



Nain, Mam and Me: Historical artefacts as prompts for reminiscence, reflection and conversation about feeding babies. A qualitative development study

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Abstract

Historical artefacts can act as distancing objects, encouraging neutral discussion around sensitive topics that involve personal decision-making. Infant feeding is an example of a sensitive topic where strong emotions associated with infrequently shared experiences often underlie present beliefs and values. An exhibition of historical artefacts designed to generate discussion around the topic of infant feeding was piloted at the Welsh National Eisteddfod 2015 as part of a qualitative development study. The study indicated that the exhibition was perceived as a safe space for discussion regardless of prior beliefs and experience, and that artefacts acted as effective prompts for reminiscence and reflection. Follow-up interviews identified areas of intergenerational change that impact on intergenerational support – changing hospital practices, expert advice and attitudes towards breastfeeding in public places. The exhibition indicated the potential of historical artefacts to facilitate intra- and intergenerational conversation around sensitive public health topics.

Keywords: infant feeding; grandparents; community-based interventions; health promotion; social history; exhibition

Key messages

- Non-directive, artefact-based approaches can provide openings for discussion around the sensitive topic of infant feeding.
- Storytelling is a rich potential source for a largely unwritten social history of changing infant feeding beliefs and practices.
- Opportunities to reflect on changes in the health service, in expert advice and in wider social attitudes may help families to make 'then' and 'now' comparisons and to contextualize their own experiences.

Introduction

Infant feeding is a sensitive public health topic. While decisions to breastfeed are associated with improved health outcomes in both developing and developed country settings (Victoria *et al.*, 2016), including the UK context (Renfrew *et al.*, 2012), from a socio-cultural perspective, advice to breastfeed has become entangled with questions

of morality and maternal identity (Lee, 2007). UK mothers have a very high breastfeeding 'disappointment rate' (Trickey, 2016). Many mothers who do decide to breastfeed have disappointing experiences, with the majority stopping in the early weeks, before they planned to do so (McAndrew *et al.*, 2012). Nearly all mothers use formula milk, either exclusively or in combination with breast milk, at some point along their feeding journeys, and there is a strong social gradient on feeding decisions – with younger, less affluent, less educated mothers being less likely to initiate or maintain breastfeeding (*ibid.*). Mothers frequently experience feelings of guilt, pressure or shame, however they feed their babies (Trickey and Newburn, 2014; Thomson *et al.*, 2015). Many feel exhorted but not supported to breastfeed, while mothers who continue to breastfeed often find that they need to justify when, where, how often and how much they feed their baby (Trickey and Newburn, 2014). Women who use formula milk often find that they have to engage in 'identity work' to justify their feeding decisions to others (Faircloth, 2010).

Viewed in historical perspective, the practice of breastfeeding declined in the UK, as in the Western world generally, from the late 1800s onwards, with a sharper fall after the Second World War (Fildes, 1986; Apple, 1987; Wolf, 2001), reaching a nadir in the early 1970s, at which time only around 50 per cent of mothers in England and Wales were initiating breastfeeding (Martin, 1978). Since then, infant feeding has taken on a resurgence as a public health concern, and over the past two decades the strategic focus for policy has been implementation of the Unicef Baby Friendly programme to achieve transformation in systems of maternity care and in the practice of health care professionals (Unicef UK Baby Friendly, 2016a). Since the 1970s, there have been incremental rises in breastfeeding rates, so that by the time of the most recent infant feeding survey in 2010, around four in five mothers initiated breastfeeding (McAndrew *et al.*, 2012).

Within the overall framework of a public health policy to promote breastfeeding, recent generations of mothers have also experienced changes to procedures for preparation of formula milks and advice about the timing of introduction of solid foods. UK governments adopted the World Health Organization (WHO, 2003) guidelines recommending introduction of solid foods to infants at six months. Survey research indicates that while most mothers tend to understand the new guidelines, this knowledge has not always translated into compliance (Moore *et al.*, 2014). A systematic review published in 2003 found that mothers commonly make errors in reconstitution of formula milks, with a tendency to over-concentrate feeds, and highlighted potential for confusion stemming from the wide range of different formula preparations that were available for sale in the UK supermarket, with a range of scoop sizes (Renfrew *et al.*, 2003). The onus on mothers to make 'critical choices' about feeding has an impact on consumer decisions about which formula milks, baby foods and feeding-related items to use (Afflerback *et al.*, 2013).

A wider public discourse that suggests that mothers make feeding 'choices' restricts understanding of the influence of wider contextual and historical influences – including commercial pressure, societal attitudes and health service practices. A 2016 *Lancet* series on breastfeeding and public health concluded that shifts in the breastfeeding rate and consequent health gains are unlikely if public health attention remains on educating expectant mothers about the benefits of breastfeeding (Rollins *et al.*, 2016). This message forms the basis for Unicef UK's recent Call to Action, which highlights the need for the UK government to take a strategic approach to infant feeding policy, to provide a firmer pushback against competing commercial interests

and to 'change the conversation' by focusing on structural and environmental concerns rather than individual-level feeding decisions (Unicef UK Baby Friendly, 2016b):

... by stopping laying the responsibility for this major public health issue in the laps of individual women and acknowledging the role that politics and society has to play at every level. The goal of our Call to Action is not to put pressure on women to breastfeed, but to remove the barriers that currently stop women who want to breastfeed from doing so.
(Unicef UK Baby Friendly, 2016b)

Translating this macro-level call into micro-level changes in the way that we talk with one another about our feeding decisions is no small task.

