

Review of images of sleeping babies published in New Zealand magazines targeted at women of child bearing age

Judith Clarke and Stephanie Cowan, Change for our Children, Christchurch

Introduction

In New Zealand the rate of SUDI (sudden unexpected death in infancy) has fallen from 250 per year in 1990 to around 50 per year in 2008¹. This is largely due to the education campaign in the 90's to get babies off their tummies and sides and on to their backs for sleeping. Despite these campaigns SUDI is still the leading cause of preventable death in the first year of life. We know that if babies are slept face up, face clear and are smokefree then SUDI would become an extremely rare event. While health industries are aligned with the safe sleep principles, it is important to ensure that parents are receiving a consistent message of importance from all sources. We know that parents are influenced by what they see in magazines and studies from overseas suggest women's magazines often model unsafe sleep positions and environments^{2,3}. The aim of this review was to evaluate pictures in magazines that are read by women of child bearing age to establish if New Zealand magazines are modelling safe infant sleep images to their readers.

Methodology

New Zealand magazine readership data for Q1 2009 – Q4 2009 was obtained from Nielson⁴. The report detailed basic demographic information by age of reader, main household shopper and main income earner. The selection criteria for inclusion in this study were women aged 20+ with a readership of 10% or greater. This was based on the assumption that magazines targeted at women of child bearing age would provide the most images of sleeping infants. Fifteen magazines were identified that met this selection criteria. Three were excluded as they were member only magazines. In addition, five parenting and pregnancy specific magazines were identified that were not included in the Nielson report. Four of these were free publications. In total, 20 magazines were included in the study. (Table 1)

Table 1. Publications included in study

<i>Cuisine^a</i>	<i>NZ Reader's Digest^a</i>
<i>Healthy Food Guide</i>	<i>That's life^a</i>
<i>Little Treasures</i>	<i>Food town magazine^a</i>
<i>Littlies</i>	<i>The TV Guide^a</i>
<i>New Idea</i>	<i>Tots to teens</i>
<i>New Zealand Woman's Weekly</i>	<i>Woman's Day</i>
<i>Next</i>	<i>Your Baby from Bounty</i>
<i>NZ Gardener^a</i>	<i>Your Home and Garden^a</i>
<i>NZ House & Garden^a</i>	<i>Your Pregnancy- Bounty</i>
<i>OHbaby</i>	
<i>Parenting</i>	

^a No pictures of sleeping infants were found in these publications

¹ Child and Youth Mortality review committee: Fifth report to the Ministry of Health 2002-2008,

² Brandi et al. Infant Sleep Environments Depicted in Magazines Targeted to Women of Childbearing Age Paediatrics 2009 124; e422; originally published online Aug 17 2009

³ Revenis M. Infant sleep safety information provided in magazines for parents Paediatr Res. 2002

⁴ www.nz.nielson.com

Most reviewed magazines were published in April or May 2010 except for those quarterly and yearly publications that were reviewed for Autumn 2010 or year 2009-2010. The review of magazines will continue, but this report focuses on the results of the first month review.

Pictures of sleeping infants that appeared as advertisements, with articles or on the cover of magazines were reviewed for adherence to the New Zealand Ministry of Health Safe Sleep recommendations published in March 2010^{5,6}. The recommendation is:

In every place, for every sleep, check that baby is safe:

- Face-up
- Face clear
- Smokefree

Images were excluded where it was uncertain if the baby was asleep. Duplicate images were only counted once. Each image was analysed on the following criteria: (1) infants sleep position, (2) sleep location, (3) adult supervision of sleeping, (4) head covering, (5) sleep surface, (6) evidence of smoking. All these factors were considered when deciding if the image modelled safe sleep or not. The final decision for each image was subjective based on independent analysis of the pictures by three reviewers.

Results

Location of image

Of the 20 publications reviewed, eight had no images of sleeping infants. A total of 37 images from 12 publications were included in the review. Eighteen (49%) were advertisements, 19 (51%) were accompanying an article and 1 (3%) on a magazine cover. There was a range of 0–13 images per publication, with an average of 1.85. Magazines targeted specifically at parents or pregnant women had the highest number of images including Treasures (13), Your Pregnancy Bounty (5) and OHbaby (4).

Sleep position

Of the 37 images of sleeping babies 19 (51%) were on their back, 3 (8%) were on their side, 1 was on its front (3%), and 12 (32%) were being held by an adult or propped in a car seat. The sleep position of 2 babies (5%) was unknown. Two babies were in NICU incubators. Nine babies (24%) were swaddled.

