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Abstract

Baby care books that promote strict infant care routines are popular but little research has considered their impact upon maternal infant care behaviours. We explored whether mothers who have read these books guide their infant care behaviours based on their concepts, and how this is associated with infant feeding, night time care, and response to infant's needs. Three hundred and fifty-four UK mothers with a baby aged 0–12 months completed an online questionnaire exploring use of baby care books, motivations for use, whether guidance was followed, and infant care behaviours. Mothers who read the books were drawn to them for information about how to settle their infant, infant sleep and infant feeding behaviour. Those who read the books were less likely to breastfeed, feed responsively, have their infant sleep in the same room, cuddle their infant to sleep, or respond promptly to infant cries. Although the causality between reading these books and care cannot be determined through this study design, and is likely bidirectional with some reading the books to confirm existing preferences, around 25–40% of mothers noted the information determined their care decisions. Regardless of specific causal pathways, there is an association between these books and behaviours that go against infant feeding and responsive care recommendations. Understanding what drives mothers to follow these books, and increasing support for new mothers in these areas is important. The findings will be important for those supporting mothers in the perinatal period in starting conversations around responsive infant care.

Key words; Infant routine; Breastfeeding; Infant sleep; Infant crying; Baby care books; Safe sleep

Introduction

Many parents turn to popular 'baby care' books to seek advice on how to best care for their infant (Hardyment, 2007). Rather than focusing on practical infant care (e.g. bathing, feeding, or changing a nappy), these books tend to be based around desired infant behavior and guidelines for how parents should interact with their baby. Although a range of books promoting different approaches are available, many encourage parents to place their infant in a fixed routine for feeding and sleep (e.g. Ford, 2013; Hall, 2010; Hogg, 2005). Common themes include leaving an infant to cry for varying durations before responding to them, placing an infant to sleep in whichever room the mother feels is best, and feeding to a routine.

Despite the popularity of these books, there is a dearth of research into their impact upon maternal and infant physical and psychosocial outcomes. We know that positive early attachment is associated with the strongest social, educational, physical, and emotional outcomes (Gaertner, Spinrad, & Eisenberg, 2008). We also know that responding to an infant's needs in a prompt and appropriate way is a central element of developing a positive attachment relationship (Evans & Porter, 2009). Yet many of the themes in these books oppose these responsive interactions to different degrees (Connell-Carrick, 2006; Ramost & Youngclarke, 2006).

Anthropological studies show just how normal frequent infant biological needs are in the early weeks and months of life including waking often at night (McKenna, Ball & Gettler, 2007), feeding frequently and irregularly (Barr, Konner, Bakeman & Adamson, 1991), being

held the majority of the time by a caregiver (Konner, 1977; Trevathan 2010), and being kept in close contact at night (Ball & Volpe, 2012). Numerous studies have shown that in WEIRD cultures [Western, Educated, Industrialised, Rich, Democratic] (Henrich, Heine & Norenzayan, 2010) mothers respond to their infant needs far less frequently than in many other cultures (Miller & Commons, 2010), but infants still have the same physiological needs regardless of the culture they are born into.

Previous research has shown the importance of responding to these needs. Allowing an infant to cry for an extended period of time can raise stress hormone levels (Engert et al, 2010; Stewart 2017), which may programme the nervous system to be over stimulated (Loman & Gunnar, 2010). Conversely, infants who are kept close to their caregivers cry less frequently than those who are separated (Maute & Perren, 2018; St James-Roberts et al, 2006). A small randomized controlled trial found that 6-week-old infants who were carried frequently during the day cried and fussed 51% less between the hours of 4pm - midnight (Hunziker & Barr, 1986). Similarly in a more recent small scale study when infants were placed in an infant carrier and their mother walked around, their crying and movement was more likely to stop, and their heart rate decreased (Esposito et al, 2013).

In terms of sleep, we know that infants are safest sleeping in the same room as their mother, reducing the risk of Sudden Infant Death Syndrome (SIDS) (Tappin, Ecob & Brooke, 2005; Ball & Volpe, 2013). Sleeping close to the mother also helps to regulate infant breathing, heart rate, and temperature (Baddock et al., 2019). Sleeping and breastfeeding are also interlinked. Infants who co-sleep (Ball, Howel, Bryant, Best, Russell & Ward-Platt, 2016; Bovbjerg, Hill, Uphoff & Rosenberg, 2018) and feed frequently at night (Vieira et al,

2014) breastfeed for longer. Physiologically, responsive, frequent feeding enhances breast milk supply (Jonas & Woodside, 2016), although trials in this field examining impact of feeding style upon milk supply are limited and inconclusive (Fallon et al, 2016).

Conversely, attempting to schedule or limit feeds is associated with perceived low milk supply (Brown, Raynor & Lee, 2011) and a shorter breastfeeding duration (Brown & Lee, 2012; Brown & Arnott, 2014; Vieira et al, 2014). Although not all research is conclusive, formula supplementation and pacifier use are also associated with suboptimal breastfeeding behaviour and a shorter breastfeeding duration (Dewey, Nommsen-Rivers, Heinig & Cohen, 2003; Chantry et al, 2014; Buccini, Pérez-Escamilla & Venancio, 2016), potentially because feeding cues are missed.

So, do the instructions in baby care books that promote strict feeding and care routines affect maternal caregiving behaviours and interactions? How do these books impact upon maternal responsivity, breastfeeding, and night time care – aspects that we know are protective for infants? The aim of the current research was therefore to explore how many mothers use baby care books that promote strict routines, why they followed them, and the impact of these books upon maternal decisions and behavior.

