

“IT BURNS LIKE FIRE”

Baby Burns Awareness Training

An Evaluation of the training
programme developed by
Whoops! Child Safety Project
and
Gateshead Primary Care Trust

Report produced by Gail Errington
February 2006

The evaluation was conducted by Gail Errington on behalf of the WHOOPS! Child Safety Project.

Thanks are due to Carole Hewison, Whoops! Child Safety Centre Manager, and her team, Ashley, Christine and Mark who have made working on this project such a pleasure. Also to Kathleen Athey who assisted in note-taking and transcription at the discussion group sessions.

Many thanks to all the staff (in particular to Elaine Dobson who was involved in the recruitment and evaluation for the staff training sessions) and to the parents who participated.

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An evaluation of the training programme developed by Whoops! Child Safety Project and Gateshead Primary Care Trust

1. **EXECUTIVE SUMMARY**

Background

In February 2005, Whoops! Child Safety Project, in collaboration with Gateshead Primary Care Trust, ran three half-day workshops focusing on the prevention and/or reduction of injuries to children caused by burns and scalds.

The premise of the Baby Burns Programme was to develop an educational programme providing training for health professionals which enabled them to cascade knowledge and skills to parents/carers. The content and training methods employed evolved from previous work conducted in the community by the Whoops! Child Safety Project.

Twenty-seven health professionals took part in the programme. Twenty-one participated in follow-up discussion groups/telephone interviews eleven months later. Of these 21 professionals, 18 reported that they had delivered training to parents/carers on burn/scald prevention. Method of delivery was divided with 10 having run group sessions, 4 conducting individual training in the home and 4 having used both. A total of 126 parent/carer evaluation forms were received, half of these from first-time parents.

Impact of training

Health professionals rated the content and quality of the training highly and parents indicated that they enjoyed the session. The value of the training materials in delivering the key messages was highlighted by both parents and professionals. Those tools with a high visual impact, photographs depicting injury case studies and the “Baby Burns” doll, rated particularly well with both groups. Participants reported increased awareness of burn/scald safety following the training. In the case of the health professionals, several had retained this heightened state of awareness almost one year after the initial training.

The programme also appears to have had an impact on reported behaviour (for example, encouraging the installation of smoke detectors) amongst both parents and professionals. It was encouraging to see that those areas which parents/carers identified as “changes they would make immediately” closely related to the key messages prioritised by health professionals. Specifically, these were checking/installing smoke detectors, safer practice around hot drinks, chemical/electrical safety and devising a fire escape plan.

Parents/carers appear to be very receptive to the topic of safety, with several expressing interest in first aid training, further burn/scald safety and home/general safety training.

Conclusions

The Baby Burns programme has proven to be an effective way of raising awareness of burn/scald injuries to young children amongst health professionals and parents. It may also prove effective in influencing safer behaviours. The programme offers an interactive, enjoyable and innovative means of addressing burn/scald safety.

Recommendations

- That the programme be extended to provide training for health professionals across the Borough of Gateshead, thereby offering burn/scald education to all client groups.
 - That the content/delivery be modified for use with other target groups e.g. ante-natal classes, secondary school children
 - That the model used in development and delivery of the Baby Burns programme be adapted for use with other safety topics e.g. choking, drowning
- and
- That the content of the training material and supporting resources be reviewed and updated, taking into account the findings of the evaluation of the pilot programme.

2. INTRODUCTION

The “Baby Burns Programme”

In February 2005, Whoops! Child Safety Project, in collaboration with Gateshead Primary Care Trust (PCT), ran three half-day workshops focusing on the prevention and/or reduction of injuries to children caused by burns and scalds.

Members of staff from Gateshead PCT who volunteered to attend one of the workshops were then asked to cascade this information to parents/carers of young children. A resource pack (contents detailed below) was provided to assist with this.

This report details the evaluation of the “Baby Burns Programme” with particular emphasis on process (how the programme was developed, implemented and received) and some impact (knowledge and reported behaviour change) measures.

3. THE INTERVENTION

The workshops were designed and delivered by Carole Hewison, Manager of the Whoops! Child Safety Project and Elaine Dobson, Health Visitor.

Staff from Gateshead Primary Care Trust (health visitors, nursery nurses, midwives) were invited to attend one of the workshops. Each half-day training session covered the following:

Introduction to the work of Whoops! Child Safety Project

Contextual information – why child accidents are important, the scale of the problem

Risk factors for burn/scald injury

Approaches to tackling the problem

Case studies based on real-life injuries to children

Immediate care of burns/scalds – first aid advice

Interactive exercise using “Front Room Fire” video to illustrate how quickly fire takes hold

Video produced by Staffordshire Fire and Rescue Service depicting fatal house fire.

