ARTICLE

Trialling a shaken baby syndrome prevention programme in the Auckland District Health Board

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ABSTRACT

AIM: To describe and evaluate a shaken baby prevention programme trialled in the Auckland District Health Board from January 2010, to December 2011.

METHOD: Development and implementation of the programme, telephone survey of a sample of caregivers and written survey of a sample of providers.

RESULTS: At least 2,592 caregivers received the trial programme. 150 (6%) were surveyed by telephone a median of 6 weeks later. 128 (85%) remembered at least one key message, unprompted; most commonly “It’s OK to walk away” (94/150, 63%). When asked, 92% had made a plan for what to do when frustrated and 63% had shared the information with others. Only 98/150 (65%) watched the programme DVD. Many said they already knew about the risks of shaking a baby, but still found the programme highly relevant. Thirty-one nurses were surveyed. There was a high degree of agreement that the programme was relevant. Barriers to programme delivery included time, workload and the documentation required.

CONCLUSION: A shaken baby prevention programme adapted to New Zealand can be introduced in a District Health Board and is acceptable to caregivers and health professionals. Further research is needed to evaluate the content, mode of delivery and effectiveness of this programme.

S haken Baby Syndrome (SBS) is a well-known term for the most common cause of head injury in infancy, with a peak incidence under six months. It usually results from a violent response to crying, and many more infants may be shaken than diagnosed. In New Zealand, the diagnosed incidence is 22–31/100,000 infants, and may be increasing.

Most infants with SBS suffer permanent effects. The lifetime cost to New Zealand exceeds one million dollars per child, including health and ACC costs, educational costs and the costs of statutory intervention. There is a clear economic argument for an injury prevention programme.

In 2005, Dr Dias (a paediatric neurosurgeon from New York State) described an apparently successful SBS prevention programme, introduced in December 1998, using a brief intervention targeted at the parents of newborns. This consisted of a conversation between a health professional and caregivers in hospital soon after birth, written materials, posters and the option to watch a DVD. It included a signed “commitment statement” confirming caregivers’ understanding that “violent shaking is harmful and potentially deadly to a baby”, and suggested ways to handle “persistent infant crying”. A similar Canadian programme focusing primarily on education about crying has recently been investigated in a large prospective trial, with mixed results.

The Ministry of Social Development funded the Auckland District Health Board (ADHB) to trial a SBS prevention programme from 1 January 2010 to 31 December 2011. The purpose of this study was to evaluate that trial.

Method

Setting
The ADHB manages approximately 8,000 live births per year. The demographics of that population are described in the results.
Programme structure

The basic structure (a perinatal conversation with supporting materials) was modelled on the Dias programme, with two key differences.

Firstly, early discharge meant that any New Zealand programme must often be delivered outside postnatal wards. Secondly, there was no commitment statement. In New York State, this also enrolled the child in prospective research linking programme delivery with cases of SBS. In New Zealand, this would require a separate process of informed consent to participate in research. Furthermore, a commitment statement was opposed at all stages of a 6-month consultative process and by almost all those consulted, including focus groups. Feedback was adamant that it would antagonise New Zealanders and be an insurmountable barrier to programme implementation. It was therefore not included.

Programme materials

Dias used a leaflet from the American Academy of Pediatrics and a DVD (Portrait of Promise; Midwest Children's Resource Center, St Paul, MN), both produced in 1995. We developed new materials, beginning with two pamphlets by an ADHB midwife, based on current literature and already in use (Never shake a baby and Coping with a crying baby). These were revised in a widely-consultative iterative process over a period of 6 months, including new and teen parents, Māori and Pasifika, interest groups and healthcare providers. This process identified six key messages (Figure 4).

Feedback consistently requested a local DVD, but in its absence Portrait of Promise was used. A bottle-feeding clip was removed to comply with the Baby Friendly Hospital Initiative (BFHI), a WHO strategy to promote breastfeeding, which is mandatory in New Zealand maternity services.

