



ACADEMY OF
**Breastfeeding
Medicine**

Bedsharing and Breastfeeding: The Road to a Collaborative International Evidence-based Clinical Protocol

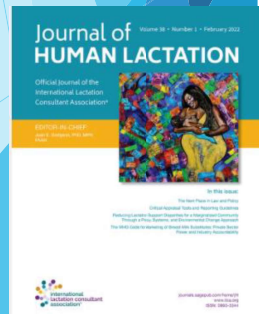
Kathleen Marinelli MD, IBCLC, FABM, FAAP

Clinical Professor of Pediatrics, University of Connecticut School of Medicine

Division of Neonatology, Connecticut Childrens' Medical Center, Hartford, CT, USA

Associate Editor, Journal of Human Lactation

Past Chair and Member, Academy of Breastfeeding Medicine Protocol Committee



Durham
University

Infancy & Sleep Centre

22nd Anniversary Conference

Faculty Disclosure Information

- ▶ I am a neonatologist, and a breastfeeding medicine specialist;
- ▶ I volunteer for Baby-Friendly USA;
- ▶ I volunteer for the Academy of Breastfeeding Medicine;
- ▶ I am an Associate Editor of the Journal of Human Lactation;
- ▶ I have no associations with commercial entities;
- ▶ I abide by the International Code of Marketing of Breast-Milk Substitutes;
- ▶ I firmly believe that human milk is the optimal feeding for all human babies and young children, with very few exceptions.
- ▶ For the purposes of this presentation, I also firmly believe in and practiced breastfeeding!
- ▶ Kathleen A. Marinelli MD, IBCLC, FABM, FAAP

Objectives

- ▶ Briefly trace the history and purpose of the Academy of Breastfeeding Medicine and its Protocol Committee;
- ▶ Examine the important publication in the *Journal of Human Lactation* “An Integrated Analysis of Maternal-Infant Sleep, Breastfeeding, and Sudden Infant Death Syndrome Research Supporting a Balanced Discourse” August 2019;
- ▶ Record the history of the “Bedsharing and Breastfeeding” ABM protocols over time culminating in the publication of the 2019 Revision;
- ▶ Recognize the seminal work of the Durham Infancy and Sleep team in shaping the research that has now been translated into policy and (hopefully) practice change.

slides © K Marinelli MD 3-2022



Durham
University

Infancy & Sleep Centre

22nd Anniversary Conference



Academy of
**Breastfeeding
Medicine**

A little history...”A Legacy of Scientific Rigor”

- ▶ 1993, group of physicians at an International Lactation Consultant Association meeting discussed a multidisciplinary physician organization dedicated to the science of breastfeeding medicine
- ▶ Identifying common concerns and challenges, core group of 12 physicians formed Physicians Advocating Breastfeeding (PHAB) and scheduled first conference summer 1994
- ▶ At the conference, founders drafted bylaws, articles of incorporation, mission statement, short and long-term goals, general organizational structures
 - ▶ renamed the Academy of Breastfeeding Medicine (ABM)
- ▶ Now 29 years old, ABM continues to grow while pursuing 3 principal goals:
 - ▶ Education of healthcare providers and institutions
 - ▶ Fostering global professional community of doctors with diverse specialties committed to care of women and children
 - ▶ Advancement of research and practices that shape public policy in support of breastfeeding

slides © K Marinelli MD 3-2022

<https://www.bfmed.org/about>

PHYSICIAN MEMBERSHIP IN ABM



- ▶ Eligibility requirements
- ▶ MD, DO, MBBS, DDS, DMD or equivalent degree from an accredited school of medicine or osteopathy
- ▶ A current license to practice medicine in one's state or country
- ▶ To qualify as a Resident Member one must be a resident or fellow
- ▶ To qualify as a Student Member one must be a medical student or a physician in full-time academic study or clinical training. (Resident and Student members can serve on a committee but cannot hold office or serve on the Board.)

slides © K Marinelli MD 3-2022



Infancy & Sleep Centre
22nd Anniversary Conference

AFFILIATE MEMBERSHIP IN ABM as of 2021

Eligibility requirements

NP, RN, PA, IBCLC, RD, SLP, Certified Nurse Midwives, and other healthcare professionals with an advanced degree interested in Breastfeeding Medicine who are certified by the appropriate entity.

To qualify as a PhD “Affiliate Member,” one must be conducting research or studying a field related to breastfeeding medicine.

slides © K Marinelli MD 3-2022

ABM Protocol Committee

- ▶ One of the oldest long-standing ABM committees
 - ▶ I joined as a committee member in 1999
 - ▶ I became co-Chair 2004-2010
 - ▶ I took over as Chair 2010
 - ▶ Currently I am taking a hiatus from the Committee
- ▶ *“A central goal of the Academy of Breastfeeding Medicine is the development of clinical protocols for managing common medical problems that may impact breastfeeding success. These protocols serve only as guidelines for the care of breastfeeding mothers and infants and do not delineate an exclusive course of treatment or serve as standards of medical care. Variations in treatment may be appropriate according to the needs of an individual patient.”*

slides © K Marinelli MD 3-2022



Durham
University

Infancy & Sleep Centre
22nd Anniversary Conference

ABM Bylaws (How the Committee Works)

- ▶ *“The protocols committee is responsible for the development of evidence-based clinical protocols for managing common medical problems that may impact breastfeeding success. Using ABM-approved procedures, the committee identifies relevant topics, recruits expert authors and facilitates peer, international and board review processes that are integral to protocol development. It also oversees the translation of protocols into languages other than English.”*

slides © K Marinelli MD 3-2022

4. Mastitis (2014)



5. Peripartum Breastfeeding Management (2013)



<https://www.bfmed.org/protocols>

6. Bedsharing and Breastfeeding (2019)



7. Model Maternity Policy (2018)



8. Human Milk Storage for Home Use (2017)



slides © K Marinelli MD 3-2022



Durham
University

Infancy & Sleep Centre
22nd Anniversary Conference

ABM Protocols ($n=35$)

- ▶ 1. Hypoglycemia (English revised 2021)
- ▶ 2. Going Home Discharge (2014)
- ▶ 3. Supplementation (2017)
- ▶ 4. Mastitis (2014)
- ▶ 5. Peripartum Breastfeeding Management (2013)
- ▶ 6. Bedsharing and Breastfeeding (2019)
- ▶ 7. Model Maternity Policy (2018)
- ▶ 8. Human Milk Storage for Home Use (2017)
- ▶ 9. Galactogogues (2018)
- ▶ 10. Breastfeeding the Late Pre-Term Infant (2016)
- ▶ 11. Ankyloglossia (2021) Please refer to the new position statement.
- ▶ 12. NICU Graduate Going Home (2018)
- ▶ 13. Contraception and Breastfeeding (2015)
- ▶ 14. Breastfeeding Friendly Office (English revised 2021)
- ▶ 15. Analgesia and Anesthesia for the Breastfeeding Mother (2017)
- ▶ 16. Breastfeeding the Hypotonic Infant (2016)
- ▶ 17. Cleft Lip (2019)
- ▶ 18. Antidepressants (2015)

slides © K Marinelli MD 3-2022

ABM Protocols (n=35)

