Let's Talk About Sleep! A feasibility study of a new approach for improving infant sleep-sharing safety

Project management team

Ms Cassandra Yuill, Project Manager Sunderland, Durham University
Dr Catherine Taylor, Project Manager Fife, Durham University
Dr Peter Blair, Co-Investigator, Bristol University
Dr Charlotte Russell, Co-Investigator, Durham University
Prof Helen Ball, Principal Investigator, Durham University

Local clinical team

Ms Jo Knight, Lead Research Midwife (Oct 2015-Jan 2016)
Ms Kirsten Herdman, Lead Research Midwife (Feb 2016- Jul 2016)
Mr Kim Hinshaw, Local Investigator, Sunderland Royal Hospital

Ms Sharon Black, Research Nurse, NHS Fife / Kirckaldy Hospital
Ms Anette Lobo, Local Investigator, NHS Fife / Kirckaldy Hospital

Sponsor & Funders

Project Sponsor: Durham University
Project Co-Funder: ESRC Impact Acceleration Fund
Project Co-Funder: Lullaby Trust
Project Co-Funder: Scottish Government (Maternl & Infant Health)

Project Partners

Best Beginnings: Ms Helen Hunter
Lullaby Trust: Ms Francine Bates
UNICEF UK: Dr Francesca Entwhistle / Ms Sue Ashmore
Scottish Cot Death Trust: Ms Lynsey Allan

Let's Talk About Sleep Feasibility Study

Combined Report Executive Summary

Study design and aims

Two feasibility studies (on in NHS Sunderland and one in NHS Fife) aimed to assess the potential for conducting a large randomised trial of safe-sleep enablers, embedded within an educational intervention for parents at risk of hazardous co-sleeping, within the UK. We sought to develop intervention materials and seek input on them from parent, user, and expert panels; to develop and trial training for health professionals delivering the intervention; and using a pre-test/post-test design to obtain data from 60 control and 60 intervention families on the components of the intervention, data collection at 1 and 2 months postnatally, recruitment and drop-out rates, and adverse events; and assess the potential effectiveness of the intervention and barriers to implementation.

Recruitment & follow-up

A team of half-time research midwives at Sunderland Royal Infirmary conducted recruitment and delivered the intervention in an antenatal setting and on the post-natal ward. A full-time project manager in Durham conducted all data collection, administering questionnaires and sleep diaries via email and by phone, and conducting telephone interviews. The midwifery team approached 208 potential participants (105 control, 103 intervention) and recruited 99 participant families (60 control, 39 intervention). Administering the project in Fife was the responsibility of a full-time project research nurse employed by NHS Fife with the support of a part-time project manager based in Durham who collated the data and completed some of the interviews. Participants were recruited via clinical referrals or face-to-face at Victoria Hospital, Kirkcaldy resulting in 50 participant families (10 control and 40 intervention). Data regarding approaches was not recorded. Overall at both sites, therefore, 70 control and 79 intervention families were recruited. The nature of the intervention was a barrier to some recruitment, as was the restricted pool of eligible participants available in the hospital setting in both locations. Follow-up data collection was conducted by the academic research team for Sunderland and by both the Research Nurse and the academic research manager for Fife. Complete data were obtained for 46 participants (30 control and 16 intervention) in Sunderland and for 34 participants (8 control and 26 intervention (38 control and 42 intervention overall) Offering participants multiple options for completing follow-up surveys (home visits, telephone or online survey) facilitated data capture. Useful feedback was obtained on the data collection tools and participants in both sites described their participation as simple, easy, enjoyable and interesting.

