Applied Nursing Research 34 (2017) 29–33

Contents lists available at ScienceDirect

Applied Nursing Research

journal homepage: www.elsevier.com/locate/apnr

Parent decision factors, safety strategies, and fears about infant sleep locations

Jennifer J. Doering *, Alexis Marvin, Samantha Strook

University of Wisconsin-Milwaukee College of Nursing, United States

ARTICLE INFO

Article history:
Received 13 June 2016
Revised 30 November 2016
Accepted 10 January 2017
Available online xxxx

Keywords:
Infant
Sleep
Safety
Decision making
Parents

ABSTRACT

Infant sleep safety is a primary concern of parents. Infant sleep locations vary around the world. Purpose: This pilot study investigated the decision factors, fears, and safety strategies reported by parents internationally. Methods: participants (n = 49) recruited online from 10 countries completed an anonymous Internet survey in English and submitted a picture of the infant's primary nighttime sleep location. Pictures were coded into 'shared' (29%) or 'separate' (71%) sleep surfaces. Results: primary decision factors about infant sleep location were safety, comfort, family sleep quality, and overall ease. Parents maximized safety by providing a clear sleep surface, no blankets, no toys, sleep sack use, and a firm mattress. Different worries and fears emerged depending on the sleep surface. Conclusion: differences in the specific worries and strategies used by parents when deciding whether to share or not share a sleep surface with an infant may be used to tailor future interventions.

1. Introduction

There is great debate around the world between clinicians, policymakers, and parents about where infants are safest when asleep (Ball & Volpe, 2013; Bartick & Smith, 2014). This debate has been generated, in part, by improved science surrounding sleep-related infant death (Salm Ward & Balfour, 2015). Concurrently, a populist consumer movement has emerged that frequently conflicts with the scientific literature by promoting bed-sharing. Underpinning this movement is a parenting philosophy that suggests mothers and infants should maintain near continuous proximity after birth as popularized by terms such as the "fourth trimester" (Karp, 2010, 2012) and "attachment parenting" (Attachment Parenting International, 2015). Over time, studies in several countries have consistently found that a significant percentage of parents place sleeping infants in locations that expose infants to environmental hazards including the sharing of sleep surfaces with adults, placement to sleep on soft or uneven surfaces, and non-supine positioning (Ball & Volpe, 2013; Colson et al., 2005; Hauck, Singore, Fein, & Raju, 2008; Hauck & Tanabe, 2008; Tappin, Ecob, & Brooke, 2005; Vennemann et al., 2009). Recently, Batra et al. (2016) conducted nighttime video assessments of 160 infants in the United States. They found that at 1 month, 28% of infants slept in more than one location at night and that placement in the second location was on a non-recommended sleep surface (meaning not a firm, flat, separate place) for nearly all (91%) of those infants.

There is agreement across several countries that exposure to some environmental factors such as smoking, alcohol or other substances, prone sleep positioning, and sleeping on soft sleep surfaces are threats to infant health and safety (Academy of Breastfeeding Medicine Protocol Committee, 2008; Ministry of Health – Manatū Hauora, 2015; Moon & Task Force On Sudden Infant Death Syndrome, 2016; Public Health Agency of Canada, 2014; UNICEF United Kingdom, 2015). Perhaps the greatest debate is whether infants sleep safely when sharing a sleep surface with a parent. While the debate continues, every night around the world, parents make decisions about where to place their infant to sleep. Although there are some studies on these decision factors within individual countries such as the USA (Chianese, Ploof, Trovato, & Chang, 2009; Joyner, Oden, Ajao, & Moon, 2010), Canada (Eni, Phillips-Beck, & Mehta, 2014) and the UK (Rudzik & Ball, 2015), few studies examine which factors are common across multiple countries.