- ▶ 19. Breastfeeding Promotion in the Prenatal Setting (2015)
- ▶ 20. Engorgement (2016)
- ▶ 21. Substance Use and Breastfeeding (2015)
- ▶ 22. Jaundice (2017) 23. Non-Pharmacologic Management of Procedure-Related Pain (2016)
- ▶ 24. Allergic Proctocolitis (2011)
- ▶ 25. Preprocedural Fasting for the Breastfeeding Infant (2012)
- ▶ 26. Persistent Pain with Breastfeeding (2016)
- ▶ 27. Insulin-Dependent Diabetes (2017)
- ▶ 28. Peripartum Analgesia & Anesthesia (2018)
- ▶ 29. Iron, Zinc, & Vitamin D (2018)
- ▶ 30. Breast Masses (2019)
- ▶ 31. Radiology (2019)
- ▶ 32. Hyperlactation (2020)
- ▶ 33. LGBTQ+ Patients (2020)
- ▶ 34. Breast Cancer (2020)
- ▶ 35. Supporting Breastfeeding During Maternal or Child Hospitalization (2021)

slides © K Marinelli MD 3-2022



Infancy & Sleep Centre
22nd Anniversary Conference



History of the ABM Breastfeeding and Cosleeping Protocols

- ▶ First version in ABM News and Views (*which is lost in my house somewhere...*)
- ▶ ABM Clinical Protocol #6: Guideline on Co-Sleeping and Breastfeeding Revision, March 2008. Contributors *Rosha McCoy, M.D., FABM; *James J. McKenna, Ph.D.; *Lawrence Gartner, M.D., FABM; Protocol Committee Caroline J. Chantry, M.D., FABM, Co-Chairperson, Cynthia R. Howard, M.D., FABM, Co-Chairperson, Ruth A. Lawrence, M.D., FABM, **Kathleen A. Marinelli, M.D., FABM, Co-Chairperson**, Nancy G. Powers, M.D., FABM. *Breastfeeding Medicine* Volume 3, Number 1, 2008.
- ▶ Bedsharing and Breastfeeding: The Academy of Breastfeeding Medicine Protocol #6, Revision 2019. **Peter S. Blair**, **Helen L. Ball**, **James J. McKenna**, **Lori Feldman-Winter**, **Kathleen A. Marinelli**, Melissa C. Bartick, and the Academy of Breastfeeding Medicine. *Breastfeeding Medicine* Volume 15, Number 1, 2020.

slides © K Marinelli MD 3-2022

Revisions of ABM protocols

- ▶ ...due 5 years after publication
- ▶ 2008 + 5 = 2013 
- ▶ Many issues to deal with: health, “political”, organizational, schedules, etc.

slides © K Marinelli MD 3-2022



This Photo by Unknown Author is licensed under [CC-BY-NC-ND](#)

 **Durham**
University
Infancy & Sleep Centre
22nd Anniversary Conference

Finally, the stars aligned in 2018-2019

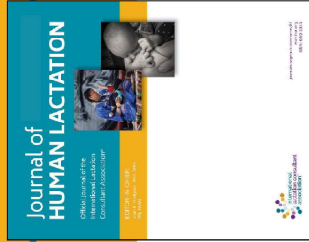
slides © K Marinelli MD 3-2022

This Photo by Unknown Author is licensed under [CC-BY](#)

Special Issue Call for Papers

Journal of
HUMAN LACTATION

5-Year Impact Factor: 2.258
Source: Journal Citation Reports®, 2018
release, a Clarivate Analytics product



Editor-in-Chief:
Joan E. Dodgson, Ph.D., MPH, RN, FAAN
School of Nursing
Saint Louis University

**Call for Papers: State of the Science
August 2019 Issue**

State of the science articles are valuable to clinicians, educators and researchers because their critical analyses provide evidence for standards of practice, establish the current level of knowledge on a topic, and highlight gaps in the evidence pointing the directions for future research.

It is our goal to bring our readership the most up-to-date information available. To facilitate this goal we are calling for critical literature reviews and meta-analyses, using established methodologies, about anyone of the many and varied aspects of lactation. We are not interested in a summary or a synthesis of a body of literature, rather accepted manuscripts will provide a critical analysis of the evidence that identifies gaps in what we know, evaluates methodologies researchers have used and hypothesizes the next steps needed to continue building our evidence.

journals.sagepub.com/home/jhl

Official Journal of the International
Lactation Consultant Association®



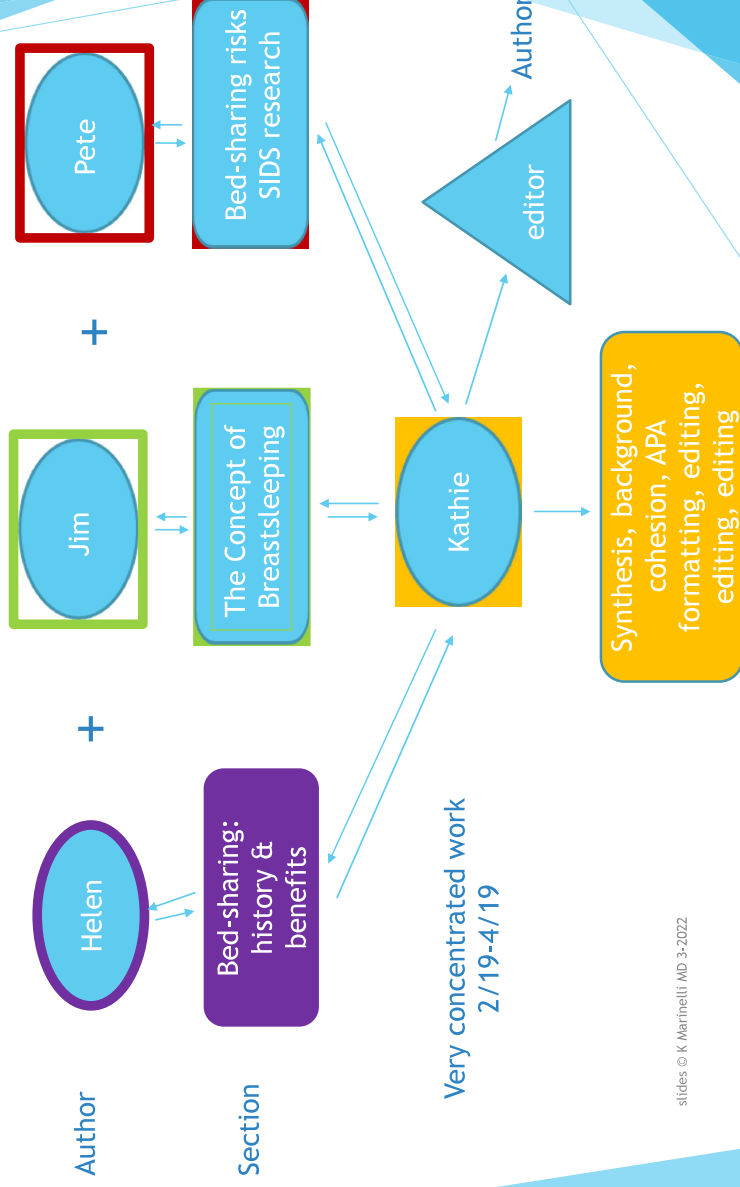
www.ilca.org

slides © K Marinelli MD 3-2022

JHL welcomes manuscripts that review literature within the past 10 years (2008-2018). Manuscripts should closely follow our Author Guidelines (2018) for reviews of the literature found on our website. We urge authors to search at least 5 databases (CINAHL, Cochrane Library, PubMed, Medline, EBSICO, Scopus, Academic Premier, Web of Science, PsycInfo, JSTOR, etc.) to ensure all relevant literature has been reviewed.



The Process 10/18-4/19



slides © K Marinelli MD 3-2022

10 Most Read Journal Articles of 2019



On topics ranging from addressing disparities to trends in research on human milk exchange, our community tapped into the top-accessed resources of *Journal of Human Lactation* (JHL) nearly 180,000 times last year.

As we wrap up 2019, we compiled this list of the year's top ten most accessed JHL articles. Planning on using research to guide your practice? Your ILCA membership ensures a full year's access to the next year's content, along with online, on-demand searchable access to the full database of JHL research to find the evidence you need. Not a member or time for you to renew? Click here to join or renew your membership now.

#10 Critical Review of Theory Use in Breastfeeding Interventions

Yeon K. Bai, Soyoung Lee, Kaitlin Overgaard

#9 A Critical Review of Instruments Measuring Breastfeeding Attitudes, Knowledge, and Social Support

Cornie S. Casal, Ann Lei, Sera L. Young, Emily L. Tuthill

#8 Does Truthful Advertising Ever Pass "The Smell Test" in a Peer-Reviewed Journal?