Methods

Participants

Mothers with a baby aged 0 – 12 months old completed a questionnaire exploring their use of early parenting books. Exclusion criteria included multiple birth, premature or low birth weight infant, inability to consent, and significant infant or maternal health issues. All

participants were based in the U.K. and indicated this by providing the first three letter of their U.K. postcode. Full ethical approval was gained from a University Research ethics committee and the research was carried out in line with the Declaration of Helsinki and in accordance with the ethical standards of the American Psychological Association.

Participants were recruited through local parenting groups and online sources e.g. parenting forums and social media parenting groups. For the face-to-face groups, contact was made with the group leader who acted as a gatekeeper distributing and collecting questionnaires before returning them to the researchers. Completed questionnaires were sealed in envelopes to increase anonymity. Participants could also directly send the questionnaire back to the researcher. The paper questionnaire contained details of how to complete the questionnaire online if preferred.

For the online groups, adverts were placed on online parenting forums (e.g. mumsnet and netmums). These websites have dedicated research boards on which researchers are permitted to post. Interested members can read the post and decide whether to participate with no pressure from the researcher. Contacts made through social media forums also acted as gatekeepers, sharing the information with others, including face-to-face groups linked to their online group.

To advertise, a post was placed on each board with information about the background to the study, methodology, and how to take part. If they wished to do so, participants could then click on a link that took them to a questionnaire, hosted on the platform Survey Monkey (SurveyMonkey Inc., San Mateo, California, USA). There, further detailed

information about the study was provided alongside consent questions and details of how to contact the researcher if needed. At this point, participants could also request a paper copy of the questionnaire. Once those had been completed and agreed, the survey opened. Participants were informed that once they submitted their responses they could not be removed from the data set. Once completed a debrief statement was given, explaining the study, thanking them for their participation, and giving them contact details or support organisations if needed.

Similar adverts were placed on Facebook, using specific parenting groups, in particular local mother and baby groups. Permission was gained from the administrator of the group and as above an advert placed as a post. Respondents followed the link to Survey Monkey and the process was as above. This was a useful tool as it allowed contact with local mother and baby groups, of which the group leader was typically the administrator of the Facebook group. Information of the study could then be shared with non-Facebook members. Members of the groups often shared the survey post, acting as gatekeepers and building a snowball sample.

Measures

Participants completed a questionnaire hosted online by Survey Monkey that examined demographic background alongside their use of infant parenting books, reasons for doing so, and behaviours around feeding, infant sleep, and care.

To define 'infant parenting' books, parents were given the following description and then asked whether they had ever read any of these books during their most recent pregnancy or after their baby was born (even as a refresher from previous pregnancies):

'Many new parents read 'infant parenting books' that suggest different ways of caring for your baby e.g. in terms of how and when they might sleep, feed or behave. These books give advice on getting your baby to sleep, putting your baby in a routine or talk more widely about approaches to caring for your baby. For example popular types of this book include (but are not limited to) The Contented Little Baby, The Baby Whisperer, Save our Sleep, Contented baby care etc'.

For this study we would like you to think about this type of book and not books that consider how to practically care for your baby e.g. how to put a nappy on or to bathe them. Neither would we like you to think about books that examine how to breastfeed your baby or introduce solid foods or books that consider why breastfeeding is important or the history of feeding babies.'

If mothers identified as reading these books they were then asked to list what books they had read. If they identified with reading them but then listed books that were not this type then they were excluded from the analysis.

All participants completed a section examining their maternal care decisions. These behaviours were included due to their central themes in a range of baby care books that promote strict routines. Items included:

- Milk feeding: Breast or formula at birth, and if applicable breastfeeding duration and timing of introduction to formula milk.
- Feeding schedule: Routine or baby-led.
- Sleep location: In own room, in cot in mother's room, in side cot attached to bed, co-sleeping, or mix of co-sleeping and cot.
- How the infant fall asleep: Cuddled to sleep, fall asleep on own with no crying, let infant cry for a few minutes, ten minutes, more than ten minutes until responding, or does not respond to infant cries no matter how long.
- If infant cries in night what happens: Respond immediately, wait a few minutes, wait up to 10 minutes, wait more than 10 minutes, or do not respond.
- Day routine: Strict, loose, or none.

Those who had read any infant parenting book that promoted strict routines completed further sections exploring why mothers chose to use the books (e.g. for information about sleep, how to feed their baby, or infant crying), followed by a series of questions of the impact mothers felt these books had on their behaviour (e.g. whether the books led to mothers using a sleep routine). Responses were recorded via a five point likert scale [strongly agree to strongly disagree].

Data analysis

Data was downloaded from Survey Monkey into SPSS (IBM Corp. Released 2011. IBM SPSS Statistics for Windows, Version 20.0. Armonk, NY: IBM Corp.) and analysed using SPSS version 20. Books were examined to see which suggested following a strict routine for infant care. Where the books were unknown to the researchers, a copy was sought in order to

make a judgment. Books that were listed but did not fit the study criteria e.g. those that were more general baby care books rather than discussing approaches to care were discarded and rated as 'not read'. Researcher A initially rated books and agreement was sought with Author B. Agreement was found in all cases. Using this data mothers were coded into yes/no for having read this type of book, and the number of books each mother read totalled to give an overall score of exposure per mother.

Descriptive statistics were performed to examine maternal behaviour. Breastfeeding duration was coded into yes/no at birth and at two, and six weeks. The association between maternal behaviour for feeding, sleep, and response to infant crying decisions and reading infant care books (yes/no) was examined using Chi Square. One-way ANCOVA controlling for maternal age and education were also used to compare the number of books individuals had read by feeding, sleep, and response to infant crying groups.