For example, Joyner et al. (2010) interviewed 83 low and middle class African-American mothers in the USA for reasons they choose to roomshare or bedshare. Major reasons why women choose to keep their infant within the mother's bedroom rather than in a separate room included space, convenience, and infant safety. Safety was the biggest factor when making decisions about the infant's sleep surface (i.e., separate or shared) followed by comfort, convenience, and space (Joyner et al.). Similarly, Eni et al. (2014) interviewed 65 Canadian First Nations women about breastfeeding determinants and found that all women who breastfed also bedshared. Women reported feeling more secure being close to the infant, that they felt a bedsharing

* Corresponding author at: University of Wisconsin-Milwaukee College of Nursing, 1921 East Hartford Avenue, Milwaukee, WI 53211, United States.
E-mail address: doering@uwm.edu (J.J. Doering).

http://dx.doi.org/10.1016/j.apnr.2017.01.002
0897-1897/

sleeping arrangement helped reduce accidents such as falling asleep with the infant while sitting in a chair, and that they felt a greater sense of bonding (Eni et al.). In the UK, Rudzik and Ball's (2015) 7 focus groups of women with infants (n = 40) revealed that breastfeeding women used bedsharing to protect their own sleep.

While many studies investigate the prevalence of bedsharing and the characteristics of populations in different countries that chose to bedshare or roomshare, we did not find recent published studies that further investigated decision factors pertaining to infant sleep surface in Australia, Asia, Europe, or South America. Furthermore, we found no published studies that employed photography to observe infant sleep environments and only two articles that used video observations including one in a monitored laboratory (Volpe, Ball, & McKenna, 2013) and one observing the home environment (Batra et al., 2016).

1.1. Purpose and objectives

To being to fill these gaps, the purpose of our study was to describe where infants sleep at night around the world and the factors that influence parent's decisions. To achieve the stated purpose, the objectives of this study were to describe parent: 1) Decision factors influencing infant sleep location, 2) Worries and fears about infant sleep location, and 3) Strategies for maximizing sleep location safety.

1.2. Products in which infants are placed for sleep

Studies have identified that infants sleep in diverse places and, not uncommonly, in multiple locations at night (Ball & Volpe, 2013; Joyner et al., 2010). Irrespective of safety considerations, infant sleep locations that have been described in the literature and consumer product websites include, but are not limited, to bassinets, Moses baskets, cribs, co-sleepers (bedside and in-bed), play yards, couches, inclined sleepers, and adult beds (Table 1) (Chu, Hackett, & Kaur, 2015; Thompson & Moon, 2015). In another example, the indigenous Māori population of New Zealand are working with health care professionals to test the Wahakura and pēpi-pod® sleep environments (products placed in the adult bed that have sidewalls and are made of a firm woven material or plastic), which are believed to better represent the population's cultural and family values (Abel & Tipene-Leach, 2013).

Manufacturers of juvenile products also affect the global debate about infant sleep safety. The global baby care market, which is projected to grow to USD $66.8 billion by 2017 (Statista, 2015) is rapidly proliferating consumer products intended for infant sleep. Similarly, there is a commensurate increase in products that may not be intended infant sleep, but are being used for infant sleep including car seats, inclined swings, slings and wraps, hammocks, bouncers, and strollers (Table 1) (Batra, Midgett, & Moon, 2015; Kids in Danger, 2015; Shapiro-Mendoza et al., 2015).

Table 1
Examples of products used for infant sleep.

Product category
Adult bed
Bassinet
Basket (e.g., Moses basket)
Bouncer
Car seat
Co-sleeper (bedside)
Crib
Hammock
In-bed sleeper
Inclined sleeper
pēpi-pod®
Play yard
Sling
Stroller
Swing
Travel bed
Wahakura
Wrap

1.3. Factors affecting infant product markets and significance to nursing practice

Many factors affect whether a product is sold in a country. Factors such as global demographic changes, the flow of capital, technological progress, trade laws and international treaties can affect product availability in a given country (World Trade Organization, 2013). The ubiquity of transnational travel and migration of people (World Trade Organization, 2013) means that health care workers and researchers need more information about the sleep practices of parents and infants internationally in order to account for differences in behavior and to understand differences in parenting practices. Nurses and parents struggle to align safety guidelines with family culture and values, and researchers are challenged to build interventions that attend to the unique contexts of individual families (Ball & Volpe, 2013). In particular, nurses around the world may interact with families who are using products that are new on the market, may be minimally tested, and are not addressed by infant sleep safety policies. Nurses in these situations may need to make decisions about the safety of products they see being used in the home having manufacturer guidelines pertaining to correct assembly and use, but without clear guidance from professional health organizations. Our study seeks to link observational (photographic) infant sleep location data with parent decision factors so that researchers can begin to explore how to influence those decision factors to promote infant sleep safety in populations around the world.