From a public health perspective, it may be particularly important to facilitate open discussion with mothers' natural lay supporters, including grandparents. Grandparents are often a key source of practical and childcare support, particularly in communities where families tend to stay in the same locality, which in the UK tend to be lower-income communities with lower breastfeeding rates. This form of support seems to be negatively associated with breastfeeding (Emmott and Mace, 2015). The last UK-wide infant feeding survey showed that mothers whose own mothers used formula milk are less likely to breastfeed (McAndrew *et al.*, 2012). Furthermore, mothers who introduced solid foods before 17 weeks have been found to be predominantly influenced by advice from their own mother or grandmother (Moore *et al.*, 2012), a historical advice context that provides the formative experience for grandparents who go on to support subsequent generations of mothers.

Historical artefacts as a way into a sensitive topic

Where traditional health education messages struggle, non-directive approaches may help facilitate discussion about different health beliefs and practices. Public engagement methods, drawing on experience and resources within the cultural heritage sector, can create opportunities for non-directive engagement and 'environments and processes to re-examine behaviour, attitudes and beliefs' (Camic and Chatterjee, 2013: 67). The opportunity to directly handle artefacts from different times can trigger emotional and sensory responses (Froggett *et al.*, 2011) and historical artefacts relating to sensitive topics, such as sexual practices, have been shown to act as distancing objects, encouraging discussion without embarrassment or judgement, and acting as stimuli for reflection and attitude change (Fisher *et al.*, 2016). To date, there are no studies that have applied this kind of approach to the topic of infant feeding.

An exhibition was devised by the authors to test the use of historical artefacts and images as prompts for learning and discussion about changing feeding practices and for reflection on personal attitudes and beliefs. Within the exhibition, historical artefacts related to baby feeding were intended to act as social objects that would allow people to:

focus their attention on a third thing rather than on each other, making interpersonal engagement more comfortable ... a social object is one that connects the people who create, own, use, critique, or consume it. Social objects are transactional, facilitating exchanges among those who encounter them.

(Simon, 2010: Chapter 4)

The exhibition piloted the use of historical artefacts and images as prompts for learning and discussion, for reflection on personal attitudes and beliefs and as an opportunity for discussion with stand facilitators and other visitors, including family members.

Inexpensive artefacts were sourced from auction websites, where infant-feeding items including baby bottles, breast-pumps and formula tins, dating to the late nineteenth century and the twentieth century are often sold as 'vintage' pieces. Photographs of artefacts, reproductions of drawings and paintings from the Middle Ages to the late 1970s and facsimiles of leaflets providing advice on infant feeding were also displayed, on wall surfaces, on hanging lines and in image albums. These documents were sourced from the private collection of Emeritus Professor Terry Turner (Cardiff University), the Wellcome Trust collections, St Fagans National History Museum, the Boots Archives and repositories of open-access images. Also, a Welsh nursing shawl belonging to one of the researchers was displayed on a mannequin.

The exhibition was piloted at the Welsh National Eisteddfod, August 2015. Two of the authors are public health researchers (Heather Trickey and Julia Sanders), and one is a historian (Laurence Totelin); Laurence Totelin took the lead in collating and curating items for display. The collection of artefacts formed the central focus of a 20-square-metre area within Cardiff University's National Eisteddfod exhibition tent. Artefacts were arranged to give the impression of a 'flea market'; a look that was intended to encourage visitors to pick up and handle the objects (see Figure 1). The stand was facilitated by two of the authors (Laurence Totelin and Heather Trickey) and a Welsh-speaking research assistant, with support from three Welsh-speaking undergraduate students.

An indirect agenda to 'promote breastfeeding' underlay the exhibition, to the extent that this theme was intended to stimulate thinking about changes in feeding practices in a context of low breastfeeding rates. The exhibition agenda was also influenced by the team's shared positive perspective towards encouraging more women to consider, initiate and subsequently enjoy breastfeeding, and desire to explore alternative ways in which this might be achieved. However, the exhibition did not overtly promote the 'benefits of breastfeeding', and visitors were invited to negotiate the exhibition in their own way and to draw their own conclusions.

Facilitation of the stand was intended to be non-directive. The weight of attention given by the facilitators to the different artefacts was visitor-led. Visitors were encouraged to hold the objects, flip through manuals and photograph albums, to try on a Welsh shawl and to speculate about the objects and any intended and unintended consequences of their use. Facilitators sought to adopt a listening approach to conversations about feeding babies. Where visitors recognized artefacts, facilitators encouraged them to discuss their memories with the facilitator and with any other visitors to the stand, and particularly with other family members.

Additional material and activities, intended to stimulate reflection on changing feeding practices, were presented on boards and display tables alongside the central collection of artefacts and images. These included maps and graphs comparing breastfeeding rates in different countries, different parts of the UK and different parts of Wales, as well as contemporary cartoon drawings relating to the challenges presented by life with a new baby and ambiguous attitudes to breastfeeding in public places. A string timeline, intended to encourage visitors to place their own experiences in historical context, spanned the top of the stand. Visitors were invited to peg paper 'socks' to the line to indicate when they, and any children and grandchildren, were born.