Elizabeth C. Brooks

#7 Reflexivity in Qualitative Research

Joan E. Dodsou

slides © K. Marinelli MD 3-2022

#6 Current Trends in Research on Human Milk Exchange for Infant Feeding

Aunchalee E. L. Palmquist, Maryanne T. Perrin, Diana Cassar-Uhl, Karleen D. Gribble, Angela B. Bond, Tanya Cassidy

#5 Breastfeeding Support Interventions by International Board Certified Lactation Consultants: A Systemic Review and Meta-Analysis

Ellen M. Chelwynd, Heather M. Wasser, Charles Poole

#4 An Integrated Analysis of Maternal-Infant Sleep, Breastfeeding, and Sudden Infant Death Syndrome Research Supporting a Balanced Discourse

Kathleen A. Marinelli, Helen L. Ball, James J. McKenna, Peter S. Blair

#3 Feasibility and Acceptability of Metformin to Augment Low Milk Supply: A Pilot Randomized Controlled Trial

Laurie Nommsen-Rivers, Amy Thompson, Sarah Riddle, Laura Ward, Erin Wagner, Eileen King

#2 Breastfeeding in the Community: Sharing Stories on Implementations That Work

Sheree Holmes Kelt, Harumi Reis-Reilly, Nikkia Fuller-Sankofa, Margaret Carr

#1 Breastfeeding in the Community: Addressing Disparities Through Policy, Systems, and Environmental Changes Interventions

Harumi Reis-Reilly, Nikkia Fuller-Sankofa, Calondra Tibbs

Editors Note: As originally posted, some authors were listed in the incorrect order. This post was edited on 16 January 2020 to list the authors in order as published in the *Journal of Human Lactation*.



Infancy & Sleep Centre

22nd Anniversary Conference



An Integrated Analysis of Maternal-Infant Sleep, Breastfeeding, and Sudden Infant Death Syndrome Research Supporting a Balanced Discourse

Overview of attention for article published in *Journal of Human Lactation*, June 2019



About this Attention Score

In the top 25% of all research outputs scored by Altmetric

Mentioned by

20 tweets
7 Facebook pages

Citations

18 Dimensions

Readers on

82 Mendeley

ALL RESEARCH OUTPUTS
#1,800,927
of 18,495,698 outputs

OUTPUTS FROM JOURNAL OF HUMAN LACTATION
#167
of 1,103 outputs

OUTPUTS OF SIMILAR AGE
#42,114
of 275,127 outputs

OUTPUTS OF SIMILAR AGE FROM JOURNAL OF HUMAN LACTATION
#4
of 16 outputs

Altmetric has tracked 18,495,698 research outputs across all sources so far. Compared to these this one has done particularly well and is in the 90th percentile. It's in the top 10% of all research outputs ever tracked by Altmetric.

slides © K. Marinelli MD 3-2022

Article Metrics
What is this page?
Embed badge
Share

View on publisher site

Alert me about new mentions

ATTENTION SCORE IN CONTEXT

MENDELEY READERS

TWITTER DEMOGRAPHICS

This research output has an **Altmetric Attention Score of 13**. This is our high-level measure of the quality and quantity of online attention that it has received. This Attention Score, as well as the ranking and number of research outputs shown below, was calculated when the research output was last mentioned on **04 August 2020**.

Journal of Human Lactation Most Read Articles

- ▶ Articles most read in this journal in the last 6 months currently (remember published on-line first 6/2019; in print 8/2019)
- ▶ Lists top 50 articles

An Integrated Analysis of Maternal-Infant Sleep, Breastfeeding, and Sudden Infant Death Syndrome...

Kathleen A. Marinelli, Helen L. Ball, James J. McKenna, Peter S. Blair
Aug 2019 - Vol 35, Issue 3. First published: 11 Jun 2019



Views & downloads: 628
Citations: 16

- ▶ **Google Scholar** lists 33 times cited, in multiple languages
- ▶ **Web of Science**, lists cited 17 times

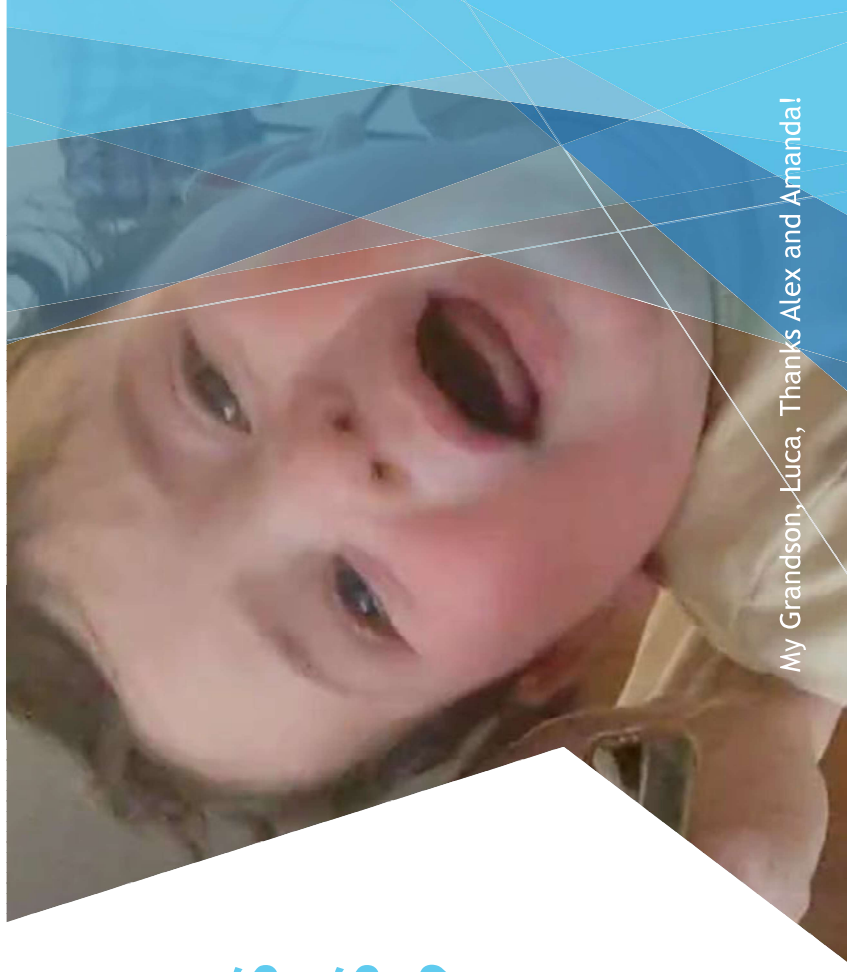
slides © K Marinelli MD 3-2022



Infancy & Sleep Centre
22nd Anniversary Conference

So what is all the fuss about?

slides © K Marinelli MD 3-2022



My Grandson, Luca, Thanks Alex and Amanda!

Aims of our paper

- ▶ To review the literature associated with this topic
- ▶ using an historical, epidemiological, and anthropological, and methodological lens;
- ▶ with the information, determine
 - ▶ where we are now in safeguarding both infant lives and breastfeeding,
 - ▶ the direction that research might take from this point forward to improve knowledge and inform our policy and practice.

slides © K Marinelli MD 3-2022



Durham
University

Infancy & Sleep Centre
22nd Anniversary Conference

Key Messages

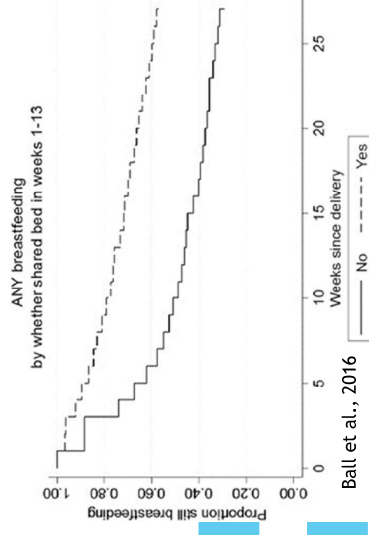
- ▶ Sudden Infant Death Syndrome studies have often been interpreted as consistent with policies to exclude breastfeeding mothers from sleeping with their infants, even in the absence of risk factors for infant death.
- ▶ Except for policy in the United Kingdom, the primary source of information to guide families on safe sleeping and breastfeeding that does not separate the mother and the child comes from breastfeeding support organizations.
- ▶ In the context of “breastsleeping” we can emphasize the magnitude of risks surrounding unsafe sleeping practices involving alcohol, drugs, and sofas or chairs, and call for a more coordinated approach with public health strategists on how best to care for infants and keep them safe.

slides © K Marinelli MD 3-
2022

Word Cloud: History and Background to Current Debate



slides © K Marinetti MD 3-2022



Ball et al., 2016

Epidemiology

Epidemiology of Bed-sharing

- Common practice even in Western societies

Bed-sharing and Breastfeeding

- Strong relationship demonstrated in many studies
- Breastfeeding associated with a greatly reduced risk of SIDS--“Never Bed-share” message may impede SIDS reduction!
- SIDS rates are extremely low in some cultural contexts and socio-ecological circumstances of bed-sharing

Epidemiology of Sudden Infant Death Syndrome and Bed-sharing

- For 30 years definitions of “bed-sharing deaths” varied widely
 - sofa-sharing, sleep-sharing with siblings or pets, and babies returned to a crib
- Data not comparable between studies, or even between cases and controls in the same study (Ball, 2007; Ball, Hooker, & Kelly, 1999)
- Potential interactions between bed-sharing and hazardous circumstances (infants sleeping next to parents who smoked, drank alcohol, or used a sofa for the sleep surface) started to emerge (Blair et al., 2009)

slides © K Marinetti MD 3-2022

Complicated!

