



Prevalence of unintentional infant bedsharing

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1. Introduction

In the United States, approximately 3500 infants die annually from sleep-related infant deaths, including sudden infant death syndrome (SIDS), ill-defined deaths, and accidental suffocation and strangulation in bed (American Academy of Pediatrics [AAP] Taskforce on SIDS, 2016). The AAP has made several recommendations, based on epidemiological studies, to reduce the risk of sleep-related infant deaths, including placing infants on their backs, on a separate firm surface, with no soft objects in the sleep area (AAP Taskforce on SIDS, 2016). The peak risk period for SIDS and sleep-related infant deaths is under the age of four months (AAP Taskforce on SIDS, 2016).

Sleep deprivation and fatigue are common challenges for parents of infants (Hunter, Rychnovsky, & Yount, 2009). The care and vigilance required to follow AAP recommendations to keep infants safe can be most challenging during periods of extreme fatigue and sleep deprivation (McGuire, 2013; Stremler et al., 2013). The most challenging time period of sleep deprivation occurs during the infant's first few months of life, which coincide with the highest risk period for sleep-related infant deaths. While the AAP “acknowledges that parents frequently fall asleep while feeding the infant,” (AAP Taskforce on SIDS, 2016, p. 5), limited anecdotal reports have been published to describe the frequency of parents unintentionally falling asleep while caring for infants (Kendall-Tackett, Cong, & Hale, 2010). Two studies have described anecdotal reports of unintentional bedsharing leading to infant death (Blair et al., 2009; Chu, Hackett, & Kaur, 2015). Unintentionally falling asleep with an infant can result in the infant's location being, or becoming, an unsafe environment, whether the infant is asleep or not.

Several terms are used in the literature to describe the act of unintentionally falling asleep with an infant, including accidental bedsharing (Das, Sankar, Agarwal, & Paul, 2014), unplanned bed-sharing (Lee, Baker, Newton, & Ancoli-Israel, 2008), inadvertently falling asleep (Blair et al., 2009; Smith et al., 2016), and accidentally falling asleep (Chu et al., 2015). In general, there is a lack of direct attention given to unintentional bedsharing with an infant; most studies report the behavior as an incidental finding of a larger published study (Blair et al., 2009; Chu et al., 2015). Several authors have noted the limitations of not differentiating between planned/intentional vs. unplanned/

unintentional bedsharing (Das et al., 2014; Smith et al., 2016). The lack of clarity and consistency in reporting on unintentional bedsharing, the lack of data on prevalence, and the limitations mentioned above suggest the need for more focused and systematic attention to the issue. Nurses' role in delivering infant safe sleep education (AWHONN, 2015) suggests the need to begin to advance the science and practice surrounding infant risk related to caregivers unintentionally falling asleep with infants. Therefore, the objective of this study was to determine the prevalence and context of unintentional bedsharing.

2. Methods

This study was conducted as part of a larger descriptive, exploratory survey of parental attitudes in the Midwest. The study received formal review and approval by the university human subjects' board. In order to satisfy a course requirement, graduate and undergraduate students from an advanced psychology course recruited parents primarily living in Wisconsin to complete an online survey in the Spring and Summer semesters of 2018. Study aims were to assess parental attitudes regarding child health and health risks, including questions about unintentional bedsharing, feeding and mealtime practices, and child behavior. Students completed a training in the ethical conduct of research prior to participant recruitment. Inclusion criteria for the study were parents who were at least 18 years of age, had online access, and had a child between one and twelve years of age. Interested participants were provided a link to the online survey via qualtrics.com, wherein they read and electronically signed the informed consent. Upon confirmation that they were at least 18 years of age and indication of understanding of the informed consent, participants were granted access to the survey. No incentives were provided for completion of the survey.

Parents with multiple children were instructed to answer questions based on either their youngest or oldest child, depending on the semester of data recruitment, to get a broader age range. Survey questions included demographic information about parents and the target child. A multidisciplinary team, which was comprised of experts in the fields of Nursing and Clinical Child Psychology, created a survey regarding the frequency, prevalence, and context of bedsharing. Survey questions were based on review of previous literature on bedsharing. Specifically,

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parents answered questions in a “check all that apply” format about whether and how often they bedshared with their child before the age of two (e.g., have never bedshared, have bedshared during naps in bed, naps on a couch or chair, at night in bed, or at night on a couch or chair) and reasons for bedsharing (e.g., just happened (unplanned), facilitate breastfeeding). Descriptive statistics were used to analyze sample demographic information and the prevalence and context of bedsharing. Phi coefficient, rather than chi-square, was used to analyze the association between variables. The phi coefficient adjusts the chi square statistic by the sample size and is often used to assess the association between dichotomous variables (i.e., 2×2 contingency tables; Field, 2013; Pearson, 1900). Independent samples *t*-tests were used to analyze demographic differences on prevalence of unintentional bedsharing.

3. Results

Three hundred seventy-five parents ($N = 375$) completed the survey, ranging in age from 19 to 72 years ($M = 34.4$; $SD = 7.9$) and education from 6 to 20 (or more) years of education ($M = 14.9$; $SD = 2.7$). Majority of participants were mothers (77%), Caucasian (74%), and married (70%). Target children's ages ranged 1–12 years ($M = 5.8$; $SD = 3.5$).