Acceptability of the intervention

The educational materials were highly praised by participants, midwives, and research nurse as being practical and realistic, and providing helpful information. The safe sleep enabler (a clear plastic Baby Bed Box for use in the parental bed as a strategy for avoiding potentially hazardous co-sleeping) was received variably with some participants using it extensively and reviewing it favourably, and others finding it more difficult to use for reasons of design, context. Many of those who chose not to use the box still said that they liked the concept and would recommend it for use by other parents. Overall the intervention appeared to have some effect on aspects of hazardous co-sleeping in Sunderland, particularly sofa-sharing (23% of control vs 6% of intervention participants slept on a sofa with their baby at 1 month), and possibly extreme fatigue (27% of control vs 13% of intervention participants were extremely fatigued at 2 months). Overall, in Fife, although the proportion of sleep diary nights on which co-sleeping was reported was substantially lower in the intervention group than the control group (not significant), the intervention appears to have had little effect on aspects of hazardous co-sleeping: no significant differences were found between the intervention and control groups, but it should be remembered the numbers in the control group in Fife were particularly small. Combined analysis of the Sunderland and Fife data suggest less co-sleeping in the intervention group compared with the control group (mean 6.8 hours compared with mean 2.6 hours at 2 months (not significant). Baby bed boxes were used for a mean of 27 hours over the 10 night data collection period. Qualitative interviews indicated that many of the boxes were also used around the house for day-time sleep, when making overnight visits, and for keeping the baby in close proximity to a carer during the day.

Implications for clinical practice and future research

Further data are needed to ascertain whether there is sufficient evidence to suggest this is an intervention worth pursuing in a large scale (multi-centre) RCT. While we appear to have produced a good educational intervention the Baby Bed Box may require some tweaking. We have established robust methods for data collection and follow-up, but the timing and context of recruitment for a large trial

needs to be considered further. The Fife project confirms that face-to-face delivery of the intervention in participants' homes was received more positively than delivery during antenatal hospital visits.

Let's Talk About Sleep Feasibility Study
Combined Evaluation of Objectives

<table>
<tr><th>Sunderland</th><th>Fife</th></tr>
<tr><td colspan="2">1. Refine and improve the ISST with input from expert, user and parent panels,</td></tr>
<tr><td colspan="2">Fully accomplished. The images and overall design of the ISST were revised for this study while the text and tone were slightly modified. As the ISST was devised and tested as part of a previous project it has now been tested in multiple settings and found to be effective as a tool for supporting conversations between health professionals and parents. Both HCPs and parents like the practicality and realism of the ISST. Use of the ISSB is well integrated into the tool.</td></tr>
<tr><td colspan="2">2. Develop a training framework for HPs into which the ISST and Baby Bed Box are embedded</td></tr>
<tr><td>Partially accomplished. Training information has been developed and tested, and received positive evaluations. The project team were dissatisfied with the implementation of the training as we were unable to train all project staff together, and training occurred in a very informal setting. Some participant comments suggested that the recruitment team had not fully grasped the importance of the educational component of the intervention.</td><td>Accomplished (limited). Training information has been developed and tested, and was positively evaluated..

The project team conducted individual staff training in Fife as there was only one project research nurse who fully grasped the importance of the educational component of the intervention.</td></tr>
<tr><td colspan="2">3. Develop and evaluate criteria for offering parents a Baby Bed Box,</td></tr>
<tr><td colspan="2">Fully accomplished. Criteria were developed based on the likelihood of hazardous co-sleeping, a reduction in which was the main outcome for this intervention. Boxes were offered to young parents, parents who had smoked in pregnancy, and those known to be substance users. We did not recruit parents with premature or low birth-weight infants as this would have required postnatal recruitment at discharge from the neonatal nursery. It was discussed during the project that this group would particularly benefit from being able to keep their babies in close proximity but without direct bed-sharing. We propose extending the criteria to include these parents in future. We also recommend the ISSB be used outside the parents' bedroom to provide a safe sleep space for the baby when sleeping away from home or in other parts of the house.</td></tr>
<tr><td colspan="2">4. Evaluate the HCP training with users</td></tr>
<tr><td>Poorly accomplished. Only 1 of the 5 research midwives completed the knowledge survey, while 2 of the 5 completed the evaluation form. We are therefore unable to evaluate whether the training improved the team's knowledge regarding infant sleep location and safety.</td><td>Accomplished (limited). The lone research nurse completed the knowledge and self-efficacy surveys, and the evaluation form. She reported that the training met her needs and her knowledge was improved.</td></tr>
<tr><td colspan="2">5. Design and source Baby Bed Box and evaluate with experts, users and parents,</td></tr>
<tr><td colspan="2">Fully accomplished. Designing, sourcing and evaluating the ISSB took the first 6 months of the project prior to seeking NHS Ethical approval for the feasibility study. Feedback was sought from parent, midwife and expert panels at multiple meetings. Parent and midwife feedback was sought on the ISSB design at the end of their participation in the feasibility study. Response was mixed, some loving it, others disliking its utilitarian nature. Similarity to the hospital bassinet was considered positively by some – others would prefer a more customised and expensive looking option.</td></tr>
<tr><td colspan="2">6. Develop and evaluate instructions for use of Baby Bed Boxes</td></tr>
</table>

