiences. This will offer a better insight into the realities of BLW which will be of benefit to parents, health professionals and researchers with an interest in infant feeding and weaning.
Methods

Ethical approval
Ethical approval for the study was granted by Sheffield Hallam University, Faculty of Development and Society.

Participants
Participants were recruited via UK-based internet parenting sites and forums. A range of types of forums were approached including those with a specific focus on baby-led weaning, and general parenting forums, in order to try to recruit mothers with a range of experiences. In each case permission was sought, from the owners or administrators, to place an advert on the site for mothers willing to take part in an interview about baby-led weaning conducted via email. Interested individuals were asked to respond by emailing one of the researchers for further information.

The further information indicated a number of inclusion criteria for the study. Namely that: i) they had tried baby-led weaning (even if they had mixed it with other approaches, or decided to change to a different approach); ii) that they had an infant aged between 9 and 15 months of age, and; iii) that they were living in the UK. The information also provided details of the structure of the interview, the kinds of topics that would be discussed, confidentiality and right to withdraw. Participants were also informed that they would be emailed a £10 e-voucher at the end of the study to thank them for their time and participation. If participants wished to take part in the study they were asked to email the researcher for the first set of questions and this was taken as consent to take part in the study.

Twenty-seven women emailed for information of whom 25 commenced the interview and 15 completed the interview process. The key characteristics of these participants are outlined in Table 1. Only seven of the participants mentioned from which forum that had been recruited, naming 4 different forums: 1 with a specific BLW focus and three general parenting forums. In order to comply with recommendations from the ethics committee, participants who did not complete the full interview process were classified as withdrawals and their data was destroyed.

Insert table 1 about here
Procedure
The semi-structured interview took place over the course of five emails. In each case the researcher sent a list of questions (embedded into the email message for ease of response) and invited the participant to respond in their own time. Upon receipt of the response, the researcher sent further planned questions, accompanied with questions to follow-up the answers given to earlier questions, in order to clarify participants' responses or to seek elaboration. The questions and information about the number of follow-up questions asked are provided in appendix 1. Through this iterative process, the researcher sought to enhance the quality of the data, in terms of the depth and richness of the responses, to produce what James & Busher (2006) describe as an 'enriched interview'. There were four emails containing planned questions. The final (fifth) email contained only questions following up on previous answers. If a response was not received from the participant, a reminder email was sent approximately 1 week after the first. If this reminder email was not responded to within a further 2 weeks, then the participant was classified as withdrawn and their data was deleted. Once a response to the final email had been received by the researcher, the participant was sent a debriefing sheet and a £10 e-voucher. Data from the email exchange was then extracted into NVivo, and as recommended by Meho (2006), names and other identifying features were replaced with pseudonyms. The original emails (sent and received) were then deleted to ensure that no record of participants' email addresses was retained.

Analysis
The transcripts were analysed using thematic analysis (Braun & Clarke 2006) to identify themes across the data set, using NVivo8 to assist with the organisation and categorisation of data. Although the analysis was conducted in the context of the broad research questions, the researchers sought to avoid using the interview questions as a coding frame for the themes.

Initially all transcripts were read thoroughly. Next the transcripts were annotated with initial coding ideas relating to the broad research questions. The categories for this initial coding were devised as a response to the reading (and re-reading) of the data, as part of an inductive, data-driven process (Braun & Clarke 2006). Once all the data were coded within NVivo8, this produced 90 initial codes. These initial codes were
then collated into potential themes, which were represented schematically in a 'thematic map' of the data (Braun & Clarke 2006). The codes within themes and sub-themes were then examined for any repetitions, and where these were found, codes were merged and checked to ensure that they comprised coherent groupings. This process resulted in 4 main overarching themes.

**Results**

There were 4 main themes identified from the analysis: i) Trusting the child, ii) Parental control and responsibility, iii) Precious milk and, iv) Renegotiating baby-led weaning.

**Theme 1: Trusting the child**

There were a number of areas in which participants spoke about the need to trust their child with regard to eating.

**Food for play or hunger?**

The first sub-theme that was identified was 'Food for play or hunger?'. Initially many of the mothers wrote about the use of food as a toy, for play and exploration.

*At this point the book said food is for fun until they are one, so I didn't worry that he appeared to be just messing with his food and all of it ended up on the floor (Amy)*

*In the early stages food was like a toy, She enjoyed playing with it, but if it wasn't around she wouldn't miss it (Cath)*

It was only later in this process that they described the child's need for food in relation to satiation.