Programme delivery

After materials were developed, and before the trial began, coordinators trained staff on ‘a train-the-trainers’ model, supported by a clinical champion in each unit. Training was designed for delivery in 20 minutes (the minimum time available), but could be expanded to 60 minutes. Content was highly standardised, and clinical champions reinforced it in daily practice. Trainees received a comprehensive ‘educator’s guide’ and ongoing access to the clinical champion and coordinators for advice and support.

The programme, delivered by nurses or midwives, comprised: a) a face-to-face conversation with caregivers, following an 8-minute script, one-to-one or in a small group (less than 10); b) supporting materials—educational posters on the walls, pamphlets in English and the option (offered to all) to view Portrait of Promise.

The programme began in the neonatal unit (NICU) on June 1 2010, delivered before discharge. When disseminated (to community health, Starship inpatients and midwifery), the timing changed. Starship delivered it up to one year after birth. Community midwives introduced key messages in antenatal clinics, then followed up at postnatal home visits.

Evaluation

The evaluation objectives were:

1. Was the programme structure acceptable?
2. Were the materials appropriate?
3. Did caregivers retain the information?

The evaluation had two arms: a telephone survey of caregivers (approved by the Health and Disability Ethics Committee and conducted by two coordinators), and a survey of NICU nurses delivering the programme.

Participants

Programme delivery was recorded by a tick box in the clinical record and on a simple pro forma. Co-ordinators entered data into an Access database, including infant date of birth, prioritised ethnicity (mother’s if antenatal), date and location, deprivation index (NZDep, a scale based on residential address) and who participated (including relationship to the child and if they viewed the DVD).

Telephone survey of caregivers

Programme recipients were invited to participate in a 10-minute follow-up telephone survey 6 weeks later. Those interested were contacted by a co-ordinator for consent. The timing was chosen to correlate (for newborns) with the peak age of infant crying, a key trigger to shaking. This was similar to the Canadian programme, but
Figure 1: Questionnaire for telephone survey.

<table>
<thead>
<tr>
<th>SHAKEN BABY SYNDROME PREVENTION PROGRAMME FOLLOW-UP PHONE SURVEY</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROGRAMME NUMBER:</td>
</tr>
<tr>
<td>INTERPRETER USED</td>
</tr>
<tr>
<td>PARTICIPANT'S RELATIONSHIP TO THE BABY:</td>
</tr>
<tr>
<td>PARTICIPANT'S DATE OF BIRTH:</td>
</tr>
<tr>
<td>DO YOU REMEMBER BEING GIVEN PAMPHLETS ABOUT COPING WITH A CRYING BABY?</td>
</tr>
<tr>
<td>WHEN GIVEN THIS MATERIAL, DID YOU FEEL THAT...</td>
</tr>
<tr>
<td>You were treated with respect</td>
</tr>
<tr>
<td>The person knew what they were talking about</td>
</tr>
<tr>
<td>The conversation took place at a convenient time</td>
</tr>
<tr>
<td>The conversation took the right amount of time</td>
</tr>
<tr>
<td>The content of the conversation was right for you</td>
</tr>
<tr>
<td>The written materials were easy to understand</td>
</tr>
<tr>
<td>The DVD was helpful</td>
</tr>
<tr>
<td>WHAT DO YOU RECALL FROM THE INFORMATION YOU RECEIVED</td>
</tr>
<tr>
<td>Crying is how babies communicate</td>
</tr>
<tr>
<td>It's okay to walk away</td>
</tr>
<tr>
<td>Never, ever shake a baby</td>
</tr>
<tr>
<td>Never leave baby alone with anyone who you think may lose control</td>
</tr>
<tr>
<td>Share this information with everyone who is looking after your baby</td>
</tr>
<tr>
<td>If you ever think that your baby has been injured, seek medical help at once</td>
</tr>
<tr>
<td>Other (specify)</td>
</tr>
<tr>
<td>HAVE YOU SHARED THIS INFORMATION WITH ANYONE?</td>
</tr>
<tr>
<td>HAVE YOU MADE A PLAN FOR WHAT TO DO IF YOUR BABY CRIES AND YOU ARE NOT ABLE TO SOOTH BABY?</td>
</tr>
<tr>
<td>WAS THERE ANYTHING YOU FOUND ESPECIALLY HELPFUL?</td>
</tr>
<tr>
<td>WAS THERE ANYTHING YOU FOUND ESPECIALLY UNHELPFUL?</td>
</tr>
<tr>
<td>IS THERE ANYTHING YOU WOULD SUGGEST THAT WE COULD DO DIFFERENTLY?</td>
</tr>
<tr>
<td>ANY OTHER COMMENTS?</td>
</tr>
</tbody>
</table>
**EVALUATION OF THE ADHB SHAKEN BABY PREVENTION PROGRAMME**