Figure 1: Close up on part of the Nain, Mam and Me stand


Credit: Laurence Totelin

To attract families, activities were provided for children. These were chosen to tie in with the main theme of the stand and to stimulate thinking about how babies are fed. Items for children included a box of dolls, and a selection of books for children of different ages in English and Welsh, including books about the needs and abilities of new babies, which contained drawings or photographs of babies being breastfed, or explained the ways in which different baby animals are fed. Children were invited to 'draw a baby being fed'; unless the child wanted to take the pictures away they were displayed for subsequent visitors.

Aims

An integrated qualitative development study aimed to:

- explore the potential of a range of infant-feeding-related historical artefacts to engage visitors with different personal beliefs and experiences and to act as catalysts for reminiscence, reflection and conversation
- identify and explore intergenerational differences in infant-feeding beliefs and practices from the perspective of grandparents, to inform development of the exhibition.

In keeping with the exploratory nature of the intervention, the study did not seek to explore the impact of the exhibition on attitudes or beliefs.

Methods

Members of the research team took on the dual role of participant–researchers. Field notes (made by the team during and after the exhibition sessions) and visitor feedback cards were used to develop a descriptive overview of the number and variety of visitors approaching the stand, and to capture observational data relating to participatory outcomes. Field notes were also used to record visitor reactions to the exhibition as a whole and interactions with the artefacts on display. Observations were intended to provide an overview of the diversity of experiences and beliefs about infant feeding volunteered by visitors; the artefacts that drew frequent visitor attention; differences in the way visitors approached different artefacts (for example, studying items closely, touching, picking up, turning over in hands, holding at a distance or holding in relation to the body as if to use); and content and type of conversations relating to specific

objects (knowledge-seeking, reminiscence, reflection and storytelling). To capture an overall impression of how the exhibition was being received, bilingual visitor feedback cards, placed on the stand, asked: 'Please tell us what surprised or interested you most about the exhibit on the social history of feeding babies? Please say why.' They also requested demographic information about the visitors.

Semi-structured interviews were conducted by Heather Trickey, Laurence Totelin and the research assistant in English or Welsh with visitors who self-identified as 'a grandparent'. Participants were informed that the aim of the study was to find out what visitors thought of the exhibition, about experiences of feeding babies in previous decades and about changing beliefs and practices. Participants gave written consent for audio-recording and for anonymized interview data to be used in the analysis. The interviews were conducted in a nearby 'pod' (located within ten feet of the stand). Interview schedules were designed to last 20 minutes – a relatively short intended time frame that took account of the wider Eisteddfod context and the likelihood that participants would want to re-join their families or move on to the next exhibit.

The schedule of interview prompts was devised to elicit personal and family feeding history, current and past roles in relation to grandchildren and/or great-grandchildren and overall responses to the exhibition and to notable artefacts. The interview was predominantly respondent-led, but with an emphasis on exploring intergenerational change in beliefs and practices and the impact of changes on their grandparent role. Interview prompts were used with considerable flexibility to suit the exploratory nature of the research questions.

Ethical approval for the study was provided by the School of History, Archaeology and Religion, Cardiff University.

Data gathered through interviews, feedback cards and researchers' field observations were considered under a single analytical framework. Data were anonymized and interview data were transcribed verbatim; the interviews conducted in Welsh were also translated into English. Dates (date of birth, birth of children, grandchildren and so on) and feeding decisions relating to each follow-up interview participant were noted. Data were analysed thematically. This began with holistic coding to identify portions of text relating to predefined research questions and to capture an overall sense of contents. High-level etic codes included 'responding to the exhibit', 'changing feeding norms' and 'intergenerational influence'. Codes were also developed for data relating to specific artefacts. The interview transcripts tended to be structured as generation-by-generation feeding narratives; this led to the introduction of codes relating to the experiences of different generations within the family. A further stage of *in vivo* coding, using a line-by-line method, led to the addition of codes arising from keywords and phrases in the data. Key themes were explored through the use of thematic frameworks and concept maps. Coding of all portions of the data were agreed by at least two authors.

Etic and Emic codes

Codes are used to identify patterns in qualitative data and form a basis for subsequent analysis. *Etic* codes are developed from existing theory and hypotheses and cohere with a prior investigative focus. *Emic* codes are developed *in vivo* from participants' own words, reflecting participants' own priorities and experiences.