*It's only recently that he's started eating with a purpose (Amy)*

*It wasn't until he was about 9 months old that it clicked with him what food was and that it staves off hunger (Liz)*

It wasn't clear how this shift from food for play to food for sustenance occurred but it was related to an ability for the mother to trust their child to control the timing of their
weaning and a belief that the ingestion of solid food was not necessary until the age of one.

He didn’t eat anything substantial until at least 11 months, but this was OK because he was still breastfeeding loads and I knew he was getting all his food from me. (Amy)

…she was very late to take to food, and was about 9/10 months before she put any food offered in her mouth….Her progress has been very very slow. (Zoe)

In these cases introduction of solid foods was substantially later than the recommended 180 days (WHO 2003). This may reflect an interpretation of the guidance within the context of the BLW ideals i.e. they made food available to their infant by this time but did not ensure that the food was actually ingested by the child. A number of the participants repeated the phrase ‘food until one is just for fun’ in their comments implying a shared belief in delays in the ingestion of solid food up to the age of one year as acceptable.

Some of the delays reported were pronounced:

…it they might not eat at all for the first year and especially if they’re ill. Billy hasn’t eaten anything solid in days and he is now 14 months old. (Amy)

The issue of the appropriateness of BLW during times of illness has been identified by Cameron et al. (2012a) who note that during childhood illness some modification of BLW may be required so that there is more assistance from the parent.

In some cases, participants reported that BLW had occurred earlier than 6 months although this was generally in relation to infants ‘stealing’ food ahead of the accepted time (6 months) rather than food being deliberately offered to the child prior to 26 weeks.

This might sound a little irresponsible, but Jessica’s first ‘taste’ of food wasn’t a conscious decision. She was 19 weeks and 5 days, and grabbed hold of a strawberry. I was shocked but thought I’d just see how she handled it. She sucked it all to a pulp and then gulped down the remainder in one. (Emma)
Thus trust in the child to control the timing of the introduction of solid food seemed to be anchored by the 6 month (WHO) recommendation. Where the child showed the apparent desire and ability to consume food prior to 26 weeks this was accompanied by some concerns about the early start, reflecting awareness of the guidance. However, there was not the same level of concern when infants were delayed in the consumption of complementary foods, despite this also being contrary to WHO guidance.

The move from food for play to food for sustenance was related to a trust in the child’s ability to develop the skills necessary for effective self-feeding at a pace that was consistent with their nutritional needs.

*I think food also acted as a motivator for Jessica, helping her to develop her motor skills quite rapidly.* (Emma)

*I think his ability to handle food has developed alongside his ability to eat it, so I’ve never felt he’s missed out on what we wanted/needed to eat.* (Joyce)

*We were happy with the way things were progressing because although she wasn’t eating much, she was learning new skills.* (Jane)

Whilst there is evidence that motor skills are likely to develop in part as a consequence of the child’s experiences and opportunities to learn (Carruth & Skinner 2002; Wright et al. 2011), there is no reason to suspect that motor skill development will necessarily correlate well with energy and nutritional needs. Infant Control (timing, amount eaten and food choice)

A further sub-theme focused on the infant having control of the amount of food eaten, expressed by the infant either stopping eating or indicating a desire for more food.

*He does stop eating when he’s had enough, and lets us know if he hasn’t had enough and want more.* (Helen)

*We have followed BLW advice and allowed him to continue to eat until it appears he wants no more. He has proved to me that he’s a good judge of his needs as an unusually large meal is usually followed by a very small one…* (Liz)
He stops eating. It’s very clear…For example this morning he had two Weetabix, asked for another one, ate that and asked for another one. He ate about half of that and the stopped eating. (Beth)

One of the principles of BLW is that just as breastfed babies control how much milk they consume, weaning infants should be able to retain this control over their eating (Rapley 2013). What is less clear is if they have the ability to do this effectively. Related to this was trust in the infant to choose the type of foods that they ate. Some of the passages in this context implied an ability to adjust food choice in response to differing nutritional needs.

He definitely knows what type of food he wants and when – for instance, this lunchtime he had sandwich and fruit on his high chair, and quite deliberately went for the sandwich and threw all the fruit off. Other times it’s the fruit/veg he goes for and pushes away the carbs, or he’ll be after protein and reject the rest until he’s eaten his fill of the thing he wants. (Joyce)

Idealised eating

A further sub-theme in this category was ‘idealised eating’. Many of the participants spoke of their desires for their child to develop good appetite control and the ability to make healthy food choices.

I have great faith that if I offer him a variety of healthy foods that he will pick out the ones he needs. (Vanessa)

I also hope that by standing back and trying hard not to pressure her over the quantities she eats, she will naturally eat to her appetite. (Julie)

Future Relationship with Food

For some participants there was also the hope that these appetite control skills that they hoped their infants would develop during weaning would extend through the rest of their lives.