**First, a couple of questions about yourself...**
1. How many years have you worked in NICU for?  
   - 0-3 years  
   - 4-6 years  
   - 7-10 years  
   - > 10 years
2. What is your job title?  
   - Senior Nurse  
   - Staff Nurse  
   - Bureau Nurse  
   - Other ___
3. Did you attend a training session in May 2010?  
   - Yes  
   - No
4. If you did NOT attend a training session, did you receive training any other way?  
   - Yes  
   - No
5. If you said ‘Yes’ to Q.4, please specify who you received the training from: __________________________

<table>
<thead>
<tr>
<th>Question</th>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The Shaken Baby Prevention Programme is relevant to my work place</td>
<td>1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>2. I have the knowledge and skills to educate caregivers about Shaken Baby Syndrome</td>
<td>1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>3. At present, I feel sufficiently supported by senior nursing staff to deliver the programme</td>
<td>1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>4. I feel comfortable discussing the content of the programme with caregivers</td>
<td>1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>5. All programme materials are readily available</td>
<td>1 2 3 4 5 6</td>
<td></td>
</tr>
<tr>
<td>6. The process of completing and returning the associated documentation (e.g. the programme record) is convenient</td>
<td>1 2 3 4 5 6</td>
<td></td>
</tr>
</tbody>
</table>

In your opinion, what are the challenges that limit effective programme delivery?

What are the benefits of the programme to your professional development?

Are there aspects of the programme you would like to change or improve?
earlier than in New York state, where caregivers were rung at 7 months, the median age of diagnosed SBS.10

Two cohorts were recruited using convenience sampling: Cohort One from NICU (June to October 2010), and Cohort Two from NICU, community midwifery and Starship (March to July 2011). All programme recipients were told about the survey and invited to take part.

Surveys were in English or by interpreter at a time of the participant’s choosing and the study bore the cost of the call. Participants were asked “Do you remember being given pamphlets about coping with a crying baby?” and their level of agreement to seven statements (Figure 1). They were then invited to recall, unprompted, key messages in their own words. The interviewer recorded these in the order remembered.

In Cohort One, those who watched the DVD were asked whether a local DVD should be produced. Cohort Two were not asked, because production had already begun. Unprompted, few in Cohort One recalled “Share this information”. To clarify whether this was forgotten, or merely less likely to be volunteered, we added a specific question for Cohort Two. Another question (“Have you made a plan for what to do if your baby cries and you are not able to soothe baby?”) was added because of anecdotal reports that this was a common strategy.

Four questions were designed to encourage broad feedback. All free text responses were written down by the interviewer, but not audio recorded for transcription. All answers were recorded on a survey form, then transferred to the database.

Survey of health professionals
In December 2010, nurses in NICU (the only unit where the programme had been fully implemented) were also invited to participate in a survey. (Figure 2) This was to evaluate staff response early enough to be able to modify the programme if necessary before wider dissemination.

Data analysis
Quantitative data were analysed using JMP 10.0 software (SAS Inc., US). Medians and interquartile ranges (IQR), or mean and standard deviation (SD) are provided as appropriate. Comparisons of survey participants to non-participants, and to all mothers of live births, were undertaken using the two sample t-test (for mother’s age) or Fisher’s exact test (for NZDep and ethnicity). The telephone surveys had nearly identical results and were combined. Qualitative data was analysed with thematic analysis. Briefly, this is a widely used qualitative method that reduces a dataset into key, recurring themes.10 The researcher takes an active role in the identification of themes. In this study, the dataset was read on multiple occasions and recurring ideas were highlighted by the researcher. Across multiple readings, the researcher gradually condensed them into the themes that best described patterns and trends in the dataset.