2. Methods

This pilot study used a mixed-methods, exploratory, descriptive, non-experimental design.

2.1. Participant selection

A convenience sample of 49 parents was recruited through online posting. To be included, participants met the self-report criteria of being a caregiver of an infant between 0 and 12 months, able to read and write English, and access to an Internet connection that was capable of uploading a photograph. Participants were recruited on social media through extensive posting to Facebook, Twitter, and LinkedIn. Recruitment emails were distributed through nursing networks and listservs and to dozens of individual “mommy bloggers”. Specifically on social media, recruitment efforts were targeted to posting on mother/father/parents groups in individual countries using the county's name (e.g., Brazil) were targeted systematically by continent. Only sites utilizing English were used for recruitment purposes.

The 49 participants represented ten different countries and lived in the continents of Asia (n = 4), Europe (n = 4), North America (n = 38), Oceania (n = 2), and South America (n = 1). Three participants reported living in North America, but reported a different continent of origin. One participant reported living in Europe, but reported a different continent of origin. Relative to the infant, participants were either mothers (98%) or fathers (2%). Participants reported being married (88%), co-habiting (10%), or single (2%). The mean number of children reported by participants was 1.6 (±0.93), range 1 to 5. Average infant age at the time of data collection was 6.6 (±3.0), range 1 to 12 months. Report of type of infant feeding included breast milk only (43%), other food/milk/drink (33%), breast milk and formula (10%), baby food or mashed regular food (10%), and formula only (4%). Participants provided online consent, and the study was conducted with human subject's approval from the affiliated university's Institutional Review Board.

2.2. Measures

Both demographic and open-ended questions were asked using an anonymous Qualtrics survey, meaning names, email, and ISP addresses were not tracked. Demographic questions included current living location, country of origin, relationship status, number of children, infant age, participant relationship to infant, whether the infant was single or multiple gestation and type of infant feeding. The open-ended questions created by the study team were: (1) How did you decide to put your baby in this sleep place; (2) What worries or fears do you have about where your baby sleeps; and (3) How do you make your baby's sleep place safe?

2.3. Procedures

Participants completed an anonymous, online survey wherein they were ask to submit a photograph of where their infant sleeps when they (the parent) was also asleep at night. Instructions for taking the photograph included placing a doll or other object to show the position of the infant, but not to show the infant for privacy reasons. Participants were asked to describe the sleep location in the photograph before proceeding to further study questions. No compensation was offered for study participation.

2.4. Data analysis

Data were first analyzed as a whole sample. Then, each sleep location photograph and its accompanying description were examined and coded as "shared" or "separate" based upon whether the photograph was showing a sleep environment where the participant indicated sharing the sleep surface with the infant. Participants who indicated use of both shared and separate sleep spaces were placed in the shared category for data analysis purposes. Numerical data were entered into SPSS 22 predictive analytics software and analyzed with descriptive statistics. Open ended questions were coded and analyzed into themes through summative content analysis (Babbie, 2012). Open ended questions were coded by two researchers separately and compared to identify any discrepancies, and the third researcher participated in resolving any differences.