He is a ‘happy’ eater, confident in what he does and doesn’t like and I’m confident in his ability to judge his own appetite. I’m very hopeful that in the future he will be stop
eating once he is full, and not over-eat but enjoy the occasional treat, not feel ashamed to be eating it but knowing that it’s something he eats in moderation. (Liz)

In summary, the participants in this study reported a large degree of trust in their infant’s ability to choose the timing, type and amount of food eaten, along with the development of associated self-feeding skills. Although the freedom of timing was somewhat restricted so as to be consistent with current guidelines that solid foods should not be introduced until 6 months/26 weeks there was less concern about delayed feeding. They also reported a desire and confidence for the approach to be associated with continued control of appetite in the future as well as the ability to make healthy food choices. It is evident therefore that the mothers in this study were seeking to make sense of the inherent contradictions between the current guidelines and the associated implications of delayed feeding alongside the principles of BLW and the emphasis on trusting the child.

**Theme 2: Parental control and responsibility**

The second theme of ‘parental control and responsibility’ is broadly in contrast with the first theme of ‘trust in the child’ to control the timing and amount eaten.

**Monitoring eating**

Some participants reported that they closely monitored their child’s eating or had a desire to do so which they found difficult to achieve.

*The negative side of baby led weaning is that it’s hard to measure how much food he has eaten.* (Amy)

*Even on good days she eats only very very small amounts, and there are many days when she eats nothing at all.* (Zoe)

One participant reported that she had chosen BLW as a conscious decision to ensure that she did not overly monitor her child’s food consumption.

*I think if I had weaned in a traditional way I would still have been counting and measuring how much he was consuming, and I knew it wasn’t healthy for me, or for him and his long term relationship with food.* (Beth)
In some cases monitoring was done indirectly through the monitoring of nappy contents or weight gain.

…even within a few days I noticed a change in his nappies (Ruth)

Positively he has started to gain a good amount of weight and he has started to sleep better (Sarah)

Some participants commented that BLW was done as a result of earlier failed attempts to following TW.

Although she showed all the ‘signs’ of being ready she wouldn’t open her mouth for the spoon and would eventually move her head away…I tried different consistencies, different purees and different temperatures but the same thing happened…Eventually I admitted defeat…and decided to go down the Baby-led weaning route at 6 months old. (Nikki)

My daughter expressed her dislike by turning her head away whenever a spoon was offered. She simply refused to let anyone put a spoon in her mouth…We moved to blw as a result of her refusing to be spoonfed…She first reacted to solid foods by playing with them in her hands and throwing them on the floor, and was about 9/10 months before she put any food offered in her mouth. (Zoe)

Nikki and Zoe’s experience of TW was not initially different to their experience of BLW in that food was rejected with both methods. However the ‘rules’ of BLW allowed for this rejection of food, within the context of trusting the child to eat when they are ready. Thus the adoption of BLW allowed them to be less worried about their child’s lack of food consumption.

Providing balanced nutrition

Many participants reported controlling the types of foods that their infants were exposed to, in particular, by withholding or limiting the amount of ‘unhealthy’ or treat foods offered.

Treats are definitely limited. For example, I will only offer him one slice of cake and will tell him it’s all gone if he asks for more. (Liz)

Flynn hasn’t had any food with added sugar yet. (Joyce)
In applying the principles of BLW, this trust in their child’s ability appears to be limited to choosing appropriate foods from a selection of healthy foods. This food restriction is in contrast to the lower levels of food restriction reported by Brown & Lee (2011b) in relation to BLW.

In other cases the control was in relation to the combination of foods or the order of foods within a meal.

*If he refused to eat his main meal, but asks for fruit I am starting to say he needs to eat his meal first…I want to avoid him filling up on fruit and not eating his main course.* (Beth)

This suggests that Beth is adapting the notion of trust, in that Beth does not trust her child to select a balanced diet from the foods placed in front of him, and an awareness on the part of Beth that this balance is more important as he gets older. Consistent with this, other participants reported an awareness of the need to provide balanced nutrition. This sometimes involved special food being offered to the child, or adaptation of family foods.

*I try to make sure my son and daughter get their daily requirements of fruit, veg, protein, calcium, fats etc. and if what me and my husband ate didn’t supply this then I would give them some cheese or a piece of fruit to cover it etc.* (Nikki)

*I need to watch the salt content of everything I make, which means the whole families food can be bland.* (Amy)

The adaptation of family foods is inconsistent with the findings of a recent pilot study (Rowan & Harris 2012) which reported that there were no significant changes in parental diet during the first 3 months of BLW. Although, consistent with Rowan and Harris (2012), additional foods were reported to be offered to infants to supplement the family diet.