Face Clear

Thirteen infants (32%) had a head covering; 9 infants wore hats and 4 had their head covered with swaddling fabric or blankets. Of the 23 infants who were lying down, four infants (11%) had other objects in the sleep environment; toys (2), NICU safety equipment (2). Two infants were sleeping on soft surfaces.

Smokefree

There was no evidence in any of the images of smoking.

Safe sleeping

Twenty two (59%) of the images reviewed met the Safe Sleep recommendations.

⁵ <http://www.moh.govt.nz/moh.nsf/indexmh/Publications-2010-Safe+sleep+essentials>

⁶ Safe sleep essentials leaflet. Change for our Children 2009. Code HE1228

Discussion

The reason for the high number of images not meeting the Safe Sleep recommendations was due to the number of infants with head covering. Whenever the head is not clear there is potential for the face to be covered. This can in turn lead to asphyxiation. A large US study documented patterns of accidental asphyxia deaths for 2178 infants⁷. A covered face or head was one of the three main causes it found.

Another potential hazard of head covering is overheating. Several studies have established a link between overheating and SIDS^{8,9}. While most of these studies looked at bedding and tog ratings, when a baby has their head covered it reduces their ability to thermally regulate their body.

The prone (front) position is considered to be the most significant risk factor for SIDS¹⁰. In this review the only prone sleeping infant was in a NICU incubator and under constant monitoring. As the image was published without the reader being made aware of the monitoring, it could confuse some parents into thinking that sleeping prone is safe.

The number of infants on their sides was also concerning. The side is an unstable position for babies. Side sleepers change position most of all. While most roll to the back, those that roll to the front are at extra risk from inexperience in this position. This is called the '*unaccustomed prone*' risk and it affects babies usually placed on their side to sleep who are placed prone for the first time, or, who roll to prone. Twenty percent of SIDS deaths in the NZ cot death study involved such babies¹¹.

It was encouraging to note that all swaddled infants were on their backs. Swaddling has been shown to reduce a baby's arousal response, except when babies are on their backs. This may explain the confusing evidence for swaddling and risk of SIDS. Swaddling has been shown to decrease the risk when a baby is back sleeping, but increase it for prone sleeping¹². Swaddling can increase the risk of SIDS for prone-sleeping infants when the arms of the infant are wrapped and the infant may not be able to lift and turn their head to avoid an asphyxial environment. While swaddling has many benefits it is important for parents to know that the safety of swaddling depends on the baby's position, age and sleeping context. It becomes risky when a swaddled infant starts to turn as they may roll onto their tummy and become stuck.

⁷ Drago et al. Infant Mechanical Suffocation Deaths in the United States 1980-1997 Pediatrics 1999 May 103 (5)

⁸ Ponsonby. et. Al Thermal environment and sudden infant death syndrome BMJ 1992;304:277-282

⁹ Fleming et al Interaction between bedding and sleeping position in the sudden infant death syndrome: a population based case-control study BMJ 1990; 301:85-9

¹⁰ Sullivan F.S Barlow S Review of risk factors for Sudden infant death syndrome Paediatric and Perinatal Epidemiology 2001 15, 144-200

¹¹ Cowan. S. Safe Start Education Change for our Children April 2009

¹² Thach BT. Does swaddling decrease or Increase the Risk for Sudden Infant Death Syndrome? J Pediatr 2009; 155:461-2

Recommendations

The initial stage of the review has highlighted several key points and we make the following recommendations to the editors of publications included in this study:

1. **Make strong policy:** for aligning images of sleeping babies in your publication with the safety recommendations of the New Zealand Ministry of Health
2. **Develop clear systems for:**
 - a. Checking that images of babies model the safe sleep principles of face-up, face clear, smokefree
 - b. Checking that images represent a safe infant sleep environment i.e. all potential hazards removed. Potential hazards include:
 - Unsafe positions: Propped, slouched, chin to chest, or lying on the side or front
 - Unsafe surfaces: Pillows, V-pillows, soft mattresses, bean bags, thin plastic
 - Unsafe places: Couches, chairs, make shift beds near walls
 - Unsafe bedding: loose covers, duvets, pillows, loosely fitting mattresses, toys
 - Unsafe head covering: hats, wrapping that covers the head, loose swaddling

Conclusion

This study is part of a wider project to remove signs and signals that weaken perceptions of importance in recommended safe sleep practices. By removing environmental signals that undermine what is promoted as best for babies, in the form of magazine images, the context for supporting parents to act with safety is strengthened.

For correspondence:

Judith Clarke

Change for our Children

PO Box 13 864

Christchurch

DDI: 03 353 9262

judith@changeforourchildren.co.nz

www.changeforourchildren.co.nz

1 June 2010