Table 1: Frequently held artefacts and their roles as prompts for reflection and learning

FREQUENTLY HANDLED ARTEFACTS		INTERACTION WITH THE ARTEFACT AT THE STAND				CONTRIBUTION TO EMERGING 'THEN-NOW' THEMES IN INTERVIEWS		
Material	Country and date	Reminiscence, personal experience and family storytelling	Reflections relating to material culture	Then-now comparisons: products and practices	Reflections on public health policy	Changing attitudes to feeding in public places	Changing advice	Changing experience of maternity care
		Feeding bottles		Allenburys Hygienic Feeder, with teat and valve, in its original box.	UK Early twentieth century	✓✓	✓	✓✓
Glass and rubber	UK 1870–1901	✓	–	✓✓	✓	–	✓	✓
Glass and ceramic	UK 1870–1901	✓	–	✓	✓	–	✓	✓
Glass	UK USA 1920s	✓	–	✓	✓	–	✓	✓
Glass and rubber	USA 1940s–1950s	✓	–	✓	✓	–	✓	✓
Formula tins		National Dried Milk. Initially available via ration coupons. Product developed during WWII, distributed by the Ministry for Food.	UK 1947–76	✓✓	✓✓	–	✓	✓
Tin	UK 1950s	✓✓	✓✓	✓✓	✓	–	✓	✓
Tin	UK 1950s	✓✓	✓✓	✓✓	✓	–	✓	✓

Breastfeeding-related objects	Wearver and Faultless' breast-pump, in its original box.	Glass and rubber	USA Patented 1916	-	-	√	-	√	-	√
	Dr Wansbrough's Metallic Nipple Shields. These are 'recommended by the most eminent medical men for the prevention and cure of sore nipples'.	Lead	UK 1880-1900	-	√	√	√	-	√	√
	Photo of a Welsh woman carrying her baby in a shawl.		UK (Wales) Mid-twentieth century	√√	√	√	√	√	√	√
	Welsh nursing shawl (<i>siol fagu</i>).	Wool	UK (Wales) Mid-twentieth century	√√	√	√	√	√	-	√
	Collection of reproductions of paintings representing a mother breastfeeding. In most cases, the mother is the Virgin Mary.		Europe Middle Ages to 1978	√	-	√	-	√	-	-
	Collection of vintage breastfeeding leaflets, formula adverts and baby-bottle adverts.		UK, Europe and USA 1850s-1980s	-	√	√	√	√	√	√
Art										
Information, advertisement,										

Key: √ – sometimes observed to act as a prompt; √√ – frequently observed to act as a prompt

Findings

Over three days, around 180 visitors directly interacted with the exhibition stand. Visitors tended to come in family groups or as groups of friends, although some did visit alone. At any one time the stand had up to 15 visitors, and it was rarely empty. Visits lasted between 5 and 45 minutes, and nearly all visitors viewed and handled artefacts. Artefacts prompted a range of responses (see Table 1). Types of conversation prompted included: reminiscence and storytelling, contributory information about the life-worlds of the objects, 'then and now' comparisons between products and feeding practices and 'then and now' comparisons of social norms and public health policy.

Twenty face-to-face interviews were conducted with 16 grandmothers, 3 grandfathers and 1 father who self-categorized himself a 'grandfather' for the purposes of the interview. Thirteen interviews were conducted in English and seven in Welsh. Interviews lasted between 8 and 34 minutes. Interview participants were aged between 47 and 82; two interview participants were born in the 1930s, eight in the 1940s, four in the 1950s and six in the 1960s. Of the 16 grandmothers interviewed, 9 described positive experiences of breastfeeding over long durations, 5 recalled short-term and negative personal breastfeeding experiences and 2 had planned and initiated formula feeding from birth. Participants varied in the extent to which they were directly involved in the upbringing of their grandchildren. Many grandparents lived near to at least one set of grandchildren; two grandmothers were living-in and providing daily support with childcare. Others were directly involved in providing childcare on a regular basis, on specific days of the week or at weekends.

Grandparents described ways in which they had influenced and supported the feeding decisions of younger generations within the family, particularly their own daughters' decisions. Grandparents often justified and explained their daughters' decisions to formula feed by pointing to a lack of professional support and to specific feeding difficulties that their children had been unable to overcome. Stories of unsuccessful breastfeeding attempts sometimes ended on a positive note, with the participant reflecting that formula feeding was more convenient or 'right for them'. Several participants believed that formula feeding made it easier for fathers or grandparents to provide practical help with feeding, and to spend time getting to know the baby. One participant felt that breastfeeding would have been an impediment to her positive relationship with her grandchild:

Ever since he was four months ... I've had him for weekends. So if mum had been breastfeeding ..., me and [baby's name] have got a fantastic relationship, he loves coming to stay ... so if she had been breastfeeding I wouldn't have had that chance.

(Grandmother, aged 47; talking about grandchild born in 2009)

Grandparents also described a range of ways in which they provided support for breastfeeding. Grandparents who had themselves formula fed talked about giving encouragement and expressing their admiration. Grandmothers who had themselves breastfed felt able to provide encouragement to persevere through breastfeeding challenges. One grandmother, whose personal story had involved circumventing normal hospital practice (such as taking babies away at night) by having her baby at home, described how in the 1980s she had become directly involved in advocating for better health professional support to help her daughter breastfeed. Two grandparents who had themselves had positive breastfeeding experiences described the importance of communicating 'pleasure'. There was a sense that this positive 'benefit' can sometimes be difficult to articulate:

RES: I found such a lovely experience cuddling my baby. I mean was it a sexual experience? No, but it was a very nice feeling. I thought the mothers are missing out on this lovely, lovely feeling, I felt so close to my baby and err, you know it was, it was I love to hear the baby go glug, glug, glug ...

INT: What I notice when you are talking about it is that you are smiling a lot ... [laughter] ... and also you are doing this with your hands [cradling gesture, more laughter] ... you know, almost like you are holding a baby in your hands ...