In each of these cases it is not clear how the offering of nutritionally balanced meals interacts with the infant’s control of the types and amounts of food eaten, and how the consumption of a nutritionally balanced meal can be achieved (and monitored). Indeed one participant acknowledged this inherent difficulty:
Not being sure that she was getting all the nutrients she needed from the food I gave her…It has made me think very carefully about the food I offer, although not necessarily about the food she actually eats, as I trust that she’ll get the right balance she needs. (Cath)

Parental worry or concern

Counter to the findings of Brown & Lee (2011a) who reported that mothers who followed BLW were less anxious than those following TW some of the participants reported that the introduction of solid foods to their infant was a stressful process that caused them worry, particularly with regard to the amount eaten and the intake of a diet that fully meets their nutritional needs.

However, I am now more concerned that she is not getting all she needs from a nutritional point of view from breastmilk and the very little amount of solid food she eats…I worried particularly that she would not be getting enough iron. (Zoe)

The whole process has been very up and down though and I still continue to worry a little when he eats little or nothing. With experience though, I worry less as I get more confident in his ability to regulate his own intake. (Liz)

Zoe’s comment about concerns about iron deficiency mirrors concerns in the literature (e.g. Chantry et al. 2007) and WHO (2003) about the potential effects of the delayed introduction of solid foods for infants who are exclusively breastfed.

Some participants tried to downplay and minimise the stress and worry in relation to other more positive factors.

I also liked the experience of eating food as a family with no stress over how much she was having. (Cath)

…always sit up to the table and eat with your baby don’t get worked up some days he will eat more than others just like us so don’t worry and enjoy it…(Kerry)

Avoiding force-feeding

The potential worry of a BLW approach was often contrasted with a strong desire to avoid more traditional puree-fed approaches. These were often characterised as being akin to force-feeding, and the food described in un-appetising terms (e.g.
mush). As Knaak (2010) describes in relation to breastfeeding, such accounts highlight a ‘discursive gap’ between the available approaches (breast/formula feeding and BLW/TW) whereby one approach is idealised, whilst the other is devalued, enabling the mothers to define what constitutes ‘good mothering’.

My daughter was clearly not ready to eat at 6 months, but if I had followed the traditional weaning route (and she took a spoon!) I would have been forcing food into her before she was ready, and that really doesn’t seem right. We don’t force our children to do other things before they are ready (e.g. walking), so why should food be any different, as long as they are healthy and gaining weight. (Zoe)

I’ve watched babies scream at the dinner table whilst being forced fed some mush, but we’ve always had fun at dinner time. (Amy)

…one friend in particular did seem to put food in her baby’s mouth when he didn’t really want it. She always seemed to be in a rush and meal times were frantic. She would alternate spoons of sweet and savoury to fool him which didn’t sit well with me, and often feed him in his car seat when he wasn’t fully upright. The whole process made me feel uncomfortable. (Jane)

Following best practice

Often participants reported their desire and efforts to follow best practice with regard to the introduction of solid foods and how BLW fitted in with these. There was a particular focus on waiting until 6 months/26 weeks consistent with the findings of Moore, Milligan & Goff (2012).

I wanted to follow guidelines. I also felt that it would be easier as he would be able to eat almost everything straight away, e.g. bread. I did want to have an element of BLW also and would only be able to do this at 6 months. (Sarah)

We wanted to wait until 26 weeks to follow the current guidance, and chose a weekend so that David could be around to help and share the experience of her first few meals. (Julie)

Some previous research has reported that health professionals may not always give weaning advice that is consistent with current recommendations (e.g. Arden 2010;
Moore et al. 2012; Wallace & Kosmala-Anderson 2007), which was reported by some participants. In these cases participants had ignored this advice.

A health visitor did suggest weaning at 24 weeks because of his weight gain slowing and told me I would have to “rush through the stages as I’d left it late”. (Ruth)

The health visitor advised me at 5 months to start giving Lily baby rice as ‘she’s a big girl’. I had been given the Gill Rapley book Baby Led Weaning by a friend and was convinced that was what I wanted to try so I ignored the HVs advice. (Cath)

Validating choices

The commitment expressed by participants to follow the guidance both from WHO and BLW (Rapley 2013; Rapley & Murkett 2008) and delay the introduction of solid foods until 6 months is rather inconsistent with the theme of trusting the child to determine the timing of the introduction of solid foods. This represents an inherent conflict, for the mothers in this study, between a desire to follow best practice and wait until 6 months, and the desire to allow the child to direct the timing of the introduction of solid foods, albeit, that this might be limited by their developmental readiness to self-feed. Where solid food had been introduced earlier, however, these ‘trusting the child’ principles were used to validate the choices made.