3. Results

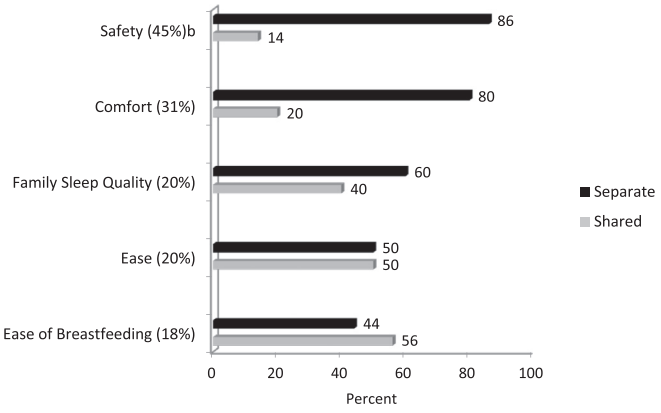
3.1. Infant sleep location

Analysis of photographs and the accompany descriptions of the infant sleep location revealed that 86% (42/49) of parents reported one sleep location for their infant during the night and 14% (7/49) of parents reported two sleep locations even though only a photograph of the primary sleep location was submitted. Only the primary sleep locations were used for analysis. The seven participants who reported a second sleep location included five who reported the combination of crib and adult bed; one reported pack-n-play and adult bed, and one reported bouncer and pack-n-play. Of the 49 primary sleep locations reported, cribs were the most common (43%) followed by adult bed (27%), pack-n-play (10%), co-sleeper attached to the bed (10%), inclined sleeper (4%), bassinet (2%), bouncer (2%), and floor (2%). Photographs were coded into separate (71%, 35/49) and shared sleep surfaces (29%, 14/49).

3.2. Decision factors surrounding infant sleep location

Five major themes emerged from parent descriptions of how they decided to put their baby in a given sleep location. All decision factors mentioned by a parent (n = 19) were coded. In descending order from most to least frequent, including direct quotes illustrating the factor, parents identified the most important factor as safety (45%, *We think it is the safest place for her to be sleeping*), followed by comfort (31%, *Comfort for baby*), family sleep quality (20%, *Everyone gets more sleep*), ease (20%, *Easier to co-sleep*), and ease of breastfeeding (18%, *Easier to nurse during the night*) (see Table 2). When decision factors were examined based upon whether the participant indicated a shared or separate sleep surface, the results shifted. Of the 45% of parents who listed safety as a decision factor, 86% slept on a separate surface and 14% slept shared. Of the 31% who listed "comfort" as a decision factor, 80% slept on a separate surface. Family sleep quality was divided 60% (separate) and 40% (shared). "Ease" was mentioned equally (50%) by both types of participants. Ease of breastfeeding was also more equally divided (Table 2).

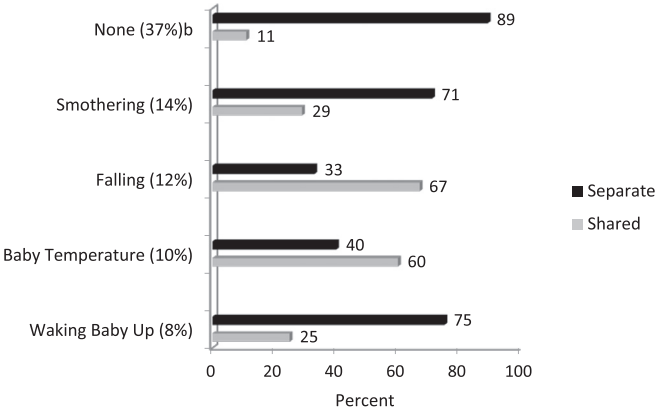
Table 2
Decision factors about infant sleep location reported by parents.



3.3. Worries and fears about infant sleep location

There were five major themes identified from the worries and fears parents reported about their infant's sleep location (see Table 3). In descending order of frequency of total responses (n = 14), the most frequent worry or fear was none (*I don't have any fears or worries*), smothering (*I worry that I'll smother her in my sleep*), falling (*Crawl off the bed in his/her sleep*), baby temperature (*I worry about him being too hot or too cold*), and waking baby up (*I wish I could check on her without waking her up*). Of the 37% who mentioned having no worries or concerns, 89% slept separate and 11% shared a sleep surface. The worry of infant smothering was shared by 71% of parents using a separate sleep surface and 29% of parents using a shared sleep surface. Falling was a bigger concern of parents sharing a sleep surface (67%) as was the baby's temperature (60%). Waking baby up was a concern primarily held by parents using separate sleep locations (75%).