RES: It's all sorts of things. But, you know, these mums are missing out on this lovely feeling. This closeness with the baby [laughs].
(Grandmother, aged 82; describing feeding experiences dating from 1956)

Several grandparents who had positive memories of their own children being breastfed said that they tried to ensure that their daughters and daughters-in-law felt relaxed and able to breastfeed when they visited. They saw their own accepting attitude as a form of encouragement and support.

Engaging with the exhibit

The exhibition attracted parents and grandparents with a range of personal feeding experiences. Many expressed strong positive and negative feelings about breastfeeding and formula feeding, usually arising from personal experience. Several visitors assumed that the exhibition had an underlying agenda to promote breastfeeding, particularly if they had themselves breastfed. This perception tended to be reflected in positive terms. For example:

This debate is so important but shouldn't need discussing at all. I couldn't think of anything more natural to do.
(Feedback card response, mother, aged 44+)

No negative feedback comments (formal or informal) were received to suggest that any perceived breastfeeding promotion agenda was dissuading visitors from interacting with the exhibition. While visitors did tell personal feeding stories, which had emotional content and involved explanation and justification of decisions, artefact-focused questions and discussions tended to be more neutral. Mothers and grandmothers who had themselves bottlefed were observed to compare the brands on display with the brand of formula milk that they had used or were currently using. Bottles and tins prompted observations about changes in the instructions for making up feeds, in health-related claims, in ingredients, in methods of sterilization and in expectations of hygiene in milk preparation.

Personal stories tended to centre on physical and emotional challenges arising from life with a new baby (whether breastfeeding or using formula milk), and the strategies that the teller had used to overcome them. Sometimes the artefacts themselves prompted visitors to recall detailed memories of babies being fed that dated back to distant childhood. For example, a picture prompted this response:

I have a picture of me getting raised in a shawl ... and my mum breastfeeding and my sister being breastfed. I remember my sister clearly in an old-fashioned crib and I was shaking it to try and get her to go to sleep. Also the problems my mum had taking her off breastmilk to give her milk. I remember that clearly.

(Grandmother, aged 78; born in 1938)

Older bottles prompted handed-down retellings of the feeding challenges faced by even earlier generations and the homespun methods used to overcome them. For example:

My mother was born at 7 months, without nails, and she had to be fed through a fountain pen filler ... she was raised by the fireplace in cotton wool and olive oil ... there weren't any incubators.

(Grandmother, aged 75; family story pre-1920)

Frequently, it was apparent that relatives accompanying the teller – including grown-up children and grandchildren – were hearing these stories for the first time. Several visitors had not previously heard their parents talk about how they themselves had been fed as babies – a finding reflected in the fact that 6 of the 20 grandparents who participated in follow-up interviews said they did not know how they had been fed.

While the conversations around the stand had emotional content, they did not tend to access emotional experience to a level that sometimes occurred in one-to-one follow-up interviews and, of course, intra-family conversation was dependent on family being present. A more structured approach to simulating conversation between visitors would be required if this aspect of shared learning from the stand is to be encouraged.

Older visitors were drawn to artefacts dating from the 1930s onwards that they recognized from their childhoods or from feeding their own babies – several asked about the value of those 'pieces of junk in the attic'. When facilitators probed these object-related memories, this often led to new insights about context and use of an artefact. A farmer's daughter, born in 1965, remembered that long after they had been used for feeding babies, her father used the 'banana-shaped' glass feeding bottles for feeding lambs (see Figure 2).

Figure 2: Allenbury's hygienic feeder, with original box

The bottle is double-ended and banana-shaped, as was typical in the first decades of the twentieth century; one end was fitted with a teat, the other with a valve – the design was intended to allow circulation of air



Credit: Laurence Totelin

Several interview participants talked about the residual value of empty formula tins as storage items. One grandparent, who had had her first baby in the mid-1960s, recalled that her own choice of formula brand was made on the basis that the product came in a useful tin rather than a cardboard package. One grandfather had a childhood memory (dating from the 1950s) of his mother upcycling used formula tins to make furniture (achieved by strapping several together and covering with cushion material). He also remembered playing with the empty tins:

I mean toys were in short supply in them days, we didn't have money to spend on toys, but you could make all sorts of things with [formula tins]. ... They were quite rigid, they would last.

(Grandfather, aged 68; memories from mid-1950s)

Object-prompted recollections volunteered by visitors were noted by the research team and then informally recycled as anecdotes within conversations between facilitators and subsequent visitors to the stand, who in turn would contribute their own memories. In consequence, over the three-day lifespan of the exhibition, information about the context and use of more familiar items became increasingly co-produced. The process of co-production occurred informally. Interview data suggested that older visitors have extensive experience that they are willing to share, with the potential to aid understanding of the cultural and health service context for the artefacts displayed.

Visitors showed particular interest in a series of glass bottles of different designs and dates, as well as a series of formula tins dating from the 1950s onwards. In particular, the impossible-to-clean so-called 'murder bottles' (Figure 3) and the lead nipple shields (Figure 4), were handled with fascinated horror.