Partially accomplished Instructions for the use of the ISSB was embedded in the ISST, and the staff training sessions, and was separately emphasised to parents via the safety contract all parents receiving an ISSB were required to sign, and via safety stickers placed on the box itself. No feedback was received from either participants or health professionals regarding any aspects of the instructions for use. Two thirds of parents reported that they liked using ISSB and felt comfortable doing so, while three quarters of participants felt their infant was safe in the ISSB.	Partially accomplished Instructions for the use of the ISSB was embedded in the ISST, and the staff training sessions, and was separately emphasised to parents via the safety contract all parents receiving an ISSB were required to sign, and via safety stickers placed on the box itself. No feedback was received from either participants or health professionals regarding any aspects of the instructions for use. Three-quarters of parents reported that they liked using ISSB and felt comfortable doing so, and three quarters of participants felt their infant was safe in the ISSB.
7. Develop and trial methods and instruments for evaluating provider self-efficacy	
Not accomplished. Although we developed instruments for evaluating the self-efficacy of the midwives delivering the intervention, we were not successful in getting these completed by the research midwifery team.	Accomplished (limited). We developed instruments for evaluating the self-efficacy of the health professionals delivering the intervention, and one was completed by the research nurse, indicating she felt competent in delivering the intervention.
8. Develop and evaluate data recording forms for use by HPs and parents	
Fully accomplished. A majority of the parent participants completed the surveys online, receiving links via e-mail or over text. In follow-up interviews, most of the parents reported that the data collection forms were easy to complete. Several participants found some of the wording of the knowledge statements confusing, and these should be revised for future use. Midwives used the information sheet, consent form, and consent to contact form we provided for recruitment but created their own data collection forms for use within the hospital and provided summary data to the project manager by email (control group) and phone (intervention group).	Fully accomplished. A majority of the parent participants completed the surveys online, receiving links via e-mail or over text, or in person with the research nurse during home visits. In follow-up interviews, most of the parents reported that the data collection forms were easy to complete. Several participants found some of the wording of the knowledge statements confusing, and these should be revised for future use. The research nurse used the information sheet, consent form, and consent to contact form we provided for recruitment and provided summary data to the project manager by email.
9. Design telephone surveys, sleep diaries and adverse event reporting mechanism	
Fully accomplished. Surveys and sleep diaries were designed to be completed via multiple formats and participants were provided with the option of their choice. Some completed and posted paper forms, others completed the forms online (via Bristol Online Surveys), while others were completed by the project manager by asking the participant the relevant questions via phone. The latter provided the most complete answers. Some parents provided minor suggestions for improving the data capture methods used.	Fully accomplished. Surveys and sleep diaries were designed to be completed via multiple formats and participants were provided with the option of their choice. Some completed and posted paper forms, others completed the forms online (via Bristol Online Surveys), others were completed by the project manager by asking the participant the relevant questions via phone, and others were completed during home visits by the research nurse. The latter provided the most complete answers and were particularly valued by participants with poor reading and writing skills. Some parents provided minor suggestions for improving the data capture methods used.
10. Conduct pre-test/post-test study to identify recruitment and drop-out rates, implementation issues	
Fully accomplished. Recruitment targets were met for the control group but not for the intervention group (60 vs 39 participants). 57% of eligible parents approached for the control group were enrolled vs 38% for the intervention group. The total number of eligible parents who were screened but not approached (missed recruits) was not provided by the research midwives. An	Fully accomplished. Recruitment targets were not met for the control group but were met for the intervention group (10 vs 50 participants). A total of 25 consent to contact referral were received (5 control and 15 intervention), of which 16 women enrolled (5 control and 11 intervention). The total number of eligible parents on the wards who were not approached or

equal proportion of parents from both groups gave consent to contact, but failed to respond when contacted about enrolment (21% vs 20%). The requirement that research midwives recruit participants hindered our ability to recruit in community NHS settings, as did the slow and elaborate process for gaining a research passport. The research passport delays meant that project staff were unable to conduct any recruitment, despite completing GCP training. Attrition rates were as expected. We anticipated that approximately 50% of recruits would drop out or be lost to follow-up: 53/99 (53%) of participants dropped out during the study (50% in control group; 59% in intervention group).	who declined after being approached was not recorded. However, on a typical day, the research nurse screened approximately 50 medical records resulting in only a small number of women (an average of less than five) being identified as eligible to participate and approached. This would result in between 0-2 women enrolling in the study on a daily basis. Delays with the IRAS approval system meant the recruitment targets were reduced and an emphasis placed on intervention group recruitment. Attrition from the control group was 2/10 (20%) and 14/40 (35%) in the intervention group for an overall attrition rate of 27%. We attribute the lower attrition rate in the Fife than Sunderland intervention groups to be due to the personal contact and home visits provided by the research nurse.
11. Investigate any adverse events/accidents,	
Fully accomplished. A robust adverse event reporting mechanism was put in place and all relevant participants and staff were reminded of how to report adverse events; none were reported.	
12. Assess preliminary effectiveness and acceptability of total intervention package,	
Partially accomplished. The parental education package (ISST) was effective in facilitating safe co-sleeping discussions between parents and health professionals, parents gave positive feedback about the ISST and were more likely to acknowledge their plans to bed-share with their infant. They rated the provision of safe sleep by a midwife, and its helpfulness more highly in the intervention than the control group. Fewer participants reported sleeping with their baby on a sofa in the intervention group at one month (6%) compared with the control group (23%), however this was not sustained into the 2nd month (13% vs 17%). The ISSB portion of the intervention was received variably – some participants used it extensively, others liked the idea but found some barriers to using it, and another group disliked it and declined to participate. The utilitarian appearance, or the idea of putting their baby to sleep in a box was off-putting to some, while the similarity of the box to a hospital bassinette appealed to others. More data on parental use of the ISSB is required to determine whether it has the potential to be an effective option for reducing hazardous co-sleeping.	Partially accomplished. The parental education package (ISST) was effective in facilitating safe co-sleeping discussions between parents and health professionals, parents gave positive feedback about the ISST and were more likely to acknowledge their plans to bed-share with their infant. They rated the provision of safe sleep by the research nurse, and its helpfulness more highly in the intervention than the control group. More participants reported sleeping with their baby on a sofa in the intervention group at one month (12%) and two months (8%) compared with the control group at either point (0%), however the control group was very small. The ISSB portion of the intervention was received variably – some participants used it extensively, others liked the idea but found some barriers to using it, and another group disliked it and declined to participate. The utilitarian appearance, or the idea of putting their baby to sleep in a box was off-putting to some, while the similarity of the box to a hospital bassinette appealed to others. The comments of participants in the follow-up interviews suggests that the educational intervention combined with the ISSB has the potential to be an effective option for reducing hazardous co-sleeping.
Combined analysis (see separate data tables) Intervention group participants were approximately 2 years younger than control group participants, but there were no other differences. Twice as many control group parents sofa-shared than in the intervention group at 1 month, but this was not significant. 55% of 1 month old participant babies, and 41% of 2 month old participant babies slept in the ISSB for some of their sleep time during the sleep survey weeks, At 2 months there was a substantially (but not significantly) smaller mean duration of co-sleeping over the 5-night sleep survey period (6.8 hours cf 2.8 hours). Of the 23 babies who used the ISSB the average duration of use was 49.2 hours (over two 5-night periods across both months). The intervention group participants felt they received better information about infant sleep safety (significant) and thought more about where their baby's sleep safety (significant). They demonstrated a better knowledge of SIDS and reasons for co-sleeping.	

