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Supporting a 'Bottom-Up,' New, No-Holds-Barred, Psycho-Anthro-Pediatrics: Making Room (Scientifically) for Bedsharing Families

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Substantial lines of evidence from studies of human biology and evolutionary anthropology, including cross-cultural, cross-species, and psychobiological data, help explain the underlying reasons why breastfeeding mothers are inclined to sleep with their infants (1). While surely not an endpoint leading to any single assessment, conclusion or public (including clinical) health recommendation, species-wide biological and psychological data on breastfeeding mothers (as well as breastfed infants) at very least coalesce to give us a powerful beginning point for understanding how and why parent-infant interactions and nighttime caregiving strategies develop as they do. At the same time, the myriad of data summarized here leaves us bewildered with no *consistent* single answer about whether or not any given family should bedshare. But perhaps this is an important clue and is itself a call for concerted action.

Indeed, we enthusiastically welcome Mileva-Seitz and colleagues' (2) proposal to create and put into practice a new integrative set of multi-disciplinary research collaborations and conversations about parent-child bedsharing that can move us beyond the existing kind of 'he said-she said' scientific stalemate that only promises to get us nowhere. Although not likely supportable from any statistical point of view, while reading the paper (2) it *seems* as if for every point, a counterpoint can be found; for every advantage, a disadvantage can be posited; for every benefit, a risk can be identified. But perhaps this dramatic array of conflicting findings is exactly what we need to see in one place, to appreciate just how compelling the demand is to create a new sub-field of infant-parent sleep research to be called Psycho-Anthro -Pediatrics.

This new proposed alliance anticipates more systematic and comprehensive evidence, but nuanced analyses, too, on heretofore unexplored, diverse research questions, findings, and experiments that move beyond simple, all-encompassing (yes-no) generalizations about bedsharing (which, of course, is only one form of same-surface cosleeping). The information produced from more 'broad-based', eclectic research designs (they suggest) might better be able to explain and appreciate outcome variability and to produce data that are more complementary to diverse families, their values and daily experiences, and their lived environments. In doing so, such an approach will be

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more effective in empowering and informing a greater number of receptive parents, many of whom will be bedsharing, at least occasionally.

Within western societies mother-infant cosleeping with breastfeeding has never been considered either “normal” nor necessarily healthy, nor the context within which normative infant sleep data can be scientifically derived. This fact suggests understandably why pediatric sleep researchers may be the most reluctant to forge such collaborations. Surely, these history- and philosophy-of-science issues are not minor but rather strike at the core of the present paradigm. At the same time, their participation is absolutely critical. It will no doubt require courage, and a willingness to positively navigate new terrain and to get beyond traditional tenacious beliefs created by historical circumstances. The historical-contingency of current infant sleep paradigms include the sometimes hidden, underlying assumptions that have for a century privileged solitary infant sleep and other related precepts, disproportionately contributed to by both Freudian and Watsonian ways of thinking. To simplify a bit, the general familiarity with Freud’s Oedipus and Electra complexes (3) and concerns about infant sexuality including the need for conjugal sexual privacy, and Watson’s commitment to the idea that no child could receive too little affection (4) made it easier to think that any alternative to collecting data on a bottle-formula fed, solitary sleeping infant (to understand optimal *human* infant sleep) was scientifically unnecessary and inappropriate, and perhaps even morally indefensible.

And so it was that even before the first squiggly line was recorded by a polygraph from the first formula-fed infant sleep study subject, being monitored while sleeping alone, both a ‘gold standard’ research methodology was being set, and a particular set of expectations for infant’s sleep physiology profiles were being assured. As we now know from many studies, that “normative” profile of infant sleep proved remarkably different from measurements (later) derived from breastfeeding-bedsharing mother-infant dyads.

Indeed, Mileva-Seitz and colleagues are to be congratulated for providing us with an extraordinarily thorough and masterfully organized review of all-things-bedsharing. Their summation, more than anything else, poignantly demonstrates that during the last two decades a seismic (bottom-up) cultural shift has taken place that has profound meaning for the future direction of pediatric sleep medicine and research and allied disciplines. With the resurgence of breastfeeding as the primary western infant feeding method both separate surface and same-surface cosleeping (including bedsharing) has replaced the routine practice of placing infants alone to sleep, with epidemiological evidence legitimizing this change by showing that infants *not* breastfeeding and infants sleeping *outside* the supervision of a caring adult are independent risk factors for the sudden infant death syndrome. (SIDS) 5 and 6.