- ▶ Advising parents diverged
 - ▶ strict guidance to avoid bed-sharing
 - ▶ acknowledging that bed-sharing happens and discussing when this may or may not be appropriate

slides © K Marinelli MD 3-2022

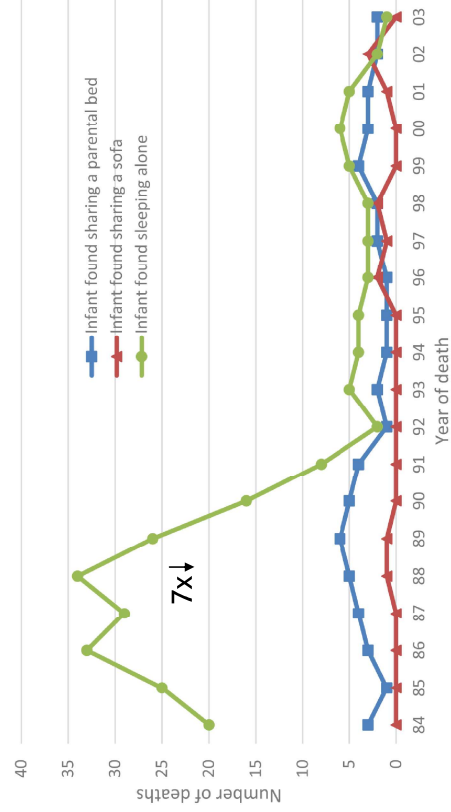
what's the opposite of on one hand?

but then, on the other hand, then again



Thesaurus . plus

SIDS Deaths



SIDS deaths by sleeping environment (300 consecutive SIDS deaths in Avon, UK between 1984 and 2003).

slides © K Marinelli MD 3-2022

- ▶ Observational case-control studies suggest as many as half of SIDS deaths occur when infants sleep alongside an adult (Vennemann et al., 2012)

- ▶ As opposed to “cot” or “crib” deaths
- ▶ Advise against bed-sharing (AAP since 2005)
- ▶ Bed-sharing with breastfeed infants inherently placed supine to facilitate feeding



© Baby Sleep Information Source, licensed for use under Creative Commons, 2016

Significant Interactions Providing Hazardous Exposure to the Infant

- ▶ No risk of bed-sharing in the absence of three particular hazards
 - ▶ parental smoking;
 - ▶ recent parental alcohol consumption;
 - ▶ sleeping next to an adult on the sofa (Blair et al., 2014)
 - ▶ <12 weeks Increased risk, NS
- ▶ Similar combined analysis showed 5-fold increased risk with younger infants bed-sharing in non-hazardous circumstances
 - ▶ Reference group was not comparable despite making this assumption (Carpenter et al., 2013)
- ▶ Confusion in interpretation of results
 - ▶ AAP concluded data from these two analyses do not support definitive conclusion bed-sharing among youngest infants is safe, even under less hazardous circumstances (Moon, 2016)
 - ▶ UK review of 2 analyses by independent National Institute for Health and Care Excellence (NICE 2014) concluded bed-sharing in itself is not causal and parents need to be informed of the specific hazards associated with this practice

slides © K Marinelli MD 3-2022



Durham
University

Infancy & Sleep Centre

22nd Anniversary Conference

Benefits of Bed-sharing

- ▶ Reasons parents bed-share:
 - ▶ Deeply rooted cultural or religious beliefs and parenting philosophies
 - ▶ The physiological links between lactation and night-time breastfeeding
 - ▶ Reflect the biological compulsion that drives the urge for close contact (Salm-Ward, 2015)
 - ▶ Makes night-time care easier
 - ▶ Helps monitor the baby, provide comfort, and yet obtain sleep (Ball, 2002, 2003; Rudzik & Ball, 2016).
 - ▶ Have nowhere else to put their baby at night
 - ▶ Have fallen asleep with their baby unintentionally
- ▶ Of 34 studies exploring maternal reasons for co-sleeping 26 reported breastfeeding as the key reason (Salm-Ward, 2015)
 - ▶ Facilitates night-time breastfeeding
 - ▶ Associated with more frequent night-time feeds (which promotes milk production, taking advantage of the physiological prolactin surge)
 - ▶ Associated with more months of breastfeeding

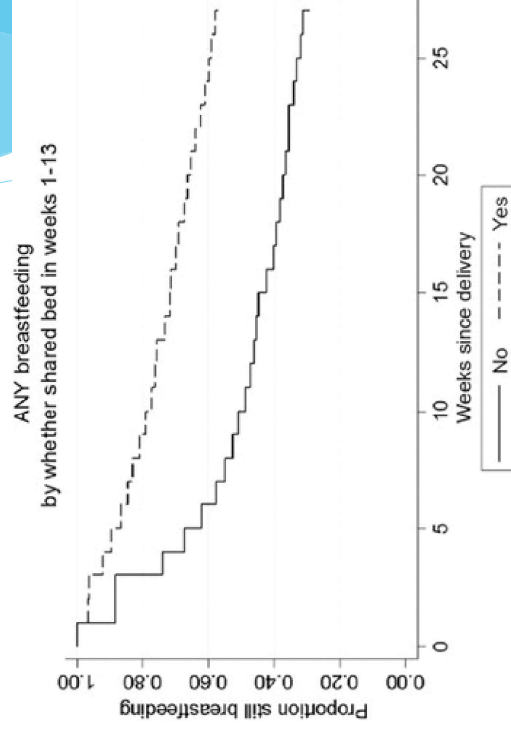
slides © K Marinelli MD 3-2022



Benefits of Bed-sharing

- ▶ Data from several studies showing prevalence and exclusivity of breastfeeding in Brazil (Santos et al, 2009) and prevalence in the UK (Ball et al., 2016) are consistent with interpretation that bed-sharing is strategy used by breastfeeding mothers to reduce costs (e.g., sleep disruption) of prolonged breastfeeding (Tully & Ball, 2013).
- ▶ Prevention of bed-sharing is therefore likely to undermine breastfeeding goals (Ball, 2003)

slides © K Marinelli MD 3-2022



Bedsharing is strongly associated with breastfeeding continuation. Source: Ball et al., 2016

Maternal Sleep

- ▶ Bed-sharing breastfeeding mothers wake frequently to feed
 - ▶ achieve longer sleep duration (Quillin, & Glenn, 2004)
 - ▶ wake for shorter periods, fall back to sleep more rapidly (Mosko, Richard, McKenna, 1997b)
- ▶ Every breastfeeding mother sometimes falls asleep with her baby, in bed, in a chair, or on a couch
- ▶ Vital that all health professionals who support breastfeeding mothers are well informed about the issues surrounding sleep sharing and can help new mothers make sense of how the research evidence relates to their own situations.

slides © K Marinelli MD 3-2022

The Concept of Breastsleeping

2016 Mobbs et al. described the need for, and benefits of, immediate and sustained contact, including “cosleeping”, to establish an appropriate foundation for optimal human infant breastfeeding, neonatal attachment, and brain growth.

McKenna & Gettler, (2016) proposed the concept of breastsleeping aimed to help resolve the bedsharing debate & distinguish between the known and potential differences between breastfeeding, bed-sharing dyads and non-breastfeeding, bedsharing situations particularly when breastfeeding and bed-sharing is practiced in the absence of all known hazardous factors.