Results
Participants
Eighteen hundred programme sessions were recorded as delivered. A pro forma was completed in 1,524 (85%), with 2,316 participants. In these 1,524 sessions, only one caregiver was present in 901 (59%). The mother was present in 1,500 (98%). The father (or mother’s partner) was present in 522 (34%). There were at least 276 participants in recorded sessions with no pro forma: a minimum total of 2,592 participants.

Where location was recorded, 790/1800 (44%) occurred at home, 392 (22%) in NICU, 332 (18%) in Starship, 221 (12%) in antenatal clinics, 44 (2%) on postnatal wards and 21 (1%) in other locations. In 1,274 postnatal sessions where the child’s age was recorded, it ranged from 0 to 22 months (median 17 days, IQR 6–50 days).

Telephone survey of caregivers
Participants: Figure 3 depicts the numbers of programme recipients and survey participants in each cohort. The survey occurred 4–13 weeks after programme delivery (median 6 weeks, IQR 5 to 8). Participation was recorded against the child’s NHI on the database so no-one was surveyed twice.

Difficulties in obtaining the return of written consent forms for programme recipients in the community were anticipated but could not be overcome.

Comparison of demographics
Table 1 compares the mothers of all live births from 1 June 2010 to 31 December 2011, programme recipients and survey participants.
Figure 3: Programme recipients and survey participants.

Table 1: Comparison of demographics.

<table>
<thead>
<tr>
<th></th>
<th>Mothers of live births N=11,943</th>
<th>Programme sessions N=1,800</th>
<th>Survey participants N=150</th>
<th>Survey compared to programme sessions</th>
<th>Survey compared to mothers of live births</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age of mother (years)</td>
<td>14–55 Mean 31, SD 5.7</td>
<td>14–45† Mean 29, SD 6.3</td>
<td>14–44† Mean 29, SD 6.6</td>
<td>t=0.72 p=0.5</td>
<td>t=15.05 p=0.001</td>
</tr>
<tr>
<td>NZ Dep 1–3*</td>
<td>3,388 (29%)</td>
<td>286 (16%)</td>
<td>39 (26%)</td>
<td>p=0.002</td>
<td>p=0.14</td>
</tr>
<tr>
<td>NZ Dep 4–7*</td>
<td>4,634 (39%)</td>
<td>596 (33%)</td>
<td>51 (34%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NZ Dep 8–10*</td>
<td>3,847 (32%)</td>
<td>903 (51%)</td>
<td>60 (40%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>European</td>
<td>5,695 (48%)</td>
<td>583 (32%)‡</td>
<td>81 (54%)</td>
<td>p&lt;0.001</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td>Pasifika</td>
<td>1,626 (14%)</td>
<td>479 (27%)‡</td>
<td>17 (11%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td>3,275 (27%)</td>
<td>377 (21%)‡</td>
<td>29 (19%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Māori</td>
<td>930 (8%)</td>
<td>278 (15%)**</td>
<td>21 (14%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>417 (3%)</td>
<td>79 (4%)**</td>
<td>2 (1%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* NZDep available for 11,869 live births and 1,785 programme sessions. 1 = least deprived, 10 = most deprived
† Age recorded for 650 mothers in programme sessions and 133 in survey
‡ Ethnicity recorded for 1,796 programme sessions
Table 2: Caregiver responses to statements about the programme.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>No response</th>
<th>Mean score out of 5 (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>You were treated with respect.</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>58</td>
<td>83</td>
<td>5</td>
<td>4.5 (0.6)</td>
</tr>
<tr>
<td>The person knew what they were talking about.</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>54</td>
<td>88</td>
<td>5</td>
<td>4.6 (0.5)</td>
</tr>
<tr>
<td>The conversation took place at a convenient time.</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>62</td>
<td>70</td>
<td>9</td>
<td>4.4 (0.7)</td>
</tr>
<tr>
<td>The content of the conversation took the right amount of time.</td>
<td>0</td>
<td>2</td>
<td>5</td>
<td>67</td>
<td>69</td>
<td>7</td>
<td>4.4 (0.6)</td>
</tr>
<tr>
<td>The content of the conversation was right for you.</td>
<td>0</td>
<td>6</td>
<td>11</td>
<td>63</td>
<td>62</td>
<td>8</td>
<td>4.3 (0.8)</td>
</tr>
<tr>
<td>The written materials were easy to understand</td>
<td>0</td>
<td>2</td>
<td>5</td>
<td>43</td>
<td>92</td>
<td>8</td>
<td>4.6 (0.6)</td>
</tr>
<tr>
<td>The DVD was helpful</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>32</td>
<td>58</td>
<td>52*</td>
<td>4.5 (0.7)</td>
</tr>
</tbody>
</table>