Table 3
Parent worries and fears about infant sleep location.



3.4. Strategies for maximizing sleep location safety

Strategies for maximizing sleep location safety (n = 38 total strategies mentioned) were divided into five discrete themes: Clear sleep surface (22%), no blankets (20%), no toys (16%), sleep sack use (16%), and firm mattress (14%) for their infant (see Table 4). Of the 22% who mentioned a clear sleep surface, 91% slept separate. The use of no blankets was mentioned by 90% of parents using a separate sleep surface and only 10% of parents using a shared sleep surface. No toys and sleep sack use was mentioned by 88% of parents reporting a separate sleep surface. A firm mattress was more evenly divided by parents using separate (57%) and shared (43%) sleep surfaces.

4. Discussion

Overall, this pilot study's findings of a small sample of parents from ten different countries suggest that parent decisions, and their subsequent behavior about where to place their infant to sleep, may be heavily influenced by their beliefs. Safety was a primary decision factor surrounding the infant sleep location that was mentioned by nearly half of the sample. However, of all the parents who mentioned safety as a decision factor, only 14% of those parents shared a sleep surface. This finding, which is supported in the literature, may infer that parents who choose a shared sleep location prioritize other factors, such as baby comfort, sleep quality, or housing influences when deciding an infant sleep location (Chianese et al., 2009; Chu et al., 2015; Joyner et al., 2010; Zambrano, Mindell, Reyes, Hart, & Herring, 2015). Understanding parent decision factors has implications for tailoring infant sleep product suggestions and messaging by nurses to parents in ways that value the parent's priorities.

Both groups of parents reported employing safety strategies to maximize the infant's sleep safety, albeit in differing frequencies between groups. A firm mattress was most evenly mentioned by both shared/not-shared groups of parents. Given the small sample size, we would not be justified to draw further conclusions, beyond noting that the safety strategies reported by parents who reported a separate sleep surface appeared to reflect the message of keeping the space around the sleep infant clear of bedding and objects as commonly noted in policies around the world.

Perhaps most surprising was that the primary fear or concern reported by parents was “none” by 37% of those who provided a response to this question. Nearly all (89%) of that 37% reported a separate sleep surface. The 11% who reported sharing a sleep surface and having no worries or fears deserves further investigation to explore the steps parents take to secure such peace of mind, investigate the concrete steps parents take to reduce hazards in shared sleep environments, and quantify the effectiveness of those hazard reduction methods. Future studies may also want to consider measuring the degree to which social desirability affects parent responses to survey questions about infant sleep safety to ensure validity of the data. Overall, we found that asking parents to describe how they made a decision about infant sleep location, the safety strategies they used and their worries, elicited thoughtful insight into parent thinking. In a clinical context, asking for the thought behind a parent's decision, the safety strategies used, and their worries, may help nurses obtain a more comprehensive assessment and more effectively discuss practical risk-reduction strategies rather than telling parents simply that their choices are “good” or “bad” (Ball & Volpe, 2013).