© K Marinelli MD 3-2022



Durham
University

Infancy & Sleep Centre
22nd Anniversary Conference

Breastsleeping would encourage acknowledgment of

- ▶ Critical role immediate and sustained maternal contact plays in helping establish optimal breastfeeding (Ball, 2008; 2017b; Ball & Russell, 2012)
- ▶ Normal human (species wide) infant sleep parameters should only be derived from studies of breastsleeping dyads because of ways maternal-infant contact affects delivery of mother's milk, milk's ingestion, infant's concomitant and subsequent metabolism, and other physiological processes, maternal and infant sleep architecture, including arousal patterns (McKenna et al., 1990; Mosko et al., 1997a, 1997b) as well as breastfeeding frequency and prolongation (Ball et al., 2006; 2016)
- ▶ Breastsleeping by mother-infant pairs appears to involve substantially different behavioral and physiological characteristics compared with never breastfeeding mothers and infants.
 - ▶ This dyadic context must be more closely researched and more carefully understood, and potentially distinguished as a separate epidemiological category for the purpose of benefit and risk assessment (Baddock et al., 2019; Ball, 2006; McKenna & Gettler, 2016; Mobbs, Mobbs, & Mobbs, 2016)

slides © K Marinelli MD 3-2022

Risk-Reduction Strategies

- ▶ Advise against bed-sharing (US)
 - ▶ Clear direct message to the public and therefore perceived to be easier to get across
 - ▶ Despite campaigns to decrease bed-sharing in some States, bed-sharing has increased in the US in recent years, especially among black and Hispanic communities (Colson et al., 2014)
 - ▶ Current AAP (2016) recommendations about bed-sharing are not being followed as widely as hoped
 - ▶ 2016 guidelines more nuanced; although they do not recommend bed-sharing they do acknowledge that mothers often fall asleep while breastfeeding their babies in bed, and advise that the parental bed should be prepared to avoid hazardous bedding should this occur (Moon, 2016a).
 - ▶ Latest guidelines also advise safer to breastfeed in bed at nighttime, compared to on sofas or armchairs, and strongly advise against the latter
- ▶ Acknowledge that bed-sharing occurs either intentionally or unintentionally and that it is therefore appropriate to discuss circumstances in which it is risky to bed-share (UK)
 - ▶ UK approach lacks same simplicity as US approach, more closely aligned to the evidence;
 - ▶ Acknowledging bed-sharing happens means it can be discussed without judgement and specific hazardous situations or environments can be discussed

slides © K Marinelli MD 3-2022



© Baby Sleep Information Source, licensed for use under Creative Commons, 2016



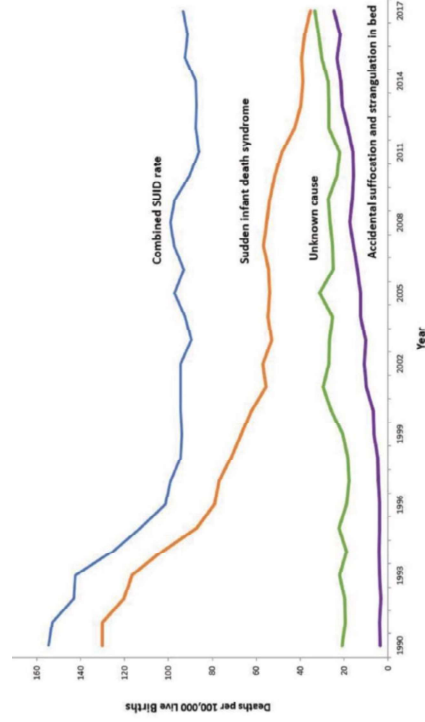
<https://www.basisonline.org.uk/parents-bed/>



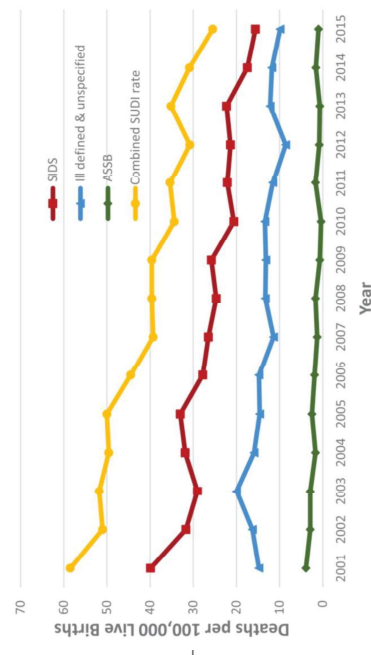
Durham University

Infancy & Sleep Centre

22nd Anniversary Conference



Trends in US Sudden Unexpected Infant Death by cause, 1990-2017.



SIDS, Sudden Infant Death Syndrome
ASSB, Accidental Suffocation and Strangulation in Bed
SUDI, Sudden and Unexpected Infant Death

Trends in SIDS and SUDI in England and Wales (2002-2015).

slides © K Marinelli MD 3-2022

So what is the way forward?

Policy change and education of all healthcare providers, to provide education and guidance to parents...

slides © K Marinelli MD 3-2022



Infancy & Sleep Centre
22nd Anniversary Conference

BREASTFEEDING MEDICINE
Volume 15, Number 1, 2020
© Mary Ann Liebert, Inc.
DOI: 10.1089/bfm.2019.29144.psb

Bedsharing and Breastfeeding: The Academy of Breastfeeding Medicine Protocol #6, Revision 2019

Peter S. Blair,¹ Helen L. Ball,² James J. McKenna,^{3,4} Lori Feldman-Winter,⁵ Kathleen A. Marinelli,^{6,7}
Meissa C. Bartick,⁸ and the Academy of Breastfeeding Medicine

Abstract

A central goal of the Academy of Breastfeeding Medicine is the development of clinical protocols for managing common medical problems that may impact breastfeeding success. These protocols serve only as guidelines for the care of breastfeeding mothers and infants and do not delineate an exclusive course of treatment or serve as standards of medical care. Variations in treatment may be appropriate according to the needs of an individual patient.

Purpose

BEDSHARING PROMOTES BREASTFEEDING INITIATION,¹ duration,²⁻⁷ and exclusivity.^{7,8} Medical and public health organizations in some countries recommend against bedsharing, citing concerns over increased risk of sleep-related infant death.^{9,10} However, bedsharing may only be a

“bedsharing,” “SIDS,” and “separate sleep” for purposes of this protocol. “Breastfeeding” is defined there as well.

Overall, the research conducted to date on bedsharing and breastfeeding indicates that nighttime proximity facilitates breastfeeding duration and exclusivity (levels 2-3).^{2,4,14} Discussions about safe bedsharing should be incorporated

slides © K Marinelli MD 3-2022

Correction to: *Bedsharing and Breastfeeding: The Academy of Breastfeeding Medicine Protocol #6, Revision 2019* by Blair et al. Breastfeed Med. 2020;15:5–16. DOI: 10.1089/bfm.2019.29144.psb

 **is erratum of** 

Published Online: 9 Aug 2021 | <https://doi.org/10.1089/bfm.2019.29144.psb> [correx](#)

PDF/EPUB

 **Tools**  **Share**

In the January 2020 issue of *Breastfeeding Medicine* (vol. 15, no. 1; pp. 5–16) the article entitled “Bedsharing and Breastfeeding: The Academy of Breastfeeding Medicine Protocol #6, Revision 2019” by Blair et al. requires correction.

A co-author of the article, Lori Feldman-Winter, is associated with the American Academy of Pediatrics. The article published in *Breastfeeding Medicine* reflects the personal opinion of Dr. Feldman-Winter, and does not represent AAP policy or guidelines.