13. Assess the data needed for a full economic evaluation.	
Partially accomplished. We collected data on the costs of the intervention materials but a full economic evaluation would need to take staff time into account. Midwives reported spending approximately 10 minutes with each participant in explaining the ISST. We do not have any data on how long was required for the transfer of the box and completion of the safety contract.	Partially accomplished. We collected data on the costs of the intervention materials but a full economic evaluation would need to take staff time into account. Home visits were the most time-consuming aspect of the intervention and data collection.

Combined data tables – note study was powered for feasibility, not for meaningful statistical analyses.

1. Demographic characteristics of participants

	Control Group			Intervention Group			C vs I*
	Completers	Non-completers	p-value[1]	Completers	Non-completers	p-value[1]	p-value[1]
Mean maternal age	23.3 (36)	22.6 (29)	0.52[2]	21.4 (39)	22.3 (34)	0.27[2]	0.048[2]
Young mums (<25yrs)	78% (28/36)	83% (24/29)	0.62	85% (33/39)	98% (30/34)	0.74[3]	0.45
First baby	63% (24/38)	53% (17/32)	0.40	71% (29/41)	53% (19/36)	0.11	0.47
Maternal Smoker	24% (9/38)	45% (14/31)	0.06	31% (13/42)	43% (15/35)	0.28	0.47
Smoked in pregnancy	29% (11/38)	48% (15/31)	0.10	31% (13/42)	51% (18/35)	0.07	0.85
Married/Partner	56% (19/34)	47% (14/30)	0.46	63% (26/41)	66% (23/35)	0.84	0.51
Education (> GCSE)	29% (5/17)	17% (4/23)	0.46[3]	11% (1/9)	12% (2/17)	1.0[3]	0.38[3]
Family income < £30K	87% (20/23)	96% (21/22)	0.61[3]	92% (12/13)	100% (19/19)	0.41[3]	1.0[3]
Ethnicity (White)	100% (28)	100% (27)	-	94% (15/16)[4]	100% (22/22)	-	-
Infant sex (male)	53% (16/30)	44% (10/23)	0.48	56% (9/16)	45% (10/22)	0.51	0.84

1 – Chi-square test unless otherwise stated; 2 – T-test for unpaired samples; 3 - Using Fishers Exact Test; 4 – Polish ethnicity
* For completers

Table 3: Outcomes of the demographic data collection between completers and non-completers in both the control and intervention groups and between the control and intervention group.

Note in the combined data the intervention group mums are significantly younger than the control mums (by around 2 years, p=0.048)

2. Combined sleep survey data (1 week each) at 1 and 2 months

Variable[1]	Control % (n/N)	Intervention % (n/N)	p-value[1]
1-week sleep survey when baby 1 month old			
Mother experienced extreme fatigue	45% (17/38)	36% (15/42)	0.41
Either parent consumed alcohol	13% (5/38)	9% (4/42)	0.73[2]
Any medication use by either parent	40% (15/38)	36% (15/42)	0.73
Illegal drug use by either parent	3% (1/38)	0% (0/42)	0.48[2]
Tobacco use by either parent	37% (14/38)	36% (15/42)	0.92
Parent and baby sofa shared (for sleep)	18% (7/38)	9% (4/42)	0.25[2]
Parent and baby bed-shared (for sleep)	37% (14/38)	29% (12/42)	0.43
Baby exposed to potentially hazardous co-sleeping	29% (11/38)	24% (10/42)	0.60
Baby slept in ISSB in parental bed	-	55% (23/42)	-
Mean [SD] co-sleeping hours (5 night period)	4.1 [6.9] hrs (38/38)	3.4 [6.8] hrs (42/42)	0.66[3]
Mean hours of ISSB use (5 night period)	-	14.8 [19.8] hrs (42/42)	
1-week sleep survey when baby 2 months old			
Mother experienced extreme fatigue	26% (10/38)	16% (6/41)	0.20
Either parent consumed alcohol	5% (2/38)	12% (5/42)	0.44[2]
Any medication use by either parent	26% (10/38)	29% (12/42)	0.82
Illegal drug use by either parent	3% (1/38)	0% (0/42)	0.48[2]
Tobacco use by either parent	34% (13/38)	26% (15/42)	0.89
Parent and baby sofa shared (for sleep)	13% (5/38)	10% (4/42)	0.73[2]
Parent and baby bed-shared (for sleep)	34% (13/38)	31% (13/42)	0.75
Baby exposed to potentially hazardous co-sleeping	18% (7/38)	24% (10/42)	0.56
Baby slept in ISSB in parental bed	-	41% (17/42)	-
Mean [SD] co-sleeping hours (5 night period)	6.8 [14.2] hrs (38)	2.6 [5.7] hrs (42)	0.09[3]
Mean [SD] hrs of ISSB use (5 night period)	-	12.2 [18.1] hrs (42)	-
Both months			
Mean [SD] co-sleeping hrs (10 night period)	10.9 [19.1] hrs (38)	6.0 [11.3] hrs (42)	0.17[3]
Mean [SD] hrs of ISSB use (10 night period)	-	27.0 [34.8] hrs (42)	-