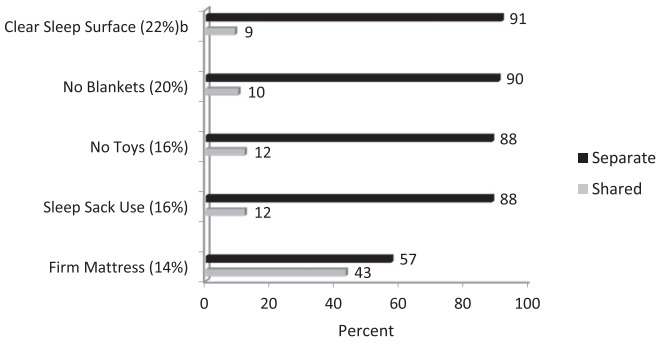
Methodologically, this pilot study demonstrated the feasibility of collecting photographic and descriptive data of infant sleep environments from 49 parents living in several countries. These data were valuable for categorizing and analyzing data in a manner that revealed new patterns in decision factors, worries and fears, and safety strategies utilized by parents based upon whether or not parents reported sharing a sleep surface with the infant. Photographs revealed that parents placed their infants in a variety of locations including the floor, crib, adult bed, bassinet, inclined sleeper, an attached co-sleeper, bouncer, and play yard. That so many different products and sleep environments were represented in this small sample suggests the need for nurses in every country to be familiar with the products that are on the market in their country and to evaluate the safety of those products in collaboration with families. The baby product industry moves at a faster pace than policy updates may occur, which may require nurses to provide parents with product advice without having clear guidance available.

Nurses and other healthcare professionals can help parents think through the potential hazards a product may pose to an infant such as when a product is improperly assembled. Similarly, if parents seek to modify a product by removing safety features or adding soft objects like pillows or blankets (e.g., such as to make the product more “comfortable” for the infant), nurses can caution parents about making modifications that may unintentionally increase the risk of hazard to the infant and problem-solve alternative solutions. Additionally, nurses working with migrating families may encounter products that may have been brought from other countries and similarly, may be asked to assist parents to make decisions about that product's safety not knowing what safety testing has been conducted.

We acknowledge this study was limited in several ways, the first of which is that only caregivers who read and write English were included. We also likely had limited representation of socioeconomic diversity due to the online social media recruitment method and requirement of an Internet connection and photograph uploading capabilities for data collection. The small size limits generalization, which could be partially mitigated in future studies by securing a larger sample and utilizing a more comprehensive recruitment strategy. Replication and expansion of the sample size would also improve the representativeness of more diverse infant sleep environments, since one cannot assume that one or two participants from a particular country provides a representative view of infant sleep practices in that country. Despite these limitations, there is value in this study's findings, which provide rationale for expanding research on infant sleep environments to include multiple countries and to more comprehensively understand the diversity and variations in infant sleep environments and parent decision making that nurses may encounter in practice.

Our findings also have implications for future nursing research and practice in maternal and infant sleep and sleep environments. Findings suggest the need for more systematic and comprehensive assessment of parent decision factors and everyday infant sleep practices. The interrelationships between sleep and health (Cappuccio, D'Elia, Strazzullo, & Miller, 2010), maternal and infant sleep (Volkovich, Ben-Zion, Karny, Meiri, & Tikotzky, 2015; Zambrano et al., 2015) and the complicated sleep patterns of postpartum women (McBean & Montgomery-Downs, 2015) suggests the need for assessment of infant sleep when conducting studies of maternal sleep. Subjective measures of sleep such as sleep diaries can accompany more objective measures such as actigraphy and polysomnography. Furthermore, this community-based sample also suggests the need for more research that takes

Table 4
Parent strategies for maximizing sleep location safety.



place in home settings and uses methods like photography and videography to allow for direct and indirect observation of maternal and infant sleep environments and behavior patterns.

5. Conclusion

This study provides a description of where infants sleep at night in a small sample of parents from ten different countries. These descriptions are unique to other studies, because photographs of the sleep environment were provided in addition to the parents' written narratives. When looking at the responses linked to either separate or shared sleep surfaces, regardless of sleep location, parents reported putting significant, thoughtful consideration into deciding their infant's sleep environment. These study results may be used to help mold interventions that are better tailored to the unique concerns and worries of parents, and caregivers overall, who utilize different strategies for maximizing infant sleep safety.

Funding

This work was supported by a grant from the Office of Undergraduate Research at the University of Wisconsin-Milwaukee.

Acknowledgments

This research would not have been possible without the support of the University of Wisconsin-Milwaukee Office of Undergraduate Research, the University of Wisconsin-Milwaukee College of Nursing, and a grant from the Support for Undergraduate Research Fellows program.