Following the training, each participant was asked to deliver baby burns education based on the content of the session to fifteen parents/carers of young children. To assist in this, a resource pack was provided containing:

A4 training/information pack

Laminated posters (2) of the “Burns Baby” (a modified resuscitation doll on which the graphic effects of burn/scald injury had been recreated)

Baby Burns Doll (one per staff base)

Home safety checklists (x 20)

House fire questionnaires (x 20)

House Fire video (one per staff base)

Parent/carer hazard sheets and questionnaires for use in the evaluation (x 20)

Delivery of sessions to parents/carers, either in their own home or within a group setting was at the discretion of each health professional.

4. THE EVALUATION

The evaluation comprised:

One-to-one interviews with trainers who developed and delivered the staff training sessions.

Analysis of the written questionnaires completed by health professionals immediately prior to and after receiving the initial training session.

Focus group discussions with health professionals eleven months after the initial training took place.

Telephone interviews with health professionals unable to attend the focus groups.

Analysis of the written questionnaires completed by/on behalf of parents/carers immediately prior to and after receiving “Baby Burns” education.

A summary of the effectiveness of the Baby Burns training programme as a means of delivering burn/scald prevention education to parents/carers of young children.

5. METHODOLOGY OF EVALUATION

5.1 Interviews with staff involved in design, recruitment and delivery of the training programme

Individual interviews were conducted with the manager of the Whoops! Child Safety Project and with the health visitor taking the lead on this programme on behalf of Gateshead Primary Care Trust. These sessions explored the development of the training programme, recruitment, implementation and evaluation.

Interviews took place at the Whoops! Child Safety Project.

A full copy of the interview schedule can be found at Appendix A.

5.2 Views of health professionals who took part in the “Baby Burns” programme

Immediately prior to the initial training session, health professionals were required to complete a pictorial exercise in which they were given one minute to identify five hazards in a living room and a kitchen setting. This exercise was repeated at the end of the half-day training. Health professionals were also asked to complete a written questionnaire to evaluate the impact of training and to assess how the information received might be used in the future.

A copy of the staff evaluation form can be found at Appendix B.

Eleven months after the initial staff training sessions took place, three discussion groups were scheduled for those who had taken part. The aim of the groups was to give staff an opportunity to share experiences of offering training to parents and to reflect on the process and impact of the programme as a means of providing education on burns/scalds prevention. Discussion sessions took place at Whoops! Child Safety Project and were facilitated by Gail Errington. Notes of the discussion were taken by Kathleen Athey.

A copy of the schedule for the discussion group can be found at Appendix C.

Individual telephone interviews were held with those staff who were unable to attend the group discussions. The schedule for the interviews was adapted from that used in the group discussions. All interviews were conducted by Gail Errington.

5.3 Views of parents/carers who took part in the “Baby Burns” programme

Immediately prior to receiving “Baby Burns” education, parents/carers were asked to complete a pictorial exercise in which they were given one minute to identify five hazards in a living room and a kitchen setting. This exercise was repeated at the end of the session. Parents/carers were also asked to complete a written questionnaire to evaluate the impact of the training. Health professionals were asked to keep a register of all those who participated in the training. This recorded various personal details

and was intended to be linked to the parent/carer questionnaires in such a way that individual anonymity would be protected.

Information from the parent/carer questionnaires and from the training registers was entered into an Access database. This was interrogated electronically, with additional analysis conducted to obtain qualitative results from free-text responses.

A copy of the parent/carer evaluation form can be found at Appendix D.

A copy of the training register can be found at Appendix E.

6. RESULTS

6.1 Views of staff involved in design, recruitment and delivery of the training programme

Two individual interviews took place of 10 minutes and 30 minutes respectively. A summary of the responses is presented below, with full transcripts available from the Whoops! Child Safety Project.

Background and development of the training course

Whoops! Child Safety Project had a history of providing educational safety training to both professional and community groups. Previous work included cardiopulmonary resuscitation (CPR) training and ad-hoc sessions on accident prevention. It was felt that the approaches used could be combined in order to focus on a specific topic area. Burns and scald training was chosen with the concept of cascading the training from professionals to parents in order to build capacity within the field.

Funding (£10,000) was obtained from Health Action Zone (one of only three projects funded within Gateshead). A further £2,500 was provided by the Centre for Enabling Health in order to conduct the evaluation.

Recruitment

Health professionals within Gateshead PCT were approached to ascertain their interest in participating in the programme. Presentations were made to professional group meetings of health visitors, staff nurses and nursery nurses. The proposed training met with an enthusiastic response, in particular from health visitors, and was seen as an appropriate way of assisting in delivering current safety work with parