



Nighttime parenting strategies and sleep-related risks to infants

Lane E. Volpe^{a,*}, Helen L. Ball^{a,b}, James J. McKenna^{c,d}

^a Department of Anthropology, Parent-Infant Sleep Lab, Durham University, UK

^b Wolfson Research Institute for Health & Wellbeing, Durham University, UK

^c Department of Anthropology, University of Notre, Dame, USA

^d Mother-Baby Behavioral Sleep Lab, University of Notre, Dame, USA

ARTICLE INFO

Article history:

Available online 7 July 2012

Keywords:

Infant sleep
Sleep-related risks
Sudden Infant Death Syndrome (SIDS)
Nighttime parenting
USA

ABSTRACT

A large social science and public health literature addresses infant sleep safety, with implications for infant mortality in the context of accidental deaths and Sudden Infant Death Syndrome (SIDS). As part of risk reduction campaigns in the USA, parents are encouraged to place infants supine and to alter infant bedding and elements of the sleep environment, and are discouraged from allowing infants to sleep unsupervised, from bed-sharing either at all or under specific circumstances, or from sofa-sharing. These recommendations are based on findings from large-scale epidemiological studies that generate odds ratios or relative risk statistics for various practices; however, detailed behavioural data on nighttime parenting and infant sleep environments are limited. To address this issue, this paper presents and discusses the implications of four case studies based on overnight observations conducted with first-time mothers and their four-month old infants. These case studies were collected at the Mother-Baby Behavioral Sleep Lab at the University of Notre Dame USA between September 2002 and June 2004. Each case study provides a detailed description based on video analysis of sleep-related risks observed while mother–infant dyads spent the night in a sleep lab. The case studies provide examples of mothers engaged in the strategic management of nighttime parenting for whom sleep-related risks to infants arose as a result of these strategies. Although risk reduction guidelines focus on eliminating potentially risky infant sleep practices as if the probability of death from each were equal, the majority of instances in which these occur are unlikely to result in infant mortality. Therefore, we hypothesise that mothers assess potential costs and benefits within margins of risk which are not acknowledged by risk-reduction campaigns. Exploring why mothers might choose to manage sleep and nighttime parenting in ways that appear to increase potential risks to infants may help illuminate how risks occur for individual infants.

© 2012 Elsevier Ltd. All rights reserved.

Introduction

The infant sleep literature has been driven by concern about sleep-related causes of mortality, particularly accidental deaths and Sudden Infant Death Syndrome (SIDS). A substantial body of research has identified key risk factors, most notably the prone sleeping position as well as smoking, specific aspects of the sleep environment, and other risks (see Ball & Volpe, 2013). In the U.S. SIDS-risk reduction campaigns have encouraged parents to place their infants supine for sleep and in the parents' room, keep their infants smoke-free, and ensure bedding and clothing cannot cover airways or cause infants to overheat; parents are also advised to avoid bed-sharing and sofa-sharing (American Academy of Pediatrics (AAP), 2005; AAP, 2008). These recommendations are

based on findings from large-scale epidemiological studies that generate odds ratios or relative risk statistics for various practices; however, detailed behavioural data on nighttime parenting practices and infant sleep environments are limited. Furthermore, in spite of widely disseminated messages about eliminating known risks, risky practices persist. As we discuss in Ball and Volpe (2013) message exposure alone is insufficient to ensure parental compliance.

Over the past two decades, social scientists have examined infant sleep behaviour and physiology through the lens of evolutionary medicine, addressing the intersection between culturally-influenced caregiving practices and the evolved biology of infancy. Combining behavioural observations with the theoretical framework of evolutionary medicine (see Trevathan, Smith, & McKenna, 2008), social scientists are able to address both proximate (immediate or mechanistic) and ultimate (adaptive) causes for individual behavioural strategies (Tinbergen, 1963). The present study provides detailed descriptions based on video analysis of four

* Corresponding author.

E-mail address: l.e.volpe@durham.ac.uk (L.E. Volpe).

sleep-related risks that occurred to infants sleeping in a sleep lab with their mothers. The cases depict sofa sleeping; unsafe bed-sharing; use of unsafe materials in the sleep environment; and excessive use of soft bedding. These case studies provide examples of mothers engaged in the strategic management of nighttime parenting who displayed compromises in infant care compared to established risk reduction guidelines (AAP, 2005; AAP, 2008). As parents are neither provided with the odds ratios for particular factors, nor told which practices to prioritise, the guidelines present all potential risks as uniformly hazardous, yet parents know that the majority of cases where risks occur do not result in infant mortality. Therefore, mothers assess potential costs and benefits of infant care practices within margins of risk that are not acknowledged by risk reduction campaigns. Social science-based research may prove useful for clinicians and public health professionals by helping to explain how risks impact individual infants and what motivates mothers to engage in particular forms of infant care.