Moreover, the goal of early infant sleep consolidation historically valorized by the current paradigm (sometimes, along with sleep training itself) comes into direct conflict with the importance infant awakenings to breastfeed (rather than sleeping through the night). We now know that the breastfeeding protection is dose-dependent for many outcomes, whether throughout the first six months of life, or more ideally through to the first year, according to recent epidemiological studies. That is, the more the breastfeeding the stronger the protection from scores of many serious infant illnesses or diseases including death itself 7 and 8. Unless these issues are reconciled by pediatric researchers themselves, that is, emphasizing early infant sleep consolidation over extended breastfeeding, what Mileva-Seitz and colleagues propose could be seriously undermined.

Certainly, the timing could not be better. Regardless of what any one of us may think personally and/or professionally about whether to bedshare or not, or how and when, it would appear that breastfeeding has shifted the behavioral landscape altogether and one consequence of it is that bedsharing is part of familial nighttime routines, and appears to be sticking around, too, but with little or no support from the pediatric community. In fact, to recognize the biological functional interdependence between

breastfeeding and bedsharing, including their physiologically and behaviorally embeddedness, we recently proposed a new term, *breastsleeping*. Our aim is to create a new epidemiological and research category defined by its own distinct physiological and behavioral correlates (1) that acknowledges:

- 1) the role that sustained maternal contact plays in helping to establish breastfeeding;
- 2) the extent to which nightly, on-going maternal-infant sensory exchanges and breastmilk delivery, ingestion and metabolism in the breastsleeping context change maternal-infant sleep variables in practically every way and;
- 3) that the breastsleeping mother-infant dyad exhibits such vastly different behavioral and physiological characteristics compared with the bottle-formula feeding-bedsharing dyad it must be distinguished and categorically differentiated in assessments of potential benefits and risks.

For these reasons, it could be said that natural selection produced a single, integrated bio-behavioral system, i.e. breastsleeping, rather than two separable sub-systems (infant-maternal sleep and breastfeeding). That said, we do recognize, however, the plasticity of human biology and behavior. Human bio-behavioral variability finds expression in and is shaped by the ways in which belief structures differ within- and across-cultures and the ways in which structural inequalities or characteristics of the lived environment alter behavioral possibilities, including for mother-infant dyads in family systems. In total, these factors can greatly affect the distinct variations in the expression of breastsleeping, including whether it is feasible, practical, or desired for certain mothers and families. This makes sensitive engagement with health professionals practicing evidenced based medicine particularly vital.

Consider further that, thus far, as breastfeeding rates continue to climb, so too, does bedsharing, despite attempts by governmental and medical authorities to eradicate it. Indeed, the number of bedsharing families has increased across all ethnic and socio-economic classes in the last decade. And the numbers are impressive. Consider that if only half of the 77% of breastfeeding mothers leaving the hospitals bedshare, out of the approximately 4 million babies born in the USA each year in the United States, on any given night anywhere between one to two million mothers could be found bedsharing with their infants, at least intermittently. Interestingly, most parents do not anticipate bedsharing at all, but as many papers reviewed make clear mothers adopt the practice primarily (and quite simply) because it makes infants happy, i.e. settled, and helps working moms especially manage their milk supply, compensating for emotional time lost with baby by having to work, as well as increasing sleep time, to name but a few additional reasons to bedshare (9).

Indeed, at this historic juncture there may never have been a time point at which at least in western societies there has been a larger disjunction between medically-inspired public health recommendations and what parents actually do, as bedsharing is common in the United States even with the likelihood of significant undercounts (see below). Perhaps this disconnect serves as a good illustration as to why in formulating the principles of evidence based medicine (EBM) Sackett and colleagues (10) argued that the starting point for formulating successful public health strategies and/or recommendations is understanding and respecting “patient values” i.e. what patients experience and feel they need, and/or want to do.