Figure 3: Late Victorian baby bottles, one of which is labelled 'baby's favourite bottle'

A tube of glass and rubber was fitted through the top; these were difficult to clean and became known as 'murder bottles'



Credit: Laurence Totelin

Figure 4: Dr Wansbrough's Metallic Nipple Shields (original artefacts belonging to Professor Terry Turner)

The promotional material claimed these lead nipple shields were 'recommended by the most eminent medical men for the prevention and cure of sore nipples'



Credit: Laurence Totelin

Written feeding advice, taken from manuals (such as Mrs Beeton's *Book of Household Management*, 1861), from twentieth-century advertisements and from material originally designed to accompany the artefacts, encouraged participants to reflect on changes in expert advice and medical discourses. Advice that would now generally be understood to be unhealthy drew particular interest. For example, many visitors enjoyed the advice on the back of a Cow & Gate tin of formula (1950s) that 'with the approval of the doctor or nurse a teaspoonful of sugar may be added to each feed especially if baby is constipated' and that 'fruit juice should be given daily'.

The historical artefacts themselves were the main focus of interest, and for many visitors these were the only aspects of the exhibition stand with which they interacted. However, the comparative maps and graphs displayed around the stand prompted interest, and surprise that Wales has low breastfeeding rates compared to other English-speaking countries. In follow-up interviews, grandparents were asked to reflect on reasons for low breastfeeding rates, and several visitors included explanations in the response cards. It is difficult to judge the extent to which responses were influenced by the exhibition – visitors reflected that a health service culture that has historically favoured formula feeding might be important, as well as a lack of education about feeding babies and a wider culture of keeping the body hidden. Several visitors reflected that a lack of experience of breastfeeding within the family would make it more difficult for younger generations to have positive breastfeeding experiences. As one interview participant expressed it:

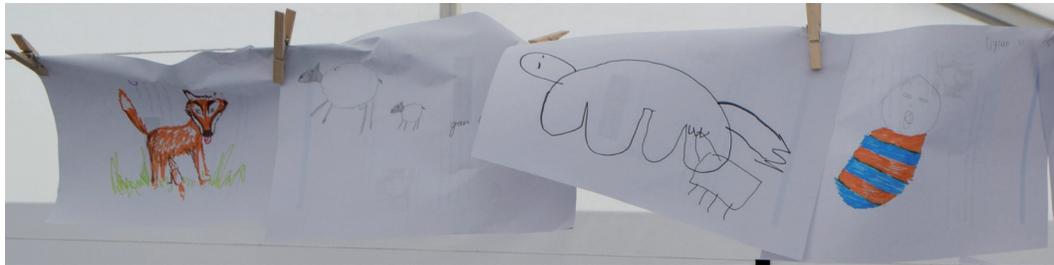
You could say it's like the Welsh language, really. If one generation doesn't do it and it's not passed down ... without being nurtured educationally, if you like, it's lost forever.

(Grandfather, aged 52)

This development study focused on the experience of adults, and particularly grandparents, rather than the experience of children. Children's activities were intended to be 'on theme', but their primary purpose was to be sufficiently engrossing to enable adult visitors to spend time with the images and artefacts and to enable

grandparents to be interviewed. No formal analysis of children's responses or drawings was conducted and children were not asked to give their consent for their work to be used for research purposes. Nonetheless, the research team noted that children asked to draw 'babies being fed' tended not to draw pictures of human babies being breastfed, most choosing to draw pictures of bottle-feeding or to draw pictures of animals feeding; this despite a context of books and images relating to breastfeeding. Twenty-five children contributed pictures to the exhibition (see Figure 5).

Figure 5: Children's drawings



Credit: Laurence Totelin

Themes for development

Three themes relating to intergenerational change emerged from the interview data: changing attitudes towards seeing breastfeeding (including changing attitudes to breastfeeding in public places), changes in the health service context and changes in advice about milk feeding and weaning.

Changing attitudes towards seeing breastfeeding

Three participants had childhood memories of breastfeeding as a normal part of family life. However, for most participants growing up in the 1940s, 1950s, 1960s and 1970s breastfeeding was either absent or hidden. Several participants remembered mothers with young babies separating themselves from the family to feed:

If you went to somebody's house, the mother would always be in the bedroom feeding or in the parlour feeding, they wouldn't be feeding ... You did it behind closed doors.
(Grandmother, aged 65; remembering experiences in the 1970s)

I was 14 or 15, I remember babysitting for a couple of hours. She'd come back to be with the little one. But she was always very private and she always went up and out to feed the baby. ... Obviously at that age you've done it all in Biology so you kind of know what's going on.
(Grandmother, aged 49; remembering experiences in the mid-1980s)

Coming across someone breastfeeding by accident was described as embarrassing. Breastfeeding was 'women's business', like menstruation, or even pregnancy, and was to be kept quiet – or it was something animals did. As an older child, seeing a stranger breastfeeding in public was rare, shocking, funny or weird. As a result, several participants came to feed their own babies without experience of ever having closely observed a baby being breastfed. Two participants explained that they could not

themselves have breastfed because they would be living with their in-laws and there would have been no place to hide.

All the participants who discussed feeding in public places said that they thought increased acceptance was a good thing. Many participants explained that their outlooks had changed when they had their own babies or since their children had had babies. For a few participants, positive attitudes to seeing younger women breastfeed were internalized: it 'makes me so happy', 'I want to say good for you'. However, for others, feelings were conflicted; participants tended to feel on the one hand that women had a right to breastfeed in public because breastfeeding was 'natural', but on the other to express boundaries around what they considered to be acceptable. For some, breastfeeding in public places was linked to being 'hippy', 'natural' or 'liberated', which was acceptable if the mother was 'being discrete' but not if it tipped into exhibitionism – characterized by showing flesh, feeding older children or feeding when other children are present.

A changing health service context

Taken together, grandmothers' feeding accounts told a story about themselves as new mothers either falling in line with, or fighting, whatever health service feeding regimen happened to be normal at that time. Many accounts attest to the powerful influence of 'just what was done'. Health professionals were highly influential, and in some cases were frightening figures. With 20 interviews it is not possible to construct a meaningful timeline, but the accounts are broadly consistent with a 1950s and early 1960s service focus on getting mothers to start breastfeeding before moving on to formula milk, while by the late 1960s and 1970s, formula feeding had become the hospital-supported normal practice:

We were all expected to start breastfeeding, yes, and then the bottle was introduced. For ten days there were big efforts to encourage, to help, to expect mothers ... the assumption was, that's what you did, you breastfed.
(Grandmother, aged 84; own babies born in the 1950s)

Well I wanted to breastfeed, but in the hospital in Bangor, no one breastfed ... I failed, I didn't have any milk ... I was getting worked up because everyone else was taking the pill to stop the milk, and I wanted to feed and I failed, so I had to use Cow & Gate [laughs] ... It was some sort of nuisance when you breastfed because everyone had breakfast in the morning and I was ready to feed.
(Grandmother, aged 70; stopped breastfeeding first baby in hospital in 1971)

Participants who had wanted to breastfeed in the 1960s, 1970s and 1980s, but found that they could not, expressed predominate feelings of disappointment, frustration and shame. In these accounts, a sense of having been 'let down' intermingles with feelings of personal failure and loss, as, for example, in this touchingly understated account of a woman from a South Wales mining family who had never seen a baby being breastfed when her own baby was born:

Well, you were just sitting on the ward and you were expecting the baby just to latch on ... there was no sort of forehand ... no instructions, no classes. I had no knowledge, they were all bottle feeding ... I think I was the only one probably opted for breastfeeding ... and just a lot of, you know, crying babies, so I thought, oh well ... feeling, almost inadequate really.
(Grandmother, aged 69; memory from 1970)

Participants recognized that for modern parents the advice context has shifted back towards recommending breastfeeding. However, they did not always perceive this to have been followed through in a way that translated into adequate breastfeeding support for their children. In particular, much shorter hospital stays and 'busy' midwives were seen to be present-day service barriers to successful breastfeeding.

A changing advice context

Participants talked about the ways in which advice had changed since their own babies were young, and several reflected that the advice seemed to be continually changing. Grandparents' own feeding accounts included practices that they acknowledged had been ill-advised or of their time – 'you wouldn't do it now'. These practices were often related with wry humour:

Give the babies a little tot of gin ... it'll make them sleep through the night ... that would have been when I was having mine, the late fifties, early sixties.

(Grandmother, aged 86; babies born in 1950s)

However, there were many areas where grandparents were less sure that advice had changed for the better. One participant said that she thought the 'breast is best' message was insufficiently nuanced to meet her daughter's need to return to work. Some felt that there was an over-reliance on 'experts' to determine how much formula milk or solid food babies should have, meaning that babies were sometimes unnecessarily hungry. Others said that they thought there was too much focus on hygiene, and several considered the 'rules' for sterilizing bottles to be unhelpful:

Now you're not supposed to make 'em up, but I used to make mine up all ... for the whole day and keep 'em in the fridge ... at least when you've done it at home ... everything's sterilised. But now you take your powder, where's your water getting boiled? ... Here ... you'd have to go to a coffee place to get your ... what's been standing in these machines all day long. ... So, I told [daughter], and she used to make hers up at home.

(Grandmother, aged 73; babies born in 1960s)

Several participants, often concerned to lessen a burden on their children, described instances in which they had suggested to their children that the rules were too inflexible and could be ignored. One grandmother who regularly cared for her grandchildren indicated that she tended to make decisions based on what she had done with her own children.

Discussion

The study confirmed that non-directive, artefact-based approaches can provide openings for discussion around sensitive public health issues, in this case infant feeding, and demonstrated the potential for an exhibit to act as a safe space for reminiscence and discussion, attracting visitors of all ages and with a range of experiences. The exhibition demonstrated that where historical artefacts exist, and health messages have changed over time, an exhibition of artefacts can act as prompts for reflection on those changes. However, the study has several limitations. The profile of participants was not representative of the general population in Wales: Eisteddfod visitors are predominantly Welsh-speaking and willing to afford the entrance fee; the nature of the exhibition space (with many stands to choose from) meant that within the Eisteddfod population the visitor group was self-selecting, and our interview sample may have

been further biased towards individuals with particularly strong views. This may limit the generalizability of the findings.