Sixty-six percent ($n = 246$) of parents reported ever bedsharing with their child before the age of two; 25% reported bedsharing between 1 and 25 times, 15% reported bedsharing 25–100 times, and 27% reported bedsharing more than 100 times. Of the 246 parents who reported bedsharing, 44% ($n = 108$) reported unintentional bedsharing. Unintentional bedsharing occurred at night in bed (57%), during naps on a couch or chair (44%), naps in bed (37%), and at night on a couch or chair (19%). When asked about the context within which unintentional bedsharing occurred, of the $n = 35$ who responded, 40% reported falling asleep while breastfeeding, 23% due to exhaustion, and 6% while comforting an infant with a medical condition.

An independent samples *t*-test indicated a significant difference in age for parents who chose “unplanned” as a reason for bedsharing ($M = 32.2$, $SD = 8.3$) and those who did not ($M = 35.4$, $SD = 7.5$), $t(351) = 3.45$, $p = .001$; younger parents were more likely to select “unplanned” as a reason than older parents. There was no significant difference in prevalence of unintentional bedsharing based on parent education or number of children (all $p > .05$).

Phi coefficient indicated a significant difference in the percentage of unintentional bedsharing among parents who have ever bedshared based on marital status ($\Phi = -0.15$, $p < .05$). Fifty-five percent of single parents reported unintentionally bedsharing compared to only 39% of married parents. In contrast, 61% of married parents reported intentionally bedsharing compared to only 45% of single parents. There were no significant differences in prevalence of bedsharing based on parent gender, race/ethnicity, and child gender (all $p > .05$) (Table 1).

4. Conclusions

We found that among parents who bedshared, almost half (44%) reported unintentional bedsharing. This is a concerning finding because when bedsharing is unintended, it is possible that the parent may not have had the opportunity to take actions to preserve infant safety in that setting. Indeed, 44% of parents reported unintentionally bedsharing on couches or chairs during naps, and 19% unintentionally bedshared on couches or chairs at night, locations which pose extreme danger to infants (AAP Task Force on SIDS, 2016). When examining differences between parents who reported unintentional bedsharing and those who did not, we found significant differences in marital status, such that parents who were single were significantly more likely to unintentionally bedshare with their child. This may suggest a difference in instrumental support available to single parenting households compared to dual parenting households. There were also significant differences in parental age, such that younger parents were

Table 1
Demographic differences in unintentional bedsharing among parents who have ever bedshared.

Characteristics	n (%)	Unintentional (n = 108)	Planned (n = 138)	Phi
Marital status				-0.15*
Married	160 (71)	62 (39)	98 (61)	
Single, never married	65 (29)	36 (55)	29 (45)	
Gender				0.00
Female	196 (80)	85 (43)	111 (57)	
Male	48 (20)	21 (44)	27 (56)	
Race/ethnicity				-0.00
Caucasian	175 (72)	75 (43)	100 (57)	
Other	68 (28)	29 (43)	39 (57)	
Number of children				0.03
Only child	78 (32)	32 (41)	46 (59)	
Sibling	166 (68)	73 (44)	93 (56)	
Child gender				0.05
Female	137 (56)	56 (41)	81 (59)	
Male	108 (44)	50 (46)	58 (54)	
Years of education	14.9 (2.7)			

* Indicates significant difference at $p < .05$.

more likely to unintentionally bedshare with their child than older parents. Perhaps older parents with more experience are more knowledgeable about safe sleep environments or can take action to avoid unintentionally falling asleep.

4.1. Limitations

Given the stigma associated with the practice of bedsharing (Kendall-Tackett et al., 2010), we conducted our study retrospectively to minimize the likelihood of deceptive responses, however, it is possible that parents still responded in a socially desirable manner. There is also potential risk of inaccurate responses in retrospective surveys based on errors in memories. The current study did not account for the age at which infants are placed at greatest risk from unintentional bedsharing as presented in the AAP guidelines (AAP Task Force on SIDS, 2016). Since parents retrospectively reported bedsharing prevalence before the age of two, there may be qualitative differences in risk between unintentional bedsharing with a 2-month-old infant compared to a 20-month-old child. Finally, most respondents in this sample were White, more highly educated, and married. Future studies should include a more diverse sample. Despite these limitations, this article is one of limited research that we are aware of which measures unintentional bedsharing.

As suggested by others, when advising parents that a separate sleep surface is recommended for infants, nurses, and other health care professionals, can acknowledge the added risk of unintentional bedsharing, especially on surfaces such as couches and chairs (AAP Taskforce on SIDS, 2016), and provide practical harm reduction strategies (Altfeld et al., 2017; Chu et al., 2015). Clinicians can help to normalize the occurrence of unintentional bedsharing by asking if it has happened, and if so, where. Subsequently, clinicians can engage in supportive conversations about reducing future risk in these situations, for example, by choosing a firm, flat surface, or by providing practical suggestions for avoiding accidentally falling asleep, such as setting a timer to rouse parent after 20 min or arranging for help with infant caregiving to promote parental sleep. Future research on infant sleep practices should include questions regarding intentionality of bedsharing to help quantify and qualify the prevalence and risks associated with unintentional bedsharing.

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