I planned to commence solids at 6 months as per WHO guidelines. However the baby had other ideas and stole food off of plate aged just over 5 months…I was initially concerned that we had not reached to recommended 26 weeks, but as he decided for himself I was not too worried. (Vanessa)

In summary, despite a consistent theme to ‘trust the child’ to direct the process, participants in this study reported that they also maintained high levels of monitoring and control over many aspects of the process, in particular, delaying the availability of foods until 6 months and limiting or regulating the availability of certain foods in their desire to follow best practice. This group of mothers reported some level of concern and worry about the process, particularly with regard to this lack of control, and their ability to provide and ensure that a balanced nutritional intake was being achieved, but they contrasted this with an unpleasant forced approach in traditional weaning. In some cases BLW was adopted after unsuccessful TW, although rather
than BLW promoting food intake it legitimised the delay whilst at the same time reducing levels of anxiety.

**Theme 3: Precious milk**

The third theme that was identified was that of ‘precious milk’ and the role and importance of milk in the nutrition of the infant.

Importance of Breastfeeding

The vast majority of the participants in this study breastfed their infants. Many of them wrote about the importance of breast milk in their infant’s diet, during the process of the introduction of solid foods and particularly up until the age of one year.

*I believe that a baby shouldn’t be rushed into eating solid food. Milk is enough for them until they are 1.* (Jane)

*Billy is gradually weaning, which means he is still getting some precious milk from me.* (Amy)

*I thought the calories in milk were much more likely to promote weight gain and I wanted to maximise his milk intake not replace it…Milk is far more nutritious than anything else he was likely to eat…Milk is much more calorie dense than purees – fruit, veg, baby rice etc. I felt that he should be having most of his “food” as nutritious milk rather than bulky filler.* (Ruth)

The emphasis on breast milk as an important part of an infant’s nutrition is consistent with WHO guidance which recommends breastfeeding until at least 2 years of age (2003). However, the belief that breast milk alone is sufficient until the age of one is inconsistent with WHO (2003) recommendations which state that the introduction of complementary foods should not be delayed beyond 180 days.

The focus on the benefits of breast milk and breastfeeding itself was very important for some of the participants.

*I would be devastated if Billy weaned because breastfeeding is an important part of our relationship and I want to get to two years before he weans. It provides comfort as well as food and it creates a special bond.* (Amy)
I was a little apprehensive that he took to it too well as he dropped breastfeeds very quickly. I made sure that I continued to offer breastfeeds before meals until about 9 months but by that time he simply wouldn’t nurse before lunch. (Ruth)

This reflects the close mother-child bond associated with breastfeeding (e.g. Hills-Bonczyk et al. 1994), and the strong feelings of loss that mothers can feel if they stop breastfeeding before they are emotionally ready (Hauck & Irurita 2002). For some, breastfeeding is symbolic of being a good mother (Wall 2001), and thus stopping breastfeeding might threaten that identity as a good mother (Knaak 2010).

Attachment Parenting

For others, breastfeeding was not just a method of feeding their child but part of a whole parenting style (Faircloth 2010). A number of the participants mentioned attachment parenting, baby-wearing and co-sleeping alongside breastfeeding and baby-led weaning.

I love the idea of attachment parenting (although he’s very supportive it’s a bit too far up the ‘hippy’ scale for John’s liking!) and I feel that BLW fits in very well. I was a keen babywearer for the first 5 months until Ben got a bit too heavy to carry permanently. (Helen)

We’re a somewhat “alternative” family, and are happily practicing co-sleeping, baby-wearing, and baby-led weaning. (Joyce)

Attachment parenting (Sears & Sears 2001) is an approach to parenting, reportedly based on the principles of attachment theory, which focuses on the development of a strong parent-child bond, often through practices such as extended breastfeeding, co-sleeping and baby-wearing¹.

In summary, breast milk was reported by these participants to be very important in terms of the breastfeeding bond and the role of milk in the nutrition of infants, particularly for the first year of life. The role of solid food in reducing and potentially halting breastfeeding was a concern for some women and this played a part in their choice to use BLW as opposed to TW. BLW was seen as consistent with an attachment parenting style for some of the participants.
Theme 4: Renegotiating BLW

Throughout the text participants described their varying experiences of BLW. In many cases these deviated from the key principle of BLW that the baby “…feeds herself …” (Rapley & Murkett 2001 p.17). This focus on the practical limitations of BLW and the ways in which they were overcome by participants were commented on by many. Some participants reported delivering food to their infants using spoons.