1 – Using chi-square unless otherwise stated; 2 - Using Fisher's exact test; 3 - Unpaired t-test

[1] Extreme fatigue = 1 or more nights rated 5 on a 5-point scale for fatigue; Alcohol use = More than 2 units alcohol consumed on 1 or more nights; Any medication use = Any medication taken on 1 or more nights; Illegal drug use = Any illegal drugs taken on 1 or more nights; Tobacco use = Any tobacco use on 1 or more nights; Sofa share presence = Any reported adult sleeping with baby on sofa on 1 or more nights; Bed-share = Any reported adult sleeping with baby in bed on 1 or more nights; Potentially hazardous co-sleeping = Any reported sofa-share or bed-share with smoker, consumer of alcohol or illegal drug; ISSB use = Any reported adult sleeping with baby in bed-box in adult bed. See section 4.7 for more details.

Table 4: Co-sleeping frequency, ISSB use frequency and presence of potential co-sleep hazards on one or more sleep surveys

The average number of hours the baby box was used amongst the 42 intervention participants was 27.0 hours, although 19 of these participants did not use the ISSB. Of the 23 who did, the average duration of use was 49.2 hours (over two 5-night periods across both months).

3. Combined parental self-efficacy data at 2 months

Statement	Control Agree % (n/N)[1]	Intervention Agree % (n/N)[1]	p-value[2]
My midwife/GP has talked about baby sleep and baby sleep safety with me.	71% (27/38)	90% (36/40)	0.03
I understand the information my midwife gave me about baby sleep safety.	76% (29/38)	97% (38/39)	0.006[3]
I know the difference between bed-sharing and co-sleeping.	71% (27/38)	83% (33/40)	0.23
I feel like this clinic gives out good information on baby sleep and how to do it safely.	61% (23/38)	78% (31/40)	0.10
Baby sleep safety is important to me.	97% (37/38)	98% (39/40)	1.0
I feel confident using the information about baby sleep and baby sleep safety.	95% (36/38)	100% (40/40)	0.23[3]
I often think about where my baby will sleep and baby sleep safety.	74% (28/38)	93% (37/40)	0.03
I know how to make a safe sleeping space for my baby.	97% (37/38)	98% (39/40)	1.0
My midwife/GP gave me enough information of baby sleep and baby sleep safety.	68% (26/38)	83% (33/40)	0.15
I understood the "Where might my baby sleep?" leaflet and videos.	-	87% (34/39)	-
I found "Where might my baby sleep?" leaflet and videos helpful for when I think about baby sleep safety.	-	82% (32/39)	-
I feel comfortable using the Baby Bed Box.	-	72% (28/39)	-
I like using the Baby Bed Box.	-	72% (28/39)	-
I feel like my baby is safe in the Baby Bed Box.	-	77% (30/39)	-
1 – A response of unsure was treated as to disagree; 2 - Using chi-square unless otherwise stated; 3 - Using Fisher's exact test			