This disclaimer has been added to the online version of the article clarifying this position.

slides © K Marinelli MD 3-2022



Durham
University

Infancy & Sleep Centre
22nd Anniversary Conference

Bedsharing and Breastfeeding: ABM Protocol #6, Revision 2019

- ▶ Levels of evidence (1-5) from the Oxford Centre for Evidence Based Medicine (Howick et al., 2011)
- ▶ Research conducted to date on bedsharing and breastfeeding indicates that nighttime proximity facilitates breastfeeding duration and exclusivity (levels 2-3)
- ▶ Discussions about safe bedsharing should be incorporated into guidelines for pregnancy and postnatal care
- ▶ Bedsharing among breastfeeding infants (i.e., breastsleeping) does not cause sudden infant death syndrome (SIDS) in the absence of known hazards (level 3)
 - ▶ Larger studies with appropriate controls needed to understand relationship between bedsharing and infant deaths in absence of known hazards at different ages
 - ▶ Not all hazards are individually modifiable after birth (e.g., prematurity)

slides © K Marinelli MD 3-2022

Bedsharing and Breastfeeding: ABM Protocol #6, Revision 2019

Accidental suffocation death is extremely rare among bedsharing breastfeeding infants in the absence of hazardous circumstances (levels 2-3), and must be weighed against the consequences of separate sleep

Risk of early weaning, the risk of compromise to milk supply from less frequent nighttime breastfeeding, and unintentional bedsharing (levels 1-3)

Recommendations concerning bedsharing must account for mother's knowledge, beliefs, and preferences and acknowledge the known benefits and risks (level 5)

ALL families should be counseled about safe sleep

slides © K Marinelli MD 3-2022



Infancy & Sleep Centre
22nd Anniversary Conference

TABLE 1. HAZARDOUS RISK FACTORS
OR CIRCUMSTANCES DURING BEDSHARING

These are factors that increase the risk of SIDS and fatal sleeping accidents, either alone or when combined with bedsharing.^{11,26,41,42}

- Sharing a sofa with a sleeping adult (“sofa-sharing”)
- Infant sleeping next to an adult who is impaired by alcohol^a or drugs
- Infant sleeping next to an adult who smokes
- Sleeping in the prone position
- Never initiating breastfeeding
- Sharing a chair with a sleeping adult
- Sleeping on soft bedding
- Being born preterm or of low birth weight

^aAmounts of alcohol causing impairment are discussed in the text. SIDS, sudden infant death syndrome.

slides © K Marinelli MD 3-2022

TABLE 2. ELEMENTS OF SAFE BEDSHARING ADVICE,
IN ORDER OF IMPORTANCE

1. Never sleep with infants on a sofa, armchair, or unsuitable surface, including a pillow (level 3).¹¹
2. Place infants to sleep away from any person impaired by alcohol or drugs (level 3).¹¹
3. Place infants supine for sleep (level 3)¹¹ (level 4)⁴³ (level 5).⁴⁴
4. Place infants to sleep away from secondhand smoke and away from a caregiver who routinely smokes (level 1)²⁸ and clothing or objects that smell of smoke (thirdhand smoke) (level 5).⁴⁵ (In cases where the mother smokes, this will not be possible).
5. The bed should be away from walls and furniture to prevent wedging of the infant's head or body (level 1).⁴⁶

6. The bed's surface should be firm, just as with a crib (level 3).⁴¹ without thick covers (e.g., duvets, doonas), pillows, or other objects that could cause accidental head covering and asphyxiation.
7. The infant should not be left alone on an adult bed (level 1).⁴⁷
8. Adoption of the C-position ("cuddle curl"), with the infant's head across from the adult's breast, adult's legs and arm(s) curled around the infant, infant on their back, away from the pillow, is the optimal safe sleeping position (Fig. 1) (level 4).^{48,49}
9. There is insufficient evidence to make recommendations on multiple bedsharers or the position of the infant in bed with respect to both parents in the absence of hazardous circumstances.^{50,51} Each locality should consider the cultural circumstances unique to its situation with respect to sleep conditions.

slides © K Marinelli MD 3-2022



Durham
University

Infancy & Sleep Centre
22nd Anniversary Conference

Recommendations

- ▶ Discussion with open-ended questions from health care providers concerning bedsharing safety should happen with all parents, as bedsharing is likely to happen whether intended or not (level 4)
- ▶ Screen families at increased risk of infant death with bedsharing: infants who were born preterm (level 2, 3), exposed to tobacco antenatally (level 1, 4, 5), live with smokers (level 1, 3, 4) and those who live with people who consume alcohol (level 3) or drugs and might be in charge of an infant and could fall asleep with the infant
- ▶ Information and counseling about safe bedsharing should be provided even to parents for whom bedsharing should be discouraged (those with hazardous conditions or circumstances), as one must assume that parents may bedshare anyway, even if unintentionally (level 1)
 - ▶ how to make sleep areas as safe as possible, how to minimize hazardous circumstances
- ▶ Conversations should be nonjudgmental and acknowledge context

slides © K Marinelli MD 3-2022

TABLE 3. RISK MINIMIZATION STRATEGIES FOR FAMILIES IN WHICH BEDSHARING IS HIGH RISK

Increased promotion and support of breastfeeding (level 1) ^{12,42,52} (level 3). ⁵²
Referral for smoking cessation and alcohol and/or drug treatment (level 1) ²⁸ (level 3). ¹¹
Enhanced repeated multimodal messaging regarding risks of sofa-sharing, bedsharing where hazardous factors are present, including sleeping next to an impaired adult and smoke avoidance. Text messaging and e-mail, including use of video and social media may be helpful if available to parents (level 2). ^{34,53,54}
Sidecars or in-bed devices (e.g., Pēpi-Pod [®] ; <i>wahakura</i>) can be considered (level 2). ^{1,55}
Emphasize room-sharing where and when bedsharing cannot be done safely.
Take into account the importance of the partner and other support persons' involvement in the infants' sleep time activities.

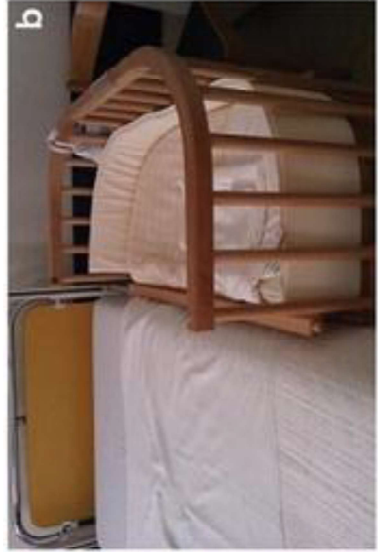
slides © K. Marinelli MD 3-2022



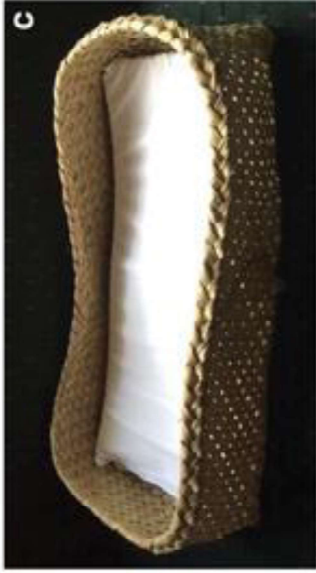
Durham University
 Infancy & Sleep Centre
 22nd Anniversary Conference



Bassinet



Sidecar

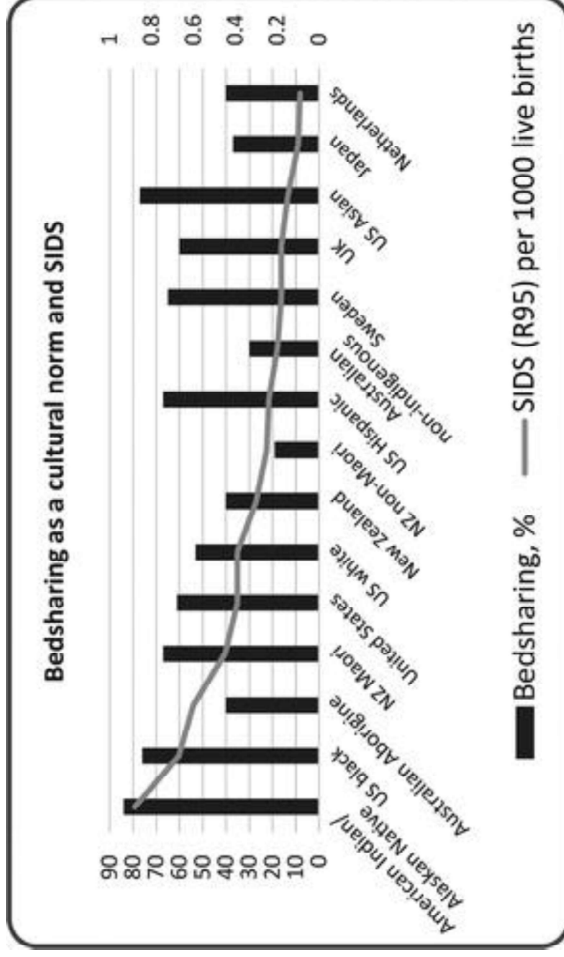


Wahakura



Pēpi-Pod[®]

slides © K. Marinelli MD 3-2022



Bedsharing (any) as a cultural norm and SIDS. Source: Taken from data from Bartick and Tomori, 2019. Most SIDS data are 2014. Australia groups are 2008–2012, Japan is 2015, The Netherlands and Sweden are 2013. Aborigine here refers to both Australian Aborigines and Torres Strait Islanders (combined). SIDS, sudden infant death syndrome.