Results

Three hundred and fifty-four mothers completed the questionnaire. The mean age of participants was 31.30 (SD: 4.99) with a range from 18 to 45. Mean number of years in education was 16.9 (SD: 2.60). Full participant details are shown in table one. Two hundred and fourteen mothers (60.2%) had read at least one parenting book, with the mean number of books mothers had read was 2.53 (SD: 1.48) with a range from 1 to 5.

Mothers who had read any baby care books were significantly older than those who had not read any [t (352) = 3.302, p = .001]. No other difference in maternal or infant background

was seen between those who did or did not read the books. Maternal age was therefore controlled for in future relevant analyses.

Reasons for using the books

Participants responded to a series of statements around why they read infant parenting books using a five point likert scale [strongly agree to strongly disagree]. The items, mean score, and percentage strongly agreeing or agreeing with each statement can be seen in table two. Infant sleep and routine items were the most common, although around a quarter responded to items around how they should interact with their baby.

Perceived impact of using the books

Next participants were asked whether they felt the books had any impact on the way in which they cared for their infant using a five point likert scale [strongly agree to strongly disagree]. Questions examined whether mothers felt the books encouraged certain behaviours, whether this made it easier, whether they felt it impacted on their behavior, and finally if they perceived this to give them additional free time. Overall, a range of responses were seen but around a quarter of mothers responded that the books directly led their behaviour (table three).

Maternal behaviour

The association between reading the books, and the number read, was examined for maternal feeding, sleep, and response to infant crying groups. All results for sections one – three below are shown in table four.

1. Infant feeding

Significant associations were found between reading the books and infant feeding method at birth. Mothers who read the books were significantly less likely to breastfeed at birth, 2 weeks, or 6 weeks compared to those who had read none. Exploring number of books read, no significant difference was found in those breastfeeding or not at birth, 2 weeks, or 6 weeks.

Mothers were also asked whether they generally fed their baby to a strict routine or on demand. Those who had read the baby-care books were significantly more likely to feed their baby to a routine compared to those who had not, although only 19.8% of the sample overall typically fed their baby to a strict routine. No significant difference occurred in number of books read between those who fed their baby to a routine or not.

2. Sleep

Parents were asked how their baby fell asleep. A significant association was found between mode and baby-care books. Those who had read the books were significantly less likely to cuddle their baby to sleep and more likely to let them cry for a few minutes compared to those who had not. Parents who had read the books were also less likely to respond to their baby immediately if they cried at night.

In terms of where the baby slept, those who had read a baby-care book were more likely to have their infant sleep in their own room compared to those who had not, and significantly less likely to ever co-sleep.

A one-way ANCOVA found a significant difference in number of books read by how infants were put to sleep [F (3, 352) = 7.948, p = .006]. Post hoc bonferroni tests showed a significant difference in number of books read between those who waited 5 – 10 minutes, more than 10 minutes, or did not respond compared to immediate or response within a few minutes. Those who had read more responded less quickly. Number of books read did not significantly differ according to infant sleep location.

3. Daily routine

Parents were asked whether they followed a routine for their baby for sleep, feeding, and activity during the day. Those who read the books were significantly more likely to follow a strict or loose routine than those who had not. Number of books read did not differ significantly between routine groups.

Discussion

This paper explored the association between reading books that promote strict parenting routines and maternal decisions around infant feeding, sleep, and day-to-day care. Overall, mothers were drawn to the books for information about how to settle, interact with and feed their infant with around a quarter stating that their behaviour was directly changed from the information given. Within our sample of UK women, mothers who had read the books were less likely to breastfeed, respond to their infant's cries immediately, or have their infant sleep in the same room as them. They were also more likely to have a set infant feeding and day to day routine for their baby. We know that on a population level these behaviours are associated with less positive outcomes for infants, and therefore

understanding this association and its drivers is critical in understanding how we can better support new parents.

The observational nature of this data means that direction or causality cannot be stated for all associations. Like many behaviours, it is likely to be a combination of both seeking out confirmatory behaviour and behaviour being affected by what is experienced. Between 55 – 77% of mothers stated that they were drawn to the books to seek guidance on where their infant would sleep, how they should feed them, and how best to interact and respond to them. It is therefore possible that mothers who wish to adopt a strict routine are reading the books simply for further information and confirmation. Research highlights how mothers typically seek out validation for their parenting decisions rather than looking for new or competing information (Mansour & Francke, 2017).

However, our findings show that reading the books also directs maternal behaviour for at least a proportion of mothers. To seek further clarity on this association we directly asked whether the information in the books encouraged certain behaviours or affected maternal decisions. Almost half of mothers stated that the books encouraged them to put their infant in a sleep routine, a quarter to follow a feeding routine and not respond immediately to infant cries, and around 15% felt they promoted not always picking up or cuddling an infant when the infant cued for this to happen. These findings fit with previous research that explored how useful mothers found books that promoted strict routines, which highlighted that around 20 – 25% of mothers followed the information in such books finding it useful and effective (Harries & Brown, 2017).

Impacts that are direct e.g. a book suggesting that an infant should sleep in a different room, or opening the decision up to wherever the mother feels is best, can lead to behaviour being directly shaped. However, for others, the path will be less direct. Although many baby care books promote a routine for sleep and feeding, few directly tell mothers not to breastfeed; yet mothers who read the books are less likely to do so at birth, two or six weeks. There are a number of pathways to explain this.

Breast milk is produced on a supply and demand basis; the more an infant feeds, the more milk is produced and vice versa. Therefore, less frequent feeds can lead to a drop in milk supply (Dewey & Lonnerdal, 1986). Night time feeds are particularly important in the early weeks and months for milk supply, as prolactin levels are naturally higher at night (Wambach & Riordan, 2016). Indeed, mothers who breastfeed their infants to a strict routine are more likely to stop in the early days and weeks, and to report an increase in low milk supply, pain, and difficulty (Brown et al, 2011).