* Refers to those who did not watch the DVD

Figure 4: Messages recalled and the sequence in which they were recalled.
Survey participants tended to come from less deprived areas (NZDep 1–3) than programme recipients, but were similar in this respect to the mothers of all live births. Survey participants were marginally younger than the mothers of all live births and more often European compared to both programme recipients and the mothers of all live births (Table 1).

Recollection of key messages
All but one (149/150, 99%) remembered the pamphlets. Responses to the statements are shown in Table 2.

Fifty-two of 150 (35%) did not watch Portrait of Promise. We did not ask why, and no free comment was made. However, anecdotal reports were that many caregivers chose not to. Most who did found it helpful, but in Cohort One, 29/32 who viewed it still wanted a local DVD.

Asked what they recalled, 128/150(85%) volunteered at least one key message, 65/150 (43%) two messages, 22/150 (15%) three and 2/150 (1%) four (Figure 4). Only 15/150 (10%) volunteered “Share this information with everyone”, but when Cohort Two was asked whether they had shared the information, 60/96 (63%) had. Making a plan for what to do if frustrated was in the pamphlet, but not a key message. However, 88/96 in Cohort Two (92%) had made such a plan.

Qualitative analysis of caregiver responses
Theme One: The programme was a useful reminder. Many already knew about the risks of shaking a baby, but valued a refresher. “Good reminder to tell others of the danger”.

Theme Two: The content was highly relevant. “Grateful for the opportunity, using the information”; “The numbers for the helplines for people that don’t have family”; “Have phoned Plunket line twice”; “Now getting support”; “Used the walk away technique”; “Baby is safe”. The DVD was particularly memorable “Seeing physically what could go wrong was shocking and so that was helpful, I think about it more”; “How they demonstrated... so everyone can understand”. Others appreciated the manner of programme delivery: “Nurse made it very real—talked about a case she had known”.

Theme Three: Portrait of Promise was ineffective due to its style. “Use local people as we can associate better with them”; “Overdramatised, exaggerating due to being American”; “Good to share stories from New Zealand”.

Survey of NICU nurses
Thirty-one of 114 nurses (27%) completed the survey. Thirteen (42%) had worked there for over 10 years and 10 (32%) for 4–6 years. Twenty (65%) were staff nurses, five (16%) senior nurses and six (19%) “other” (bureau or enrolled nurses).

Twenty-four (77%) had attended training. Seven had not—of whom four (13%) were trained by a champion, and three (10%) received no training.

Mean responses to the six statements are shown in Table 3.

Qualitative analysis of nurse responses
One theme was time and workload: “Time! Another task to do in the day.” “Time constraints, suitable timing when parents not feeding baby so have their undivided attention”. Others mentioned environment: “Level Two room, with four babies, parents and visitors and not time alone with parents.”

Another theme was professional development: “Increases my skills in teaching parents”; “Building rapport with parents”; “A new focus, widening scope for discussion—a community focus rather than just hospital focus”; “It adds more knowledge on how I can care for the babies as a whole not just their illness.”

Themes for improving the programme were a local DVD and alternative settings for programme delivery (ante-natal classes, training for midwifery and nursing students and parenting workshops).