The study confirmed that storytelling between new grandmothers and their children about feeding experiences can provide new insights into the circumstances that affected past experiences. Previous studies indicate that storytelling can enhance lay support if used reflexively (Grassley and Eschiti, 2011). This study suggests that the role of artefacts as 'personal objects' (Simon, 2010: Chapter 4) may mean that they act as prompts for stories that would otherwise remain untold. The study elicited a diverse range of feeding narratives – seeing it as complicated, straightforward, satisfying, disappointing, formula-milk focused and breastfeeding focused. However, the brief conversations observed at the exhibition stand rarely had the emotional depth that was subsequently revealed in the one-to-one interviews. It may be that visitors felt 'able to bring as much or as little of themselves to the fore' as they were 'comfortable with' in the conversations at the stand (Fisher *et al.*, 2016), and that additional approaches to enable deeper sharing would be needed to encourage visitors to discuss their own experiences in detail. One way of doing this would be to encourage visitors to complete a 'family feeding history template', with spaces to add what they know about how they and their parents were fed. This might act as a more explicit prompt for reflection and discussion about changes in practices through the generations, and might help visitors to identify (perhaps surprising) gaps in their knowledge.

The artefacts seemed to act as debriefing aids, and to improve awareness of the wider context for feeding decisions. Their utility with respect to these functions could be explored through extension to those in professional support roles. Midwives play a key role in supporting mothers to establish breastfeeding (Swanson *et al.*, 2006; Britton *et al.*, 2007) and Unicef Baby Friendly standards emphasize the importance of midwives having 'meaningful conversations' with parents about their feeding decisions (Unicef UK Baby Friendly, 2016c). Student midwives are not immune from the wider context of disappointment and lack of confidence in breastfeeding, or from a public understanding that mothers make 'choices'. Midwives' support for mothers may be influenced by their own beliefs and practice (Baker *et al.*, 2004). Subjective belief may play a more important role than evidence-based education in influencing guidance (Simmons, 2002). Approaches to midwifery education that facilitate a change in underlying values and beliefs alongside a change in knowledge will be necessary to ensure improvements in breastfeeding support, but also perhaps other aspects of care. Future potential includes exploring using the exhibition as a non-directive teaching aid through integration with the Unicef UK Baby Friendly Initiative University Standards programme (Unicef UK Baby Friendly, 2016a).

Local social attitudes and expectations about how women feed their babies when 'out and about' matter. Recent research conducted in a low-income Welsh valley-town community indicates that ambiguous or negative attitudes to breastfeeding in public places are a major barrier to decisions to breastfeed (Cork, 2013; Cork, 2014). The study revealed ambiguous attitudes to breastfeeding in public places among older participants. Grandparents are not alone in experiencing complicated personal responses, but grandparents are more likely to have been brought up with a universal understanding that breastfeeding should happen in private. For people who grow up among such attitudes, acknowledging women's rights to breastfeed in public places itself represents a big shift. Changing underlying responses to the sight of women breastfeeding will be more complicated, but it is these responses from social network members that directly affect new generations of mothers. Providing opportunities to reflect and discuss feeding in public places, and enabling people to contextualize

their responses, may be helpful. This strand of the exhibit could be developed further, drawing on older visitors' memories of seeing or not seeing babies being fed, and of their own experiences of feeding when out and about.

The history of infant feeding has rarely been examined in a museum/exhibition context, and the social history of infant feeding in the UK remains largely unwritten. Participants' feeding narratives illustrated the impact of the flux in health service context, in expert advice and in changing ideas of 'normal' over the past century. Exploring and communicating the social history of infant feeding may help raise awareness of social and cultural constraints on feeding decisions, in line with the Unicef UK Baby Friendly Call to Action, and help today's parents understand the worlds that their parents and grandparents inhabited and the ways in which they were different from their own.

The exhibition itself might be strengthened by taking a timeline approach to presenting changes in maternity practices, incorporating objects, text, personal stories and perhaps video clips, demonstrating change up to the present day. However, there is a danger that a more structured timeline approach becomes too didactic and information-focused. Careful consideration needs to be given to whether and how such an approach can be incorporated in such a way that the exhibition retains its friendly, object-focused, 'flea market' appeal. Memories volunteered by visitors expanded the team's understanding of the artefacts and their wider social context. The exhibit could be developed to further encourage and capture these vignettes from family history. This would enhance, diversify and personalize the exhibit, exposing audiences to different voices and to content that could not be created by facilitators alone (Simon, 2010: 203), and it might help visitors to contextualize exhibits within the wider social context for decision-making. For example, memories associated with specific artefacts could be presented with information alongside. Using older people's accounts may also help convey normal and uncomplicated breastfeeding experiences in the past, which did not require equipment and thus are more difficult to represent through artefacts. A 'memories wall' might be used to encourage visitors to contribute their own stories.

The exhibition suggested that historical artefacts, which are currently seldom used in a public health education context, can provide a useful medium through which to engage the public in conversation, and stimulate individual-level reflection, on issues of public health concern. Visitors viewed and handled the artefacts and contributed insights about their use, as well as stories based on their own experience, helping to place the exhibits in their socio-historical contexts. However, while some mothers who breastfed indicated that they felt supported by the exhibition, it is not clear that visitors felt challenged in their perceptions and beliefs. Further work would be required to explore whether (and by which mechanisms) historical artefacts might contribute to change in behaviours or attitudes.

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