Given mothers who read the books were also less likely to breastfeed at birth, it is also likely that desire for a routine may lead to a decision to formula feed. Breastfeeding can be viewed as inconvenient due to the frequency of feeds and responsibility for giving them (Brown et al, 2011). Similar findings were reported in a study that explored milk feeding approach and whether mothers followed a baby or mother led routine for their infant. Mothers who followed a mother led routine were less likely to have initiated breastfeeding at birth (Brown & Arnott, 2014). However, caution must be taken with this finding as mothers may have read the books after their baby was born. Mothers who were already formula feeding may have been more likely to then consider reading the books.

Breastfeeding is also tied to other infant care behaviours. Mothers who co-sleep with their infants breastfeed for a longer duration (Blair & Ball, 2004; Ball et al 2016; Bovbjerg et al, 2018). Again, this may be a wider parenting style choice; mothers who plan to co-sleep during pregnancy are also more likely to plan to breastfeed (Ball et al 2016). However, infants who co-sleep feed more frequently than infants who sleep separately, suggesting that bed sharing may promote responsive night time feeding (Baddock et al., 2019; McKenna, Mosko, Richard, 1997). Practically this is likely due to proximity and ease of access to the breast. Indeed McKenna (2014) found that on average breastfed infants received 50-70% fewer feeds during the night if they slept 10 feet or more away from their mothers compared to infant-mother dyads within 10 feet of each other. This is not just limited to bed sharing. Infants who sleep in a different room are less likely to be breastfed, albeit causality cannot be determined; infants who are not breastfed may be easier to place in another room or placing infants in another room may damage breastfeeding (St James-Roberts et al. 2016).

As noted in the introduction, a wide body of evidence promotes a responsive mothering approach in early infancy, including on-demand feeding (preferably at the breast), sleeping in the same room as the infant, and reacting to infant cries and other needs in a timely and appropriate way. Whichever direction (or bi-direction) of the causality in this study, the findings identify an association between baby care books that promote strict routines and mothering approaches that are lower in nurture and response. Further understanding is clearly needed of what is motivating mothers to follow the guidance in the books.

It is possible that the shock of motherhood coupled with a lack of understanding of infant care plays a role. Many new mothers report feeling shocked at the intensity of infant needs and motherhood (Hollway, 2010), often feeling under informed as to what infant care really involved (Brown, 2016). Many interpret normal infant feeding and sleeping patterns as a sign something is wrong, feeling concerned that their baby should be in a routine (Arnott & Brown, 2013; Deave, Johnson & Ingram, 2008; McKenna & Gettler, 2016). Worries about infant sleep and the need to 'sleep through the night' are common (Tomori, Palmquist & Dowling, 2016). This can be exacerbated by the beliefs and behaviours of those around the mother, who believe the infant should be in a routine or that there is something wrong with the infant (Redesell et al, 2010).

A common response to a frequently breastfeeding infant is to worry that they should be in a feeding routine, or that milk supply is insufficient (Galipeau, Dumas & Lepage, 2017). Unfortunately, this often leads to attempts to extend the time in between feeds (Brown et al, 2011) or to offer a formula top up (Chantry et al, 2014), both of which can reduce milk supply. For sleep, many parents may try many different techniques such as pacifiers, stopping breastfeeding, or placing the infant in the other room – none of which have a consistent impact on improving infant sleep (Brown & Harries, 2015; McKenna, Ball & Gettler, 2007; Tomori, 2018). Likewise, interventions to reduce infant crying that involve reduced response to the infant do not have consistent results (Blunden, Thompson & Dawson, 2011; Douglas & Hill, 2013).

However, maternal desire for routine is also part of a bigger picture of a lack of support and care for new mothers. Many new mothers report experiencing significant stress, anxiety,

and loss of control during this period, feeling regret that they have lost their former lives and identity (Donath, 2015). Older, professional, and highly educated mothers can feel this change more strongly (Arnott & Brown, 2013) with increased risk of postnatal depression in this group (Leigh & Milgrom, 2008). Moreover, many mothers are dispersed from family and friends. Loneliness can exacerbate these emotions (Lee, Vasileiou & Barnett, 2017) but also lead to isolation in terms of a lack of information.

Parenting books may therefore provide a seeming solution for new mothers – providing both information, an 'expert' reassuring voice, and emotional support that mothers are doing things the 'right way'. However, although they do reassure some, many others who read them feel they have no impact and end up feeling increasingly confused, anxious, and as if they have failed; lowering their parenting self-efficacy and increasing their risk of postnatal depression (Harries & Brown, 2017). Likewise, attempting to instigate approaches that claim to solve infant sleep and crying issues can lead to increased maternal dissatisfaction and anxiety if they do not work (Blunden, Thompson & Dawson, 2011). Moreover, we know that when mothers stop breastfeeding before they are ready (a potential impact of following this strict feeding advice), they have an increased risk of postnatal depression (Dias & Figueiredo, 2015; Brown, Rance & Bennett, 2016). An approach that supports mothers to care for their infants in a way that fits their desired mothering style is needed.

The study does have its limitations. Although care was taken to collect a study sample covering a wide demographic, participants were self-selecting which as with many health and behavioural studies lends itself towards those that are older and higher educated, as

demonstrated by the demographic information presented in Table 1. Although a range of demographic groups did participate, care should be taken however in generalising to a wider population, especially one outside of the United Kingdom. We also did not collect data on ethnicity, home language or country of origin, all of which may have shown variations in the findings. Future research may wish to consider this.