Table 5: Results from the control and intervention groups' self-efficacy surveys

4. Combined parental knowledge survey data at 2 months

Question	Controls (N=38)	Intervention (N=42)	p-value[1]
Accurate SIDS explanation given (see section 4.73 for scoring)	29% (10/35)	40% (14/35)	0.31
Accurate SIDS rate given (see section 4.73 for scoring)	8% (3/38)	26% (10/39)	0.04
3 risk reductions given (see section 4.73 for scoring)	69% (25/36)	80% (28/35)	0.31
Plans to bed-share (Yes or Maybe)	16% (6/37)	36% (14/39)	0.052
Did or does breastfeed (Yes)	26% (10/38)	38% (15/40)	0.34
Concerned about SIDS and accidents (Yes)	74% (28/38)	80% (32/40)	0.51
Confidence in SIDS and sleep safety knowledge (Yes)	81% (30/37)	92% (36/39)	0.19[2]
Sleep environment			
I should use lots of pillows and duvets to keep baby warm and comfy. (Disagree)	100% (36/38)	100% (40/40)	0.23[2]
There should be no cushions or soft toys in a baby's sleeping space. (Agree)	87% (33/38)	78% (31/40)	0.28
It is OK if someone smokes near a baby. (Disagree)	97% (37/38)	100% (40/40)	0.49[2]
Babies should not sleep in bed with other children. (Agree)	73% (27/37)	60% (24/40)	0.23
Using a baby monitor prevents SIDS. (Disagree)	50% (19/38)	53% (21/40)	0.82
Babies should sleep on firm mattresses rather than soft ones. (Agree)	61% (23/38)	68% (27/40)	0.52
Infant care			
Babies should always be placed with their feet at the foot of a cot. (Agree)	97% (37/38)	95% (38/40)	1.0[2]
Babies should always be put down on their backs to sleep. (Agree)	97% (37/38)	98% (39/40)	1.0[2]
Parents who have been drinking alcohol or taking drugs shouldn't bring their babies into their bed. (Agree)	82% (31/38)	78% (31/40)	0.66
Babies shouldn't sleep in a room alone before they're 6 months old. (Agree)	63% (24/38)	70% (28/40)	0.52
Only mums who breastfeed need to avoid drinking alcohol. (Disagree)	61% (23/38)	75% (30/40)	0.17
Other			
It is OK to sleep with a baby who was born premature or low birth weight. (Disagree)	92% (35/38)	85% (34/40)	0.48[2]
If you smoked during pregnancy, it's OK to bring your baby into bed to sleep. (Disagree)	92% (35/38)	85% (34/40)	0.48[2]
It's ok to sometimes fall asleep on a sofa or an armchair with a baby. (Disagree)	82% (31/38)	90% (36/40)	0.29
The only people who fall asleep with their babies are breastfeeding mums. (Disagree)	71% (27/38)	88% (35/40)	0.07
It is OK to let a baby sleep alone on an adult bed. (Disagree)	95% (36/38)	90% (36/40)	0.68[2]
If your baby is in your bed you should prop him up on a pillow by your face. (Disagree)	87% (33/38)	80% (32/34)	0.42
1 – Using chi-square unless otherwise stated; 2 - Using Fisher's exact test			

Table 6: Results from the baseline and intervention groups knowledge surveys

5. Combined data on sources of infant sleep information

	Control (N=38)		Intervention (N=42)	
	Where did you get information about safe sleep for babies? % (n/36)	Which did you find helpful? % (n/36)	Where did you get information about safe sleep for babies? % (n/40)	Which did you find helpful? % (n/40)
GP	17% (6)	14% (5)	25% (10)	21% (21)
Midwife	72% (26)	56% (20)	85% (34)	78% (31)
Health visitor	72% (26)	67% (24)	68% (27)	60% (24)
Friend	19% (7)	19% (7)	25% (10)	20% (8)
Family member	36% (13)	39% (14)	48% (19)	40% (16)
Internet	47% (17)	36% (13)	30% (12)	33% (13)
Leaflet	33% (12)	31% (11)	68% (27)	65% (26)
Book, magazine	6% (2)	8% (3)	10% (4)	8% (3)

Table 7: Control and intervention groups report on from whom they received infant sleep information and if it is helpful