One pamphlet or two?
Throughout the trial, pamphlets on Coping with a crying baby disappeared much more quickly than Never shake a baby. In consultation with staff and caregivers after 2011, both pamphlets were simplified into one called Power to Protect: Coping with a Crying Baby.20

Discussion
The first objective was to determine whether the structure of this programme (a perinatal conversation with supporting materials) was acceptable to caregivers and health providers.
Most caregivers surveyed responded positively to the manner, timing, duration and content of the programme. Similarly, providers reported that it was relevant and they felt competent to deliver it. Although community recipients were not well represented in our survey, and providers outside NICU were not formally surveyed, both constituencies participated in focus groups and there was close communication throughout the trial between co-orderators, champions and providers. A wide range of health professionals, including community midwives, adopted the programme enthusiastically and gave similarly positive feedback.

However, there were barriers to implementation. NICU nurses described constraints of time and paperwork, evidenced by the fact that a pro forma was not completed for 15% of programme sessions. After the trial, the pro forma was discontinued, both from lack of resource to maintain a database and from concern that it hindered staff engagement. We now use ‘tick boxes’ in clinical records audited for compliance, similar to the approach for auditing family violence screening.11

Our second objective was to determine whether programme materials were appropriate. Survey participants found the pamphlets easy to understand. There were no comments about the posters, so their value is unknown. Thirty-five percent of those surveyed did not watch the DVD. For some, this may have been for technical reasons, or because it was not offered (in the Dias study, less than 2/3 of hospitals regularly showed the DVD).10 For most, it was by choice, perhaps reflecting reluctance to watch material anticipated to be upsetting. Those who did watch Portrait of Promise generally found it helpful, but inappropriate for our population, so a new DVD, produced in partnership with tangata whenua, was launched in December 2011.21

Our third objective was to evaluate whether caregivers retained the information. Unprompted, most could only recall one or two messages, but these were arguably the most important (“It’s OK to walk away” and “Never, ever shake a baby”). Many told others, even though they did not recall that as a key message. Many made a plan, though that was not a key message. Future research could explore whether further programme modification would aid recall. It is interesting that an evident preference for the Coping with a crying baby pamphlet was not expressed in surveys. In-depth qualitative research may be required to capture the full range of responses to programme language.

Limitations
Dias’ is the only programme shown to reduce the incidence of SBS, yet our programme differed in two respects. Firstly, it was mostly delivered outside hospital. This was unavoidable and there is no obvious reason why this would reduce efficacy. Secondly, there was no commitment statement. Dias hypothesised that this “may be a very important (perhaps even the most important) component of the program’s success”,10 but provided no specific evidence for this.23 It is therefore unknown what (if any) effect the absence of a commitment statement has on efficacy.
The most serious methodological limitation was that our formal surveys had small samples and were not fully representative. In particular, the low community response rate raises the possibility of a non-response bias, which may affect the validity of our findings. The caregiver survey relied on telephone calls, with all their limitations, and the 10-minute time-frame seriously constrained the depth of qualitative data. Nevertheless, the programme evolved through a process of wide consultation and formal and informal feedback was consistent over time (two cohorts 9 months apart), location (hospital or community) and role (caregivers and a variety of health professionals). To address the problem with written consent forms, future evaluations could consider reducing the burden on community participants by collecting a recorded oral statement of consent, and sending a record of this to participants.

Most importantly, this study cannot answer the central questions (notoriously difficult to study): does the programme change behaviour or reduce the incidence of SBS? Although some authors describe an effect on caregiver behaviour, this is based on self-report, not observation, and a reduction in incidence has not been shown outside New York State. Our trial, involving only 15% of births in the ADHB, had no power to show an effect on incidence. In addition, the absence of a database will hinder ongoing thorough evaluation of the programme and its efficacy. The ‘gold standard’ trial (a prospective RCT) is probably impossible to conduct for a condition of low prevalence in our small and mobile population, and may be difficult to justify for a programme that is intrinsically low-risk.

Conclusion

This study has shown that a SBS Prevention Programme is received positively by New Zealand parents, caregivers and health professionals and can be introduced into a New Zealand DHB. Further research is needed to evaluate content, mode of delivery and effectiveness. In particular, this would include face-to-face qualitative research with community recipients and providers.
Competing interests:
Aqeela Mowjood was awarded a student research scholarship by the Child Injury Prevention Foundation of New Zealand to undertake the mid term evaluation of the shaken baby prevention programme.

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URL:

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