Appendix A. Supplementary data

Supplementary data to this article can be found online at http://dx.doi.org/10.1016/j.apnr.2017.01.002.

References

Abel, S., & Tipene-Leach, D. (2013). SUDI prevention: A review of Maori safe sleep innovations for infants. *New Zealand Medical Journal*, *126*(1379), 86–94.

Academy of Breastfeeding Medicine Protocol Committee (2008). ABM clinical protocol #6: Guideline on co-sleeping and breastfeeding. Revision, March 2008. *Breastfeeding Medicine*, *3*(1), 38–43. http://dx.doi.org/10.1089/bfm.2007.9979.

Attachment Parenting International (2015). Retrieved from http://www.attachmentparenting.org/

Babbie, E. (2012). *The practice of social research* (13th ed.). Belmont, CA: Wadsworth.

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. http://dx.doi.org/10.1016/j.socscimed.2012.03.025.

Bartick, M., & Smith, L. J. (2014). Speaking out on safe sleep: Evidence-based infant sleep recommendations. *Breastfeeding Medicine*, *9*(9), 417–422. http://dx.doi.org/10.1089/bfm.2014.0113.

Batra, E. K., Midgett, J. D., & Moon, R. Y. (2015). Hazards associated with sitting and carrying devices for children two years and younger. *The Journal of Pediatrics*. http://dx.doi.org/10.1016/j.jpeds.2015.03.044.

Batra, E. K., Teti, D. M., Schaefer, E. W., Neumann, B. A., Meek, E. A., & Paul, I. M. (2016). Nocturnal video assessment of infant sleep environments. *Pediatrics*. http://dx.doi.org/10.1542/peds.2016-1533.

Cappuccio, F. P., D'Elia, L., Strazzullo, P., & Miller, M. A. (2010). Sleep duration and all-cause mortality: A systematic review and meta-analysis of prospective studies. *Sleep*, *33*(5), 585–592.

Chianese, J., Ploof, D., Trovato, C., & Chang, J. C. (2009). Inner-city caregivers' perspectives on bed sharing with their infants. *Academic Pediatrics*, *9*(1), 26–32. http://dx.doi.org/10.1016/j.acap.2008.11.005.

Chu, T., Hackett, M., & Kaur, N. (2015). Housing influences among sleep-related infant injury deaths in the USA. *Health Promotion International*. http://dx.doi.org/10.1093/heapro/dav012.

Colson, E. R., McCabe, L. K., Fox, K., Levenson, S., Colton, T., Lister, G., & Corwin, M. J. (2005). Barriers to following the back-to-sleep recommendations: Insights from focus groups with inner-city caregivers. *Ambulatory Pediatrics*, *5*(6), 349–354. http://dx.doi.org/10.1367/A04-220R1.1.

Eni, R., Phillips-Beck, W., & Mehta, P. (2014). At the edges of embodiment: Determinants of breastfeeding for first nations women. *Breastfeeding Medicine*, *9*(4), 203–214. http://dx.doi.org/10.1089/bfm.2013.0129.

Hauck, F. R., & Tanabe, K. O. (2008). International trends in sudden infant death syndrome: Stabilization of rates requires further action. *Pediatrics*, *122*(3), 660–666. http://dx.doi.org/10.1542/peds.2007-0135.

Hauck, F. R., Singore, C., Fein, S. B., & Raju, T. N. K. (2008). Infant sleeping arrangements and practices during the first year of life. *Pediatrics*, *122*(Suppl. 2), S113–S120.

Joyner, B. L., Oden, R. P., Ajao, T. I., & Moon, R. Y. (2010). Where should my baby sleep: A qualitative study of African American infant sleep location decisions. *Journal of the National Medical Association*, *102*(10), 881–889. http://dx.doi.org/10.1016/S0027-9684(15)30706-9.

Karp, H. (2010). The happiest baby. Retrieved from http://www.happiestbaby.com/why-newborn-has-plenty-of-reasons-to-cry/

Karp, H. (2012). The fourth trimester and the calming reflex: Novel ideas for nurturing young infants. *Midwifery Today with International Midwife*, *67*(102), 25–26.