Unfortunately, disagreement and intellectual acrimony concerning the bedsharing issue, likely fueled by the uncompromising recommendation against any and all bedsharing by the American Academy of Pediatrics (AAP), is widespread and cuts across diverse research fields, world wide health organizations (like WHO, UNICEF), professional lactation communities, and discipline-specific lines of research. As these one-size-fit all recommendations against bedsharing have emerged, many rich (complementary) research areas and data sources (such as evolutionary, medical, and cultural anthropology) have been completely cut out from any input as to what public

recommendations or messages should look like and why. Perhaps, even worse, the intensity and vitriolic nature of the discourse against any and all bedsharing have had the unintended consequence of all but shutting down honest, bi-directional engagements between parents and their health providers especially between parents and pediatrician, eliminating opportunities to teach the safest forms of bedsharing and, hence, potentially reducing sleep related deaths.

Parental fears of disapproval and criticism of their bedsharing practices helps explain why so many parents lie to their physicians about it, often because they fear being criticized, or worse, reported to child protective services, and losing custody of their children. While we note that these data have not undergone peer-review, to our knowledge, one recent poll of 600 families in Great Britain revealed that 46% of new mothers when asked if they adhere to governmental sponsored versions of safe infant sleep (no bedsharing) say they do, when they do not (11). Another recent study in the United States showed that among a cohort of young mothers with full knowledge of what the AAP defines as “safe-infant sleep,” including no bedsharing, most rejected or failed to adhere to this contention, choosing instead, like their British counterparts, to sleep with their infants (12).

There is also considerable ethical discomfort amongst thousands of professional lactation consultants around the world and other health professionals, too, whose own ethical standards, according to self reports, are being denied. At risk of being fired they are being banned by their hospital employers from mentioning cosleeping, or introducing ideas about how to reduce bedsharing risks (13). These situations further illustrate why it is critical to move forward with a more inclusive and certainly much broader, flexible, and less intellectually constrained infant sleep paradigm in general, that can ultimately percolate up, leading to more nuanced, bi-directional, family-centered approaches to the bedsharing issue at all institutional and legal levels.

One compelling inference from the review that can be highlighted here is that where an infant sleeps, as it turns out, is not strictly speaking decided on the basis of medical concerns alone, if at all. Rather, infant sleep location is generally determined by the transaction between the infants temperament and parental social and relational experiences, including feeding method (as already mentioned); moreover, where babies sleep reflects the ways parents need and want to express their love and their inclinations and instincts about how best to protect and nurture their infants, all of which come to fruition under the umbrella of broader cultural norms as well as political economic and structural inequality realities (for many) (14). And we must never forget that infants have much to say about where they will sleep, too, motivated by their all-encompassing need for external physiological regulation and emotional support from their caregivers. Owing to their extreme neurological immaturity at birth human infants are inherent contact seekers and, relatedly, parents are emotionally (biologically) equipped and entrained to provide it, maternal agency notwithstanding (14, 15 and 16.)

Another important inference is that bedsharing is anything but a coherent phenomenon, but rather it is heterogeneous, and not a simple discrete variable at all but composed of many variables. It is the identification of these specific independent ‘risk’ factors and how they articulate in the sleep environment (and not simply bedsharing) that determines on what side of the benefits to risks continuum the bedsharing behavior falls. Thus, the safety of bedsharing is repeatedly shown to be influenced by a multiplicity of identifiable interacting (modifiable) factors which compose it, which is why it is inappropriate to reduce bedsharing (as the AAP does) to a singular unitary, discrete phenomenon with a consistent unacceptably high risk across all circumstances.

Thus far, there is no question but that the issue of infants sleeping with their mothers for breastfeeding (or for any other reason) has never really been studied nor considered from anything remotely resembling a level playing field, intellectually speaking. Rather, any putative problems or potential problems, or potential risks, associated with bedsharing quickly become the argument against it, in contrast to the problems

associated with solitary infant sleep (often in cribs) which are simply viewed as problems to be solved. We have to first *value* a behavior before we deem it's associated problems worth fixing. Hence, we must avoid mistaking political concerns, personal preferences, social values, or cultural ideologies for science, and to be careful always to respect the opinions of those most affected by guidelines, remembering first and foremost (in this case) that the final decision as to where any baby sleeps belongs and must remain with the parents who are in the best position to judge their infant's needs in their own context.

Given that breastsleeping is here to stay, and parents are pushing back (if not leading the way here) there seems a very good chance that with increased support from creative new research the gap can be closed between what many parents are doing and the ability of health professionals to provide exactly the kind of information individual families need and want. We must expect that with new attitudes and collaborations between parents and researchers alike, with revised assumptions at its base, it is possible to create a more positive and protective context within which humankind's most successful feeding and sleeping arrangement can still prove adaptive.

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