*We now usually spoon feed at tea time as she is often tired, but she likes to take the spoon from us towards the end and have a go herself.* (Jane)

…I have introduced loaded spoons for some foods and encourage my son to take the spoon rather than use his fingers…I have introduced loaded spoons for some foods and encourage my son to take the spoon rather than use his fingers…*Chilli con carne is a spoon-fed meal as in the past he’s rubbed his eyes with chilli covered hands and he screamed.* (Liz)

**Mess**

In each case participants offered a reason or justification for the spoon-feeding. Consistent with the findings of Brown & Lee (2011c) often this was related to the issue of mess.

*Lydia tends to drop quite a lot and have it handed back but we can’t do this on the train, so I’ll give her a pot of food on a spoon and a little square of sandwich or some banana to go with it.* (Julie)

*So far I have found BLW not to be too messy. I mostly let her loose on dryish foods, so she has buttered toast and cut grapes but anything too wet and squishy I feed to her myself. For example, noodles I feed to her with a little in my hand and other foods like baked beans or rice pudding or fed by spoon.* (Nikki)

In Nikki’s example it seems that the foods that her child has been offered have been modified according to the mess that self-feeding is likely to produce.

Other participants reported helping their infants to get food into their mouths.

*Before she perfected her pincer movement she’d often want food she couldn’t quite get so I’d pick it up and pop it in for her.* (Emma)
She has what we are having for tea but I do whizz it up a little for her now – I didn’t used to when she was exploring food but now she has less milk I like to give her a fighting chance at eating. (Jane)

These practices seem in direct contradiction to the reported trust in the infant’s ability to self-feed, and indeed an acknowledgement that for some infants, as found by Wright et al. (2011), their apparent desire for solid foods, or their nutritional needs, may be at odds with their ability to self-feed. This may also reflect parental monitoring and concern about the amount of food eaten. Thus the renegotiation of BLW is a potential response to this problem.

Some participants reported different feeding practices at home compared to those followed in nursery.

I didn’t ask nursery to do blw at that stage a lot of food was being thrown around and not much was being eaten. I would have been embarrassed to ask them to do this if she wasn’t eating anything. (Jane)

It will make it easier for him to be at nursery that he has experience of both being fed and feeding himself finger foods. At nursery the babies are all fed their meals but also have snacky finger foods, such as fruit, veg and raisins. (Sarah)

The reluctance of participants to insist on a BLW approach at nursery may reflect the perception of BLW as a cultural practice, which is at odds with the wider cultural context. Locke (2009) argues that for breastfeeding to be successful, the mother needs to feel supported in her efforts to breastfeed, not only by family members but also within the wider societal context. In a similar way, where there is perceived to be an underlying cultural conflict, the mother may not feel able to request that others follow BLW with their infant.

This may lead the mother to renegotiate how BLW should be defined and practiced.

If a baby doesn’t like handling and eating pieces of food and prefers to be spoonfed, that’s fine and it’s still baby led! (Helen)

Combining TW and BLW
Thus for many children in this study their experience of being given solid foods is in fact a combination of BLW and TW.

It baffles me that there seems to be some division over TW and BLW methods. I don’t see why there is such a need to pigeon hole the method used so much….I’ll often come across ladies who said that they ‘do BLW but also feed them purees’. On the back of that, some parents jump in and say ‘well, you’re not doing BLW then, you’re doing TW’…What’s the big deal!? (Emma)

In summary, some participants reported that they deviated from the ‘rules’ of BLW in order to avoid mess and to assist their infants when they were not developmentally able to self-feed. In addition, some participants reported that they used different approaches in the home environment to that which they felt they could ask for in a nursery context.

Discussion
The experiences reported by this group of mothers offer an in-depth insight into some of the experiences, beliefs and conflicts of BLW. BLW as described by Rapley (2004, 2005, 2013) and Rapley & Murkett (2008) focuses very much on trusting the child and the accounts from the participants mirrored this ideal. Participants provided accounts about trusting the child to dictate the timing of the ingestion of solids, the amount of food consumed and the types of foods chosen. However, this was contrasted with a second theme of parental control and responsibility and a further theme in which participants renegotiated BLW in order to address some of these conflicts. Thus, while some of the comments were consistent with the ideals of BLW as set out by Rapley et al. many of the experiences deviated from this.