Research does suggest that mothers who are older, with higher levels of education are more likely to follow infant routines (Brown & Arnott, 2014) and read baby care books (Harries & Brown, 2017) which may increase the proportion in the study who were following such advice. Moreover, as with many behavioural studies it is also likely that those with the greatest interest (at both sides of the spectrum) about the impact of infant care books may have chosen to take part.

The study also employed a retrospective design asking about mother's decisions through pregnancy (in terms of when books were potentially read) and up to 12 months old (in terms of infant care behaviours). Memory bias can occur based on current experiences. Knowledge about the outcomes of an event for example can affect memory of the situation leading up to that event (Pohl, Bender & Lachmann, 2002). However, a retrospective design is common in health research, and is typically shown to have good reliability and validity as an approach (Brigham et al 2010; Simpson et al, 2011) including for infant feeding recall (Li et al, 2005). Moreover, the period of recall was relatively short, or indeed current for some participants. Caution should however be applied to the findings.

Recruitment used online methods of data collection as its primary source. Although this method has received criticism in the past of recruiting an older more educated sample (Drentea & Moren-Cross, 2005), with the advance of the internet this is now less likely and research that has used both online and traditional methods finds no difference in outcome. It is possible that the snowball method of recruitment that this method lends itself to (from 'sharing' of posts amongst likeminded networks) may lead to a skewed sample. However, it is now a popular recruitment tool in health and social science research, and appears to lead to a similar sample demography to face to face data collection (e.g. Arden & Abbott, 2015; Brown, 2016; Porter & Ispa, 2013)

Limitations aside, the findings have important implications for those working to support new mothers in the postnatal period and to understand the support that they need. Infant care books may be appealing to mothers who are isolated, stressed, and anxious about caring for their infant but may have negative outcomes for mother and baby. Often the advice given does not work, and even when it does it appears to be associated with behaviours that go against infant care advice for sleep, feeding, and responding to infant needs. Further research and investment is needed to understand how best to support mothers to care responsively for their babies during this period, tackling the underlying factors that lead them to seek out such strict routines.

References

Arden, M. A., & Abbott, R. L. (2015). Experiences of baby-led weaning: Trust, control and renegotiation. *Maternal & Child Nutrition, 11*(4), 829–844.

Arnott, B., & Brown, A. (2013). An Exploration of Parenting Behaviours and Attitudes During Early Infancy: Association with Maternal and Infant Characteristics. *Infant and Child Development, 22*(4), 349-361.

Baddock, S., Purnell, M., Blair, P., Pesae, A., Elder, D., and Galland, B. (2019). The influence of bede-sharing on infant physiology, breastfeeding and behaviour: A systematic review. *Sleep Medicine Reviews, 43*, 106-117.

Ball, H., Howell, D., Bryant, A., Best. E., Russell, C., & Ward-Platt, M. (2016). Bed-sharing by breastfeeding mothers: who bed-shares, and what is the relationship with breastfeeding duration, *Acta Paediatrica, 105*(6), 628-634.

Ball, H. L., & Volpe, L. E. (2013). Sudden Infant Death Syndrome (SIDS) risk reduction and infant sleep location–Moving the discussion forward. Social science & medicine, 79, 84-91.

Barr, R. G., Konner, M., Bakeman, R, & Adamson, L. (1991). Crying in !Kung San infants: A test of the cultural specificity hypothesis. *Developmental Medicine and Child Neurology, 33*, 601-610.

Blair, P. S., & Ball, H. (2004). The Prevalence and Characteristics Associated with Parent-Infant Bed-Sharing in England. *Archives of Disease in Childhood, 89*, 1106-1110.

Blair, P. S., Mitchell, E., Fleming, P. J., Smith, I. J., Platt, M. W., Young, J.,…Golding, J. (1999). Babies sleeping with parents: Case-control study of factors influencing the risk of the sudden infant death syndrome. Commentary: Cot Death—The Story So Far. *BMJ, 319*(7223), 1457–1462.

Blunden, S. L., Thompson, K. R., & Dawson, D. (2011). Behavioural sleep treatments and night time crying in infants: challenging the status quo. *Sleep Medicine Reviews*, *15*(5), 327-334.

Bovbjerg, M. L., Hill, J. A., Uphoff, A. E., & Rosenberg, K. D. (2018). Women who bedshare more frequently at 14 weeks postpartum subsequently report longer durations of breastfeeding. Journal of midwifery & women's health, 63(4), 418-424.

Brigham, J., Lessov-Schlaggar, C. N., Javitz, H. S., Krasnow, R. E., Tildesley, E., Andrews, J., ... & Swan, G. E. (2010). Validity of recall of tobacco use in two prospective cohorts. American journal of epidemiology, 172(7), 828-835.

Brown, A. (2016). Understanding the relationship between breastfeeding and postnatal depression: The role of pain and physical difficulties. *Journal of Advanced Nursing, 72*(2), 273–282.

Brown, A., & Arnott, B. (2014). Breastfeeding duration and early parenting behaviour: The importance of an infant-led, responsive style. *PloS one, 9*(2), e83893.

Brown, A. & Harries, V. (2015). Infant sleep and night feeding patterns during later infancy: Association with breastfeeding frequency, daytime complementary food intake, and infant weight. *Breastfeeding Medicine*, *10*(5), 246-252.

Brown, A., & Lee, M. (2012). Breastfeeding during the first year promotes satiety responsiveness in children aged 18–24months. *Pediatric Obesity, 7*(5), 382–390.

Brown, A., Rance, J., & Bennett, P. (2016). Understanding the relationship between breastfeeding and postnatal depression: the role of pain and physical difficulties. *Journal of Advanced Nursing*, *72*(2), 273-282.