slides © K. Marinelli MD 3-2022



C-position or “Cuddle curl.” © Baby Sleep Information Source, licensed for use under Creative Commons, 2016

slides © K. Marinelli MD 3-2022

Evidence Base and Supporting Material

- ▶ Definitions
 - ▶ SIDS, SUDI/SUID
 - ▶ Bedsharing: an infant sharing an adult bed with an adult for sleep
 - ▶ Cosleeping: may include both sleeping on a shared surface and sleeping in proximity, but not necessarily on a shared sleep surface
 - ▶ Separate sleep: room-sharing without bedsharing
 - ▶ Solitary sleep: sleeping in a separate room from parents
- ▶ History, context, and anthropology of infant sleep location
- ▶ Bedsharing and SIDS: epidemiological/observational evidence
- ▶ SIDS epidemiology
- ▶ Risk minimization policies and strategies
- ▶ Effectiveness of safe sleep interventions

slides © K. Marinelli MD 3-2022



Infancy & Sleep Centre
22nd Anniversary Conference

Future areas of research

- ▶ How can death investigation techniques be improved to determine whether the death of an infant can be fully explained by asphyxia?
- ▶ Is there a significant risk from bedsharing in the absence of all hazardous circumstances?
- ▶ Is there a relationship between bedsharing risk and infant age and mode of feeding (adjusting for all hazardous circumstances) (breastfeeding, expressed milk feeding, donor milk feeding, and human milk substitutes)?
- ▶ What is the best advice for a safe sleep environment for nonbreastfeeding infants?
- ▶ How do multiple bedsharers in the absence of hazardous risks, including bedsharing of twins, impact the safety of the infant?
- ▶ Does the location of the infant in the bed, for example, between the parents or on the edge of the bed next to the mother, make a difference for safety?
- ▶ Are in-bed devices and sidecars safe and efficacious, especially for infants in high-risk situations, and if safe, what are their effects on breastfeeding?
- ▶ Can the C-position ("cuddle curl") be adopted by nonbreastfeeding bedsharers and is it effective in reducing SIDS?
- ▶ Is providing supportive information to parents on "breastsleeping," as defined in this protocol as a separate category of bedsharing, protective or risky to provide these parents with better specific guidance?
- ▶ Is there autopsy evidence of the effect of feeding human milk substitutes that can establish a causal link between feeding human milk substitutes and SIDS?
- ▶ Do the risks of death from SIDS due to early weaning and potentially related to the lack of safe bedsharing outweigh the risk of death from SIDS from bedsharing in nonhazardous circumstances? There are many confounders and this will be difficult to study.
- ▶ To what extent does maternal obesity modify the risks and benefits of bedsharing?

slides © K. Marinelli MD 3-2022

Impact: ABM Website

- ▶ New website doesn't track the same as the previous did
- ▶ The protocols page has 411,390 hits as of 3/10/22 (for all protocols).
- ▶ Protocols are now also listed under Education Center for non-CME credit
 - ▶ 32 downloads here
 - ▶ Within ~ a month will have obtained permission to offer CME credit
- ▶ Bedsharing and breastfeeding resource page
 - ▶ Link to the protocol and lists other resources
 - ▶ Page has had 1432 hits since September 27, 2021.

slides © K Marinelli MD 3-2022



Durham
University

Infancy & Sleep Centre
22nd Anniversary Conference

The logo for the Academy of Breastfeeding Medicine (ABM), featuring the letters 'ABM' inside a circle, with 'ACADEMY OF' above and 'Breastfeeding Medicine' below.

Member Login

Search our site...

HOMEABOUTJOINDONATEMEMBERSMYABMEVENTSRESOURCESANNUAL MEETING

BEDSHARING AND BREASTFEEDING RESOURCES

The Academy of Breastfeeding Medicine has released new evidence-based recommendations regarding the benefits and risks of bedsharing for mother-infant pairs who have initiated breastfeeding and are in home settings. The [protocol](#) emphasizes that all parents should be educated on safe bedsharing, with the understanding that bedsharing is very common, and when bedsharing is unplanned, it carries a higher risk than planned bedsharing.

Presentations on Bedsharing

Peter Blair, BSc MSc PhD
Bedsharing and Breastfeeding Protocol Coauthor and Speaker at the 24th Annual International Meeting
[Reducing SIDS Risks Whilst Promoting Breastfeeding](#)

Helen Bull, BSc VA PhD
Bedsharing and Breastfeeding Protocol Coauthor and Speaker at the 24th Annual International Meeting
[Bedsharing, Bedsharing & SIDS](#)

Christine McIntosh, BSc MBChB Dip.O&G Dip.Paed.FRNZCGP
Speaker at the 24th Annual International Meeting
[Confident Conversations: Empowering Parents to Make Choices to Prevent Their Baby Dying From Sudden Unexpected Death in Infancy](#)

Other Resources

[BasisOnline](#)

[Lullaby Trust](#)

[UNICEF UK](#)

<https://www.bfmed.org/bedsharing-and-breastfeeding-resources>

slides © K Marinelli MD 3-2022

Breastfeeding Medicine

- ▶ The full-text download figures for “Bedsharing and Breastfeeding: The Academy of Breastfeeding Medicine Protocol #6, Revision 2019” for the time period of Jan. 1, 2020 - Dec. 31, 2021 = 92,818
- ▶ Web of Science, lists cited 19 times

slides © K Marinelli MD 3-2022



Infancy & Sleep Centre
22nd Anniversary Conference

Citations

- ▶ Nulty, AK; Thompson, AL; Weaver, HW; Bentley, ME Directionality of the associations between bedsharing, maternal depressive symptoms, and infant sleep during the first 15 months of life SLEEP HEALTH
- ▶ Chae, SM; Yeo, JY; Chung, NR A qualitative study of the sleep ecology of infants under 2 years old and their mothers in South Korea SLEEP HEALTH
- ▶ Barry, ES; McKenna, JJ Reasons mothers bedshare: A review of its effects on infant behavior and development INFANT BEHAVIOR & DEVELOPMENT
- ▶ Kural, B; Gokcay, G Association Between Infant Sleep Location and Breastfeeding BREASTFEEDING MEDICINE
- ▶ Gutierrez-de-Teran-Moreno, G; Ruiz-Litago, F; Ariz, U; Fernandez-Atutxa, A; Mulas-Martín, MJ; Benito-Fernandez, E; Sanz, B Successful breastfeeding among women with intention to breastfeed: From physiology to socio-cultural factors EARLY HUMAN DEVELOPMENT
- ▶ Wu, TY; Ford, O; Rainville, AJ; Bessire, B; Yang, XN; Jackson-Dyer, T; Haimout, A Reducing Lactation Support Disparities for a Marginalized Community Through a Policy, Systems, and Environmental Change Approach: A Case Study in Michigan JOURNAL OF HUMAN LACTATION
- ▶ Garner, CD; Kendall-Tackett, K; Young, C; Baker, T; Hale, TW Mode of Cannabis Use and Factors Related to Frequency of Cannabis Use Among Breastfeeding Mothers: Results from an Online Survey BREASTFEEDING MEDICINE
- ▶ Hanefeld, N; Glover, L; Jomeen, J; Wadehul, F Women's experiences of using the Alexander Technique in the postpartum: '... in a way, it's just as beneficial as sleep' MIDWIFERY
- ▶ Atas, AN; Ozerdogan, N Perceived Sleep Quality and Fatigue in a Population of New Mothers: A Cross-Sectional Study Comparing Relationships with Breastfeeding and Bottle Feeding BREASTFEEDING MEDICINE
- ▶ Feld, H; Osorio, JC; Bahamonde, M; Young, T; Boada, P; Rayens, MK Poverty and Paternal Education Associated With Infant Safe Sleep Intentions in a Peri-Urban Community in Ecuador GLOBAL PEDIATRIC HEALTH
- ▶ Blair, PS; Ball, HL; McKenna, JJ; Feldman-Winter, L; Marinelli, KA; Bartick, MC Bedsharing and Breastfeeding: The Academy of Breastfeeding Medicine Protocol #6. Revision 2019 by Blair et al (Vol 15, Pg 5, 2020) BREASTFEEDING MEDICINE
- ▶ Bobbjerg, ML Current Resources for Evidence-Based Practice, July 2021 JOGNN-JOURNAL OF OBSTETRIC GYNECOLOGIC AND NEONATAL NURSING
- ▶ Ward, TCS; McPherson, J; Kogan, SM Feasibility and Acceptability of a Tailored Infant Safe Sleep Coaching Intervention for African American Families INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH
- ▶ Barry, ES Sleep Consolidation, Sleep Problems, and Co-Sleeping: Rethinking Normal Infant Sleep as Species-Typical JOURNAL OF GENETIC PSYCHOLOGY
- ▶ Haiech, LN; LeDrew, M; Charette, C; Bartick, M Shared decision-making for infant feeding and care during the coronavirus disease 2019 pandemic MATERNAL AND CHILD NUTRITION
- ▶ Byard, RW Re: Bedsharing and Breastfeeding: The Academy of Breastfeeding Medicine Protocol #6, Revision 2019 by Blair et al. (Breastfeed Med 2020;15:5-16. DOI: 10.1089/bfm.2019.29144.psb) BREASTFEEDING MEDICINE
- ▶ Byard, RW Infant suffocation while breastfeeding FORENSIC SCIENCE MEDICINE AND PATHOLOGY
- ▶ Pearson, C; Brummer, R; Porter, T; Watson, N Personalisation and the Promise of Independent Living: Where Now for Cash, Care and Control for Disability Organisations Across the UK? SCANDINAVIAN JOURNAL OF DISABILITY RESEARCH
- ▶ Kong, FJ; Wang, AH; He, J; Xiong, LI; Xie, DH; Su, JP; Liu, ZY Trend of unintentional suffocation death for infants under 1 year of age from 2009 to 2018 in Hunan, China: a cross-sectional study BMJ OPEN