Allowing children to regulate their feeding and respond to satiety cues is thought to be important in the development of self-regulatory mechanisms which contribute to weight control in later childhood (Johnson, 2000). A recent study identified maternal controlling feeding styles in the first 6 months of life (Gross, Mendelsohn, Fierman & Messito 2011) and considered the associated risks for overweight and obesity in later life. The BLW approach described in this study emphasised that trust and control is passed to the infant and this therefore provides a feeding method that may lower maternal control and promote better self-regulation in later life.
One issue of potential concern with BLW is the timing at which some of the children ingested complementary foods (as opposed to 'playing' with them). The WHO (2003) recommends that complementary foods should be introduced and ingested at 6 months of age with recommendations that in addition to breastfeeds infants aged 6-8 months should have 2-3 meals per day and should consume 130-200 kcal per day through these complementary foods. It is clear from the BLW experiences reported here that although complementary foods were introduced at 6 months of age, as in they were made available for the infant to eat, in many cases they were not ingested until much later. This experience is consistent with the technique as described by Rapley & Murkett (2008) who state that the growing need is gradual and that by 9 months BLW babies will have the skills needed for self-feeding, although no evidence is presented to support this view. However for some participants their belief in the ability of breast milk to provide adequate nutrition extended well beyond 9 months. The phrase ‘food until one is just for fun’ was commonly cited in their accounts and more broadly in online discussions about BLW. Of particular concern in this regard is those participants who reported that their infants had rejected TW, and they had as a result changed to a BLW approach. In some reports, this shift had not resulted in improved eating in the infant, but rather a legitimisation of the delay within an alternative set of 'rules'. Thus BLW has the potential to mask potential feeding problems.

Feeding problems and issues of nutritional adequacy can, of course, also result from traditional weaning. Concerns about the nutritional content of commercial weaning foods in the UK have recently been raised (Garcia, Raza, Parrett & Wright 2013), with findings that foods targeted from 4 months had energy contents no higher than breast milk. Traditional weaning with purees may also mask feeding problems with lumpy or more highly textured foods (e.g. Northstone et al. 2001). Feeding problems identified in the Infant feeding survey (2010) included a refusal to eat certain solids, any solids, being disinterested in foods, preferring drinks and disliking eating from a spoon (McAndrews et al. 2012). The UK Department of Health (COMA, 1994) has suggested that it is important to introduce home-made foods in order to provide a range of flavours and textures, and BLW may be one way by which this variety could be achieved.
The renegotiation of BLW reported by some of the participants in this study indicated that for some the realities of weaning were that a combination of BLW and TW approaches had been utilised. It is not clear from the previous literature how common this combination approach is as a majority of studies have asked participants to self-identify as following BLW (Cameron et al. 2012a) and even where a more objective measure has been used, the definition of BLW has allowed for some spoon-feeding and purees. Brown & Lee (2011a,b,c) classified respondents as BLW if they spoon-fed and used purees less than 10% of the time. Given the likelihood of relative developmental delay in self-feeding skills for some children (e.g. Wright et al. 2011), the additional need for assistance during periods of ill-health (Cameron et al. 2012a), and parental monitoring of food intake, a combination of BLW and TW would seem like a pragmatic approach which would avoid the potential for nutritional deficiencies. Indeed it is this combined approach that has been advocated by a number of researchers (Reeves 2008; Wright et al. 2010) and would be consistent with WHO (2003) recommendations to promote responsive feeding.

Some of the participants reported their desire to use BLW in order to ensure that their child developed a healthy relationship with food for the future. This included the ability to eat to (and not beyond) their appetite and to eat a range of healthy foods. One of the very few research papers referred to in the Rapley & Murkett (2008) text is an early paper by Davis (1928) in which she demonstrated that children, aged from 6 months to 4.5 years, who were exposed to a range of 33 different (healthy) foods, with a slightly different selection at each meal, were able to self-select a well-balanced diet. Townsend & Pitchford (2012) reported that compared to TW infants, infants who were weaned using BLW showed an increased preference for carbohydrates. As to healthy eating in the longer term, while there is evidence to suggest that breastfeeding lowers the risk of childhood obesity (Arenz, Ruckerl, Koletzko & von Kries 2004) due to the ability of breastfed children to regulate their intake of energy from milk (Dewey & Lonnerdal 1986), and a suggestion that BLW may allow infants to continue to regulate their energy intake (Rapley 2011), it is unclear whether BLW will achieve this in the longer term. In addition, this was controlled in part by the parents in that they made considerable efforts to ensure that the child was provided with a nutritionally balanced diet (although the child was allowed to choose which foods to consume from those presented). Previous
Research has indicated that mothers who BLW are more likely to be highly educated (Brown and Lee 2011a) and this may provide them with a level of knowledge necessary for this difficult task of providing a nutritionally balanced diet. However, it does pose an area of concern if the principles of BLW were adopted and promoted more widely by health professionals.