Brown, A., Raynor, P., & Lee, M. (2011). Maternal control of child-feeding during breast and formula feeding in the first 6months post-partum. *Journal of Human Nutrition and Dietetics, 24*(2), 177–186.

Brown, A., Raynor, P., & Lee, M. (2011). Maternal control of child-feeding during breast and formula feeding in the first 6months post-partum. *Journal of Human Nutrition and Dietetics, 24*(2), 177–186.

Buccini, G. D. S., Pérez-Escamilla, R., & Venancio, S. I. (2016). Pacifier use and exclusive breastfeeding in Brazil. *Journal of Human Lactation*, *32*(3), NP52-NP60.

Chantry, C. J., Dewey, K. G., Peerson, J. M., Wagner, E. A., & Nommsen-Rivers, L. A. (2014). In-hospital formula use increases early breastfeeding cessation among first-time mothers intending to exclusively breastfeed. *The Journal of Pediatrics*, *164*(6), 1339-1345.

Connell-Carrick, K. (2006). Trends in Popular Parenting Books and the Need for Parental Critical Thinking. *Child Welfare, 85*(5), 819-836.

De Carvalho, M., Robertson, S., Friedman, A., & Klaus, M. (1983). Effect of frequent breast-feeding on early milk production and infant weight gain. *Pediatrics*, *72*(3), 307-311.

Deave, T., Johnson, D., & Ingram, J. (2008). Transition to parenthood: the needs of parents in pregnancy and early parenthood. *BMC Pregnancy and Childbirth*, *8*(1), 30.

Dewey, K. G., & Lönnerdal, B. (1986). Infant self-regulation of breast milk intake. *Acta Paediatrica, 75*(6), 893–898.

Dewey, K. G., Nommsen-Rivers, L. A., Heinig, M. J., & Cohen, R. J. (2003). Risk factors for suboptimal infant breastfeeding behavior, delayed onset of lactation, and excess neonatal weight loss. Pediatrics, 112(3), 607-619.

Dias, C. C., & Figueiredo, B. (2015). Breastfeeding and depression: a systematic review of the literature. *Journal of Affective Disorders*, *171*, 142-154.

Donath, O. (2015). Regretting motherhood: a sociopolitical analysis. *Signs: Journal of Women in Culture and Society*, *40*(2), 343-367.

Douglas, P. S., & Hill, P. S. (2013). Behavioral sleep interventions in the first six months of life do not improve outcomes for mothers or infants: a systematic review. *Journal of Developmental & Behavioral Pediatrics*, *34*(7), 497-507.

Drentea, P., & Moren-Cross, J. (2005). Social capital and social support on the Web: The case of an internet mother site. *Sociology of Health and Illness, 27*, 920–943.

Engert, V., Efanov, S. I., Dedovic, K., Duchesne, A., Dagher, A., & Pruessner, J. C. (2010). Perceived early-life maternal care and the cortisol response to repeated psychosocial stress. *Journal of Psychiatry and Neuroscience, 35*(6), 370–377.

Esposito, G., Yoshida, S., Ohnishi, R., Tsuneoka, Y., del Carmen Rostagno, M., Yokota, S., ... & Venuti, P. (2013). Infant calming responses during maternal carrying in humans and mice. Current Biology, 23(9), 739-745.

Fallon A, Van der Putten D, Dring C, Moylett EH, Fealy G, Devane D. Baby-led compared with scheduled (or mixed) breastfeeding for successful breastfeeding. Cochrane Database of Systematic Reviews 2016, Issue 9. Art. No.: CD009067. DOI: 10.1002/14651858.CD009067.pub3.

Ford, G. (2013). *The New Contented Little Baby Book: The Secret to Calm and Confident Parenting.* New York: Berkeley.

Gaertner, B. M., Spinrad, T. L., & Eisenberg, N. (2008). Focused attention in toddlers: Measurement, stability, and relations to negative emotion and parenting. *Infant and Child Development, 17*(4), 339–363.

Galipeau, R., Dumas, L., & Lepage, M. (2017). Perception of not having enough milk and actual milk production of first-time breastfeeding mothers: Is there a difference? *Breastfeeding Medicine*, *12*(4), 210-217.

Hall, T. (2010). *Save Our Sleep: Helping Your Baby to Sleep Through The Night from Birth to Two Years.* London: Vermilion.

Hardyment, C. (2007). *Dream babies: Childcare advice from John Locke to Gina Ford*. London: Frances Lincoln Ltd.

Henrich, J., Heine, S. J., & Norenzayan, A. (2010). The weirdest people in the world?. Behavioral and brain sciences, 33(2-3), 61-83.

Harries, V., & Brown, A. (2017) The association between use of infant parenting books that promote strict routines, and maternal depression, self-efficacy, and parenting confidence. *Early Child Development and Care,* doi:10.1080/03004430.2017.1378650

Hogg, T. (2005). *Secrets of the Baby Whisperer: How to Calm, Connect, and Communicate with Your Baby.* New York: Ballantine Books.

Hollway, W. (2010). Conflict in the transitions to becoming a mother: A psycho-social approach. *Psychoanalysis, Culture & Society*, *15*(2), 136-155.

Hunziker, U. A., & Barr, R. G. (1986). Increased carrying reduces infant crying: a randomized controlled trial. *Pediatrics*, *77*(5), 641-648.

Ip, S., Chung, M., Raman, G., Chew, P., Magula, N., DeVine, D., … & Lau, J. (2009). Breastfeeding and maternal and infant health outcomes in developed countries. *Evidence Report/Technology Assessment*, *153*, 1-186.

Jonas W, Woodside B. Physiological mechanisms, behavioural and psychological factors influencing the transfer of milk from mothers to their young. *Hormones and Behaviour* 2016;77:167-81.