Kids in Danger (2015). Kids in danger blog. Retrieved from http://www.kidsindanger.org/blog

McBean, A. L., & Montgomery-Downs, H. E. (2015). What are postpartum women doing while the rest of the world is asleep? *Journal of Sleep Research*, *24*(3), 270–278. http://dx.doi.org/10.1111/jsr.12265.

Ministry of Health – Manatū Hauora (2015). Safe sleep. Retrieved from http://www.health.govt.nz/your-health/pregnancy-and-kids/first-year/helpful-advice-during-first-year/safe-sleep

Moon, R. Y., & Task Force On Sudden Infant Death Syndrome (2016). SIDS and other sleep-related infant deaths: Updated 2016 recommendations for a safe infant sleeping environment. *Pediatrics*, e20162938. http://dx.doi.org/10.1542/peds.2016-2938.

Public Health Agency of Canada (2014). Joint statement on safe sleep: Preventing sudden infant deaths in Canada. Retrieved from http://www.phac-aspc.gc.ca/hp-ps/dca-dea/stages-etapes/childhood-enfance_0-2/sids/index-eng.php

Rudzik, A. E., & Ball, H. L. (2015). 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*. http://dx.doi.org/10.1007/s10995-015-1798-7.

Salm Ward, T. C., & Balfour, G. M. (2015). Infant safe sleep interventions, 1990–2015: A review. *Journal of Community Health*. http://dx.doi.org/10.1007/s10900-015-0060-y.

Shapiro-Mendoza, C. K., Colson, E. R., Willinger, M., Rybin, D. V., Camperlengo, L., & Corwin, M. J. (2015). Trends in infant bedding use: National Infant Sleep Position study, 1993–2010. *Pediatrics*, *135*(1), 10–17. http://dx.doi.org/10.1542/peds.2014-1793.

Statista (2015). Baby care market size worldwide in 2011, 2012, and 2017 (in billion U.S. dollars). Retrieved from http://www.statista.com/statistics/250853/global-baby-care-market-size/

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

Thompson, E. L., & Moon, R. Y. (2015). Hazard patterns associated with co-sleepers. *Clinical Pediatrics*. http://dx.doi.org/10.1177/0009922815603188.

UNICEF United Kingdom (2015). Bed-sharing and infant sleep. Retrieved from http://www.unicef.org.uk/BabyFriendly/News-and-Research/Research/Bed-sharing-and-infant-sleep/

Vennemann, M. M., Bajanowski, T., Brinkmann, B., Jorch, G., Sauerland, C., & Mitchell, E. A. (2009). Sleep environment risk factors for sudden infant death syndrome: The German Sudden Infant Death Syndrome Study. *Pediatrics*, *123*(4), 1162–1170. http://dx.doi.org/10.1542/peds.2008-0505.

Volkovich, E., Ben-Zion, H., Karny, D., Meiri, G., & Tikotzky, L. (2015). Sleep patterns of co-sleeping and solitary sleeping infants and mothers: A longitudinal study. *Sleep Medicine*, *16*(11), 1305–1312. http://dx.doi.org/10.1016/j.sleep.2015.08.016.

Volpe, L. E., Ball, H. L., & McKenna, J. J. (2013). Nighttime parenting strategies and sleep-related risks to infants. *Social Science & Medicine*, *79*, 92–100. http://dx.doi.org/10.1016/j.socscimed.2012.05.043.

World Trade Organization (2013). World Trade Report 2013: Factors shaping the the future of world trade. Retrieved from https://www.wto.org/english/res_e/publications_e/wtr13_e.htm

Zambrano, D. N., Mindell, J. A., Reyes, N. R., Hart, C. N., & Herring, S. J. (2015). "It's not all about my baby's sleep": A qualitative study of factors influencing low-income African American mothers' sleep quality. *Behavioral Sleep Medicine*, 1–12. http://dx.doi.org/10.1080/15402002.2015.1028063.