Concern and worry about the introduction of solid foods seems widespread. 11% of UK Mothers reported experiencing difficulties in the 2010 Infant feeding survey (McAndrew et al., 2012). Surprisingly Mothers introducing solids after 5 months were more likely to cite problems (such as a refusal to take, or a disinterest in solid foods), than those introducing between 3 and 4 months, and this could result in a move to BLW for those mothers who experience problems with traditional weaning. Future research on this group is essential since understanding these problems is important to be able to support mothers to make healthy choices for their infants and to reduce anxiety and worry.

There are some potential limitations of this study. The participants were all recruited from online forums which tend to be associated with being middle class and educated (Im & Chee 2006). However, given that these characteristics are also those associated with mothers who choose BLW (Brown & Lee 2011a) it is unlikely that the sample has been limited in this way. Because the sample were self-selecting it may have been participants who had particularly strong views about BLW who volunteered to take part and who were sufficiently motivated to complete the study. We tried to limit this issue by recruiting participants from a range of types of forums. However, the study was quite intensive and required a significant commitment. A large number of participants (n = 10) withdrew during the interview process by failing to respond to the email communication. In all cases information about the reason for withdrawal was not able to be ascertained as no further contact was made. Relatively high drop-out rates are a known limitation of the email interview technique (Meho 2006) and could have led to further self-selection and some bias in the sample. However, the experiences written about are quite wide ranging and while we do not claim to have been able to understand the experiences of all mothers who choose to use BLW we do feel that we have been able to represent a range of responses.
**Conclusion**

The decision to follow BLW in this group of mothers arose from two main factors: as part of a parenting philosophy, or when initial attempts to follow TW had failed. For this latter group, there may have been other underlying reasons for the child’s lack of interest in food, or unwillingness to be spoon-fed that may impact on their experience of BLW. This is the first study to identify these different BLW groups, and further research is needed to investigate whether these groups are representative and whether their experiences of BLW differ. It seems clear that further research should investigate the extent, and nutritional effects of, delays to the ingestion of solid foods for infants following a BLW approach, and health professionals should develop suitable guidance to support parents who choose this approach and experience some delay.
References


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**Contributions**
Both authors were involved in the conceptualization and design of the study, and the analysis and interpretation of the data. Both authors jointly drafted the paper.
Table 1: Participant characteristics

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>Age of Mother (years)</th>
<th>Age of infant (months)</th>
<th>Sex of infant</th>
<th>Firstborn</th>
<th>Method of milk feeding</th>
<th>Age at which complementary foods were first offered* (weeks)</th>
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<tr>
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</tr>
</tbody>
</table>

* Note: This does not necessarily coincide with the age at which foods were first reported to be ingested
Appendix: Interview Schedule

Email 1: Introduction & milk feeding
   a. Can you tell me a bit about yourself and your family?
   b. How did you feed your baby milk and how did you find that experience?

Email 2: Deciding to introduce solids
   a. 3-7 follow-up questions to email 1 (mean = 5.4 questions)
   c. When did you start to introduce solid foods into your baby's diet and why did you choose this time?
   d. Were you given any advice about this process? If so, who gave you the advice and what were you advised?
   e. How did you first give your baby solid foods?
   f. What foods did you give them?

Email 3: The experience of feeding solids
   g. 2-8 follow-up questions to email 2 (mean = 5.3 questions)
   h. How did your baby react to solid foods initially?
   i. Did this change affect them in any way? If so, how?
   j. How did you feel about feeding your baby solid foods?
   k. Did you change the method of feeding them along the way, and if so why?
   l. How did your baby progress from initially trying solid foods to established eating?

Email 4: Reflections on weaning
   m. 2-10 follow-up questions to email 3 (mean = 5.1 questions)
   n. What have been the positive and negative things about your experience of feeding solid foods to your baby?
   o. What advice would you give to an inexperienced mum about the process of introducing solid foods?
   p. What do you think are the effects of your method of feeding solids on your baby's eating now? and in the future?

Email 5: Rounding up
   q. 1-9 follow-up questions to email 4 (mean = 4.2 questions).
A search on www.google.com of the exact phrase "food until one is just for fun" conducted on 23/09/2013 resulted in 2,910 hits and included references on at least 14 different parenting forums including those in the UK, USA and Australia.