Konner, M. J. (1977). 'Infancy among the Kalahari Desert San'. IN: Leiderman, P. H., Tulkin, S., & Rosenfeld, A. (Eds.). *Culture and infancy: Variations in the human experience*. New York: Academic Press. pp. 287-328.

Lee, K., Vasileiou, K., & Barnett, J. (2017). 'Lonely within the mother': An exploratory study of first-time mothers' experiences of loneliness. *Journal of health psychology*, doi:10.1177/1359105317723451.

Leigh, B., & Milgrom, J. (2008). Risk factors for antenatal depression, postnatal depression and parenting stress. *BMC psychiatry, 8*(1), 24.

Li, R., Scanlon, K. S., & Serdula, M. K. (2005). The validity and reliability of maternal recall of breastfeeding practice. Nutrition Reviews, 63, 103–110.

Loman, M. M., & Gunnar, M. R. (2010). Early experience and the development of stress reactivity and regulation in children. *Neuroscience & Biobehavioral Reviews, 34*(6), 867–876.

Maute, M., and Perren, S. (2018). Ignoring Children's Bedtime Crying: The Power of Western-Oriented Beliefs. *Infant Mental Health Journal, 39*(2), 220-230.

Mansour, A., & Francke, H. (2017). Credibility assessments of everyday life information on Facebook: a sociocultural investigation of a group of mothers. *Information Research, 22*(2), paper 750.

McKenna, J. (2014). Night Waking Among Breastfeeding Mothers and Infants. *Evolution, Medicine, & Public Health, 2014*(1), 40-47.

McKenna, J. J., & Gettler, L. T. (2016). There is no such thing as infant sleep, there is no such thing as breastfeeding, there is only breastsleeping. *Acta Paediatrica*, *105*(1), 17-21.

McKenna, J. J., Ball, H. L., & Gettler, L. T, (2007). Mother-infant co-sleeping, breastfeeding and Sudden Infant Death Syndrome: What Biological Anthropology has discovered about normal infant sleep and pediatric sleep medicine. *Yearbook of Physical Anthropology*, *50*, 133-161.

McKenna, J., and McDade, T. (2005). Why babies should never sleep alone: A review of the co-sleeping controversy in relation to SIDS, bedsharing and breast feeding. *Paediatric Respiratory Review, 6*(2), 134-152.

McKenna, J., Mosko, S., & Richard, C. (1997). Bedsharing Promotes Breastfeeding. *Pediatrics, 100*(2), 214-219.

Miller, P. M., & Commons, M. L. (2010). The benefits of attachment parenting for infants and children: A behavioral developmental view. *Behavioral Development Bulletin, 16*(1), 1-14.

Moore, S. R., McEwen, L. M., Quirt, J., Morin, A., Mah, S. M., Barr, R. G., … & Kobor, M. S. (2017). Epigenetic correlates of neonatal contact in humans. *Development and psychopathology*, *29*(5), 1517-1538.

Morelli, G. A., Oppenheim, D., Rogoff, B, & Goldsmith, D. (1992). Cultural variations in infant's sleeping arrangements: Questions of independence. *Developmental Psychology, 28*(4), 604-613.

O'Connor, A., Jackson, L., Goldsmith, L., & Skirton, H. (2014). Can I get a retweet please? Health research recruitment and the Twittersphere. *Journal of Advanced Nursing, 70*(3), 599–609.

Porter, N., & Ispa, J. M. (2013). Mothers' online message board questions about parenting infants and toddlers. *Journal of Advanced Nursing, 69*(3), 559–568.

Ramos, K., and Youngclarke, D. (2006). Parenting Advice Books About Child Sleep: Cosleeping and Crying It Out. *Sleep, 29*(12), 1616-1623.

Redsell, S. A., Atkinson, P., Nathan, D., Siriwardena, A. N., Swift, J. A., & Glazebrook, C. (2010). Parents' beliefs about appropriate infant size, growth and feeding behaviour: implications for the prevention of childhood obesity. *BMC public health*, *10*(1), 711.

Richard, C. A., & Mosko, S. S. (2004). Mother-infant bedsharing is associated with an increase in infant heart rate. *Sleep*, *27*(3), 507-511.

Rudzik, A., and Ball, H. (2016). Exploring Maternal Perceptions of Infant Sleep and Feeding Method Among Mothers in the United Kingdom: A Qualitative Focus Group Study. *Maternal and Child Health Journal, 20*, 33-40.

Simpson, T. L., Galloway, C., Rosenthal, C. F., Bush, K. R., McBride, B., & Kivlahan, D. R. (2011). Daily telephone monitoring compared with retrospective recall of alcohol use among patients in early recovery. The American journal on addictions, 20(1), 63-68.

St James-Roberts, I., Alvarez, M., Abramsky, T., Goodwin, J., and Sorgenfrei, E. (2006). Infant Crying and Sleeping In London, Copenhagen and When Parents Adopt A 'Proximal' Form of Care. *Pediatrics, 117*(6), e1146-1155.

St James-Roberts, I., Roberts, M., Hovish, K., and Owen, C. (2016). Descriptive Figures For Differences In Parenting and Infant Night-Time Distress In The First Three Months of Age. *Primary Health Care Research and Development, 17*(6), 611-621.

Tappin, D., Ecob, R., & Brooke, H. (2005). Bedsharing, roomsharing, and sudden infant death syndrome in Scotland: a case-control study. The Journal of pediatrics, 147(1), 32-37.

Tomori, C. (2018). 'Changing cultures of night-time breastfeeding and sleep in the US.' IN: Dowling, S., Pontin, D., & Boyer, K. (eds.) *Social Experiences of Breastfeeding: Building Bridges Between Research, Policy and Practice*. Bristol: Policy Press. PP. 115-130.

Tomori, C., Palmquist, A. E., & Dowling, S. (2016). Contested moral landscapes: Negotiating breastfeeding stigma in breastmilk sharing, nighttime breastfeeding, and long-term breastfeeding in the US and the UK. *Social Science & Medicine*, *168*, 178-185.

Victora, C. G., Bahl, R., Barros, A. J., França, G. V., Horton, S., Krasevec, J., ... & Group, T. L. B. S. (2016). Breastfeeding in the 21st century: epidemiology, mechanisms, and lifelong effect. The Lancet, 387(10017), 475-490.

Vieira, T. O., Vieira, G. O., de Oliveira, N. F., Mendes, C. M., Giugliani, E. R. J., & Silva, L. R. (2014). Duration of exclusive breastfeeding in a Brazilian population: new determinants in a cohort study. BMC pregnancy and childbirth, 14(1), 175.

Wambach, K., & Riordan, J. (2010). *Breastfeeding and Human Lactation.* 4th Edition. Jones and Bartlett Learning: Burlington.

Table One: Participant demographic background

Indicator	Group	N	%
Age	≤ 19	8	2.3
	20 – 24	33	9.3
	25 – 29	78	22.0
	30 – 34	146	41.2
	35 ≥	89	25.1
Education	School	50	14.1
	College	60	16.9
	Higher	141	39.8
	Postgraduate	103	29.1
Marital Status	Married	243	69.2
	Cohabiting	95	27.1
	Partner	7	1.2
	Single	9	2.5
Maternal occupation	Professional / managerial	75	21.2
	Skilled	149	42.1
	Unskilled	86	24.3
	Stay at home mother	44	12.4
Parity	First baby	220	62.7
	Second or more	134	37.3

Table Two: Maternal Reasons for Using Infant Parenting Books

Item	% Strongly agree or agree	Mean (SD)
For information on when my baby should sleep	76.8%	2.20 (1.13)
Where my baby should sleep	55.2%	2.72 (1.26)
When my baby should feed	61.7%	2.54 (1.19)
How to get my baby into a routine	65.0%	2.44 (1.15)
How to settle my baby	65.9%	2.34 (1.01)
How to get my baby to sleep	71.3%	2.1 (1.06)
For information on my baby's development	61.6%	2.47 (1.26)
What activities I could do with my baby	42.3%	2.88 (1.23)
Because I find reading about parenting interesting	63.0%	2.38 (1.09)
To learn about different parenting approaches	63.0%	2.37 (1.04)
How I should interact with my baby	27.2%	3.85 (1.06)
How much I should cuddle my baby	8.1%	3.26 (1.16)
To reassure myself whether my baby is following normal behaviours	59.8%	2.46 (1.20)
For day to day routines for my baby	53.1%	2.61 (1.13)
To follow expert advice	48.1%	2.78 (1.14)
To reassure myself that I am doing the 'right' thing	58.1%	2.56 (1.20)
Just out of interest	59.8%	2.46 (1.09)

Table Three: Impact of Books Upon Maternal Behaviour

Item	% Strongly agree or agree	Mean (SD)
Encouraged me to put my baby in a sleep routine	45.1%	3.0 (1.34)
Affected where I put my baby to sleep	22.8%	3.38 (1.17)
Encouraged me to put my baby in a feeding routine	22.2%	3.50 (1.17)
Affected when I feed my baby	24.1%	3.49 (1.18)
Encouraged me to not respond immediately to my baby's cry	23.5%	3.63 (1.22)
Affected how quickly I responded to my baby	24.4%	3.42 (1.16)
Encouraged me not to always pick up or cuddle my baby	15.4%	3.87 (1.10)
Affected how I interact with my baby	16.0%	3.62 (1.10)

Table Four: Maternal Behaviour and Infant Parenting Books

Behaviour	Category	Read any	Did not read	Significance
Breastfeeding (full or partial)	Breastfed at birth	76.1%	94.3%	χ = 20.166, p = .000
	Breastfed at 2 weeks	53.7%	77.8%	χ = 17.25, p = .000
	Breastfed at 6 weeks	48.6%	68.6%	χ = 10.25, p = .001
How do you feed your baby?	To a schedule	26.8%	12.6%	χ = 9.907, p = .002
	Whenever baby wants	73.2%	87.4%	
In which room does your baby sleep?	Their own room	38.9%	13.8%	χ = 12.207, p = .000
	In mother's room	61.1%	86.2%	
Where does your baby sleep?	In own cot	64.5%	39.9%	χ = 8.824, p = .001
	In cot attached to the bed	9.0%	13.0%	
	Regularly co-sleep	15.5%	26.1%	
	Mix of own cot and co-sleep	11.1%	21.0%	
When settling your baby to sleep do you	They fall asleep on their own with no crying	25.0%	13.0%	χ = 32.378, p = .000
	I cuddle them to sleep	49.5%	73.9%	
	I let them cry for a few minutes	23.0%	9.4%	
	I let them cry for up to 10 minutes	2.5%	1.8%	
	I let them cry for more than 10 minutes	0%	0%	
	I do not respond however long they cry	0%	0%	
If my baby cries in the night I	Respond immediately	28.0%	52.9%	χ = 19.709, p = .000
	Wait a few minutes to see if they settle	53.3%	41.4%	
	Wait up to 10 minutes to see if they settle	15.1%	4.3%	
	Wait more than 10 minutes to see if they settle	3.5%	1.4%	
	Do not respond	0.5%	0%	
Daily routine	Yes strictly	8.5%	2.1%	χ = 21.883, p = .000
	Yes loosely	54.0%	36.4	
	No	37.4%	61.5	