Background

An extensive literature has focused on risk factors for SIDS and other causes of unexpected infant death. This literature and the public health messages that have been developed as a result have been reviewed elsewhere (see Ball & Volpe, 2013). Current policies about infant sleep focus on encouraging parents to eliminate all known risk factors. However, despite the widespread dissemination of this advice, public health recommendations are not uniformly adopted. Observational studies are needed to clarify how these risk factors play out for infants in a variety of environments. Furthermore, observational data are important where the aetiology of risk factors remains poorly understood. For example, although sofa sharing has been identified as a risk factor for SIDS (Blair et al., 2009), the exact mechanisms remain unclear.

Understanding sleep-related risks to infants using social science research

Anthropological discourse has much to offer public health policy and practice, particularly by suggesting a framework for why individuals engage in potentially risky behaviour and how they weigh costs and benefits in forming their behavioural strategies. Life-history theory is a clinically-relevant lens for addressing how individuals strategically plot their life course and continually negotiate trade-offs. One of the key categories of trade-offs related to parental effort involves investing in one's own growth and maintenance versus a child's growth and maintenance (Borgerhoff Mulder, 1992). Parents must plot the best way to invest in their children, weighing the benefits of efforts extended for a particular offspring against the costs incurred by the parent in undertaking such efforts (Clutton-Brock, 1991).

As part of the continual negotiation between parent and child, life-history theory recognises that conflict arises about how, when and to what degree to invest in an individual offspring (Trivers, 1972). Such conflict occurs because parents and offspring are not genetically identical, and therefore have overlapping but different interests and agendas about such investment (Clutton-Brock, 1991). It behoves offspring to obtain greater investment than the parent is able to provide, while it is in the mother's best interest to limit investment (Clutton-Brock, 1991; Trivers, 1972). The way mothers manage the dispersal of their parenting resources demonstrates a finely-tuned "maternal response system" that is calibrated to particular contexts and conditions (Hrdy, 1997, p. 414).

The role of evolutionary theory

It is important that infant sleep be understood within the context of parental investment strategies, since mothers expend parenting effort in ways that impact the degree of risk or protection to which infants are exposed. McDade (2001) used an evolutionary framework to explore the balance between benefits and costs of continued lactation. This approach offered a unique perspective on maternal behaviour and child outcomes, and challenged the idea that maternal and child interests coincide. This study showed the predictive value of life-history theory for understanding health-related behaviour and for informing interventions, and acknowledged that women cannot be expected to engage in a behaviour that is more expensive than their circumstances allow them to tolerate.

An extensive literature has detailed additional factors that cause parents to alter or withdraw investment. These include socio-environmental conditions, such as living in high-risk environments and experiencing unstable material or socio-emotional resources (Chisholm & Coall, 2008), or engaging in specific forms of work and food production (Hewlett, Lamb, Leyendecker, & Scholerich, 2000; Lancaster & Lancaster, 1987). Maternal characteristics such as substance use or mental illness (Soltis, 2004), the availability of alloparents (Borgerhoff Mulder, 1992) or co-resident female kin (Flinn, 1989), the presence of non-biologically related males (Daly & Wilson, 1997; Lancaster & Kaplan, 2000), and paternal support (Quinlan, Quinlan, & Flinn, 2003) also influence capacity for investment. Furthermore, infants are more likely to experience diminished investment if they are extremely ill (Soltis, 2004), are low birth weight (Berezkei, 2001), or are viewed as unlikely to survive harsh living conditions (Scheper-Hughes, 1985).

In the area of infant sleep, existing studies have demonstrated the utility of anthropological perspectives and methods (e.g. Ball, 2002; Ball, Hooker, & Kelly, 1999; McKenna, Mosko, & Richard, 1999). These studies have documented how the complicated prospect of providing care to infants during the night causes parents to adopt strategies and behaviours that they had not planned (Ball, 2007). The manner in which parents approach infant sleep balances infant physiology and temperament with parental goals and desires within a particular social and behavioural context (Anders & Taylor, 1994). The present study adds a detailed description of nighttime parenting behaviour for four mothers and their infants, with a specific focus on how sleep-related risks to infants occurred in the context of nighttime parenting strategies.

Methods

Participants

Participants were drawn from a longitudinal, multi-site parenting study. Primiparous mothers were recruited during the last trimester of pregnancy from prenatal clinics, health care offices, and school-age mothers programs. Participants at the South Bend, Indiana site were invited to complete a sleep study when infants were approximately four months old (see Volpe (2010) for additional details). Overnight infra-red video-recordings for 45 mother–infant dyads were obtained at the Mother–Baby Behavioral Sleep Lab at the University of Notre Dame. Videos were quantitatively analysed, and results for the entire sample have been presented elsewhere (Volpe, 2010). For this paper, four sleep studies were selected as case studies based on the occurrence of sleep-related practices identified as risks in the clinical literature. The four participants presented here include two adolescent and two adult mothers and their infants who completed sleep studies between September 2002 and June 2004.

Download English Version:

<https://daneshyari.com/en/article/952370>

Download Persian Version:

<https://daneshyari.com/article/952370>

[Daneshyari.com](https://daneshyari.com)