slides © K Marinelli MD 3-2022



Nice work, Kathleen!

Your chapter reached 50 reads

Achieved on March 3, 2022

Chapter: Bedsharing and Breastfeeding: The Academy of Breastfeeding Medicine Protocol #6, Revision 2019

ResearchGate

slides © K Marinelli MD 3-2022



Durham
University

Infancy & Sleep Centre

22nd Anniversary Conference

Durham Infancy and Sleep Team

Basis
Baby sleep info source

About Us Baby sleep info Resources Co-sleeping Image ba

About Us

Basis is a project of the **Durham Infancy and Sleep Centre** (DISC), in the **Department of Anthropology** at Durham University, UK.

The aim of Basis (the Baby Sleep Information Source) is to provide access to research based evidence about biologically normal infant sleep, in forms that are accessible to parents and health practitioners, supported by references to research relevant to families in the UK. We conceptualise 'biologically normal infant sleep' as being the sleep of babies who are exclusively or predominantly breastfed to at least 6 months of age and cared for in a responsive manner. We do not consider sleep training methods that require leaving babies alone for sleep in the first year of life to be biologically normal.

Basis began as the Infant Sleep Info Source (ISIS) website project, drawing on the combined experience of Professor Haer Ball and her team at the Durham University Post-natal Sleep Lab (now the Durham Infancy & Sleep Centre), and senior representatives from **La Leche League**, **NCT**, and **UNICEF UK Baby Friendly Initiative**, all being organisations working directly in the fields of parent support and health professional training in the UK. All three organisations are experienced in the provision of online information to parents and/or health care providers (midwives, clinicians, health visitors etc.).

The original ISIS website project was funded by a grant from the **ESRC (Economic and Social Research Council)** 'Follow-on Fund' to facilitate and support the translation of research conducted by UK and overseas researchers on issues regarding infant sleep (e.g. development, environments, safety) into an online informational resource.

Following completion of the ESRC project the **Breastfeeding Network** (BN), **Association of Breastfeeding Mothers** (ABM) and **Lactation Consultants of Great Britain** (LCGB) also volunteered to endorse Basis and provide additional expertise in reviewing and disseminating this work.



How babies sleep for parents

How Babies Sleep

Normal Sleep: Development
Why Babies Sleep As They Do
Babies' Biology and Sleep
Infant Sleep in History and Around the World
Sleep Training and Managing How Babies Sleep
Sleep Training Research
Things to Consider – Potential Costs of Sleep Training

<https://www.basisonline.org.uk>

slides © K Marinelli MD 3-2022

Protocol 6 Handout in the works....!!!

Basis Baby sleep info source

Bed-Sharing & Safety

This information sheet summarises research-based evidence about the risks and benefits of babies sharing an adult bed with a parent or parents, and about babies' safety.

For more information on this and many other topics, please visit www.basisonline.org.uk

Many parents bring their baby into their bed to sleep, but for most UK babies this is not where they always or usually sleep. Bed-sharing usually happens for part of the night, or for a couple of nights a week, although some babies sleep all night every night in their mother's or parents' bed.

Although many new parents think they will never sleep with their baby, research shows that many do so, for all kinds of reasons. About 50% of UK babies have bed-shared by the time they are 3 months old, and on any night of the week a fifth of all babies sleep with a parent. Most of these are babies who are being breastfed, and three quarters (70-80%) of breastfed babies sleep with their mother or parents some of the time in the early months. It is important that ALL parents are informed about bed-sharing and have thought about how they will manage night-time care.

Why do people bed-share?

slides © K. Marinelli MD 3-2022



Durham
University

Infancy & Sleep Centre

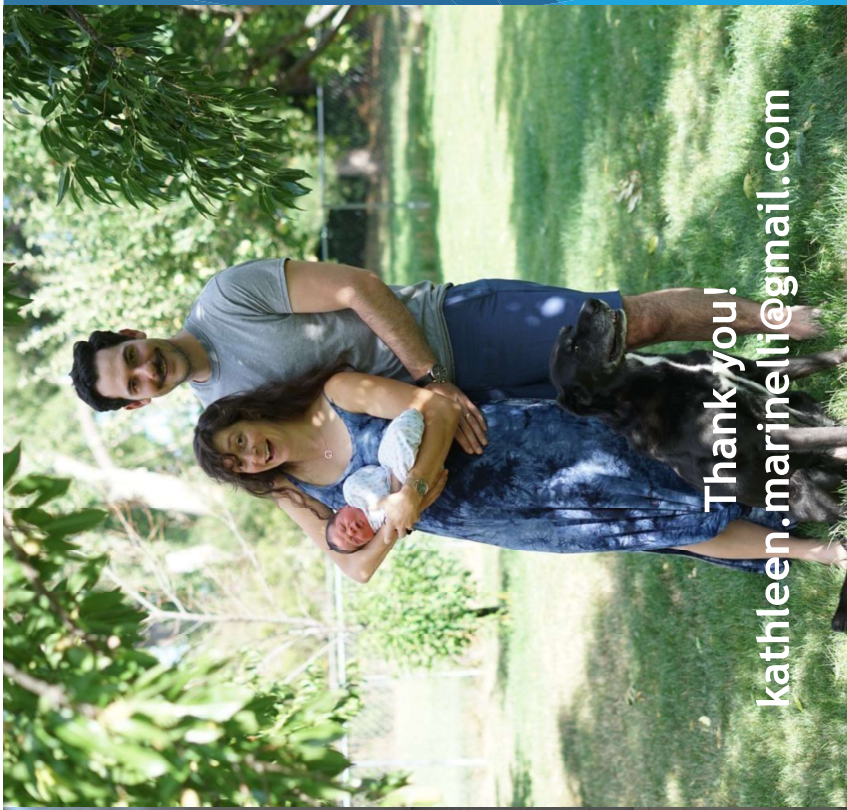
22nd Anniversary Conference

Access to the articles

- ▶ JHL paper is available open access for 3 months through all our social media outlets
 - ▶ https://twitter.com/JHL_Lactation
 - ▶ <https://www.facebook.com/JournalofHumanLactation/>
 - ▶ <https://www.instagram.com/journalofhumanlactation/>
- ▶ The ABM protocol is available at
 - ▶ <https://www.bfmed.org/protocols>



slides © K. Marinelli MD 3-2022



Thank you!
kathleen.marinelli@gmail.com



Durham
University

Infancy & Sleep Centre
22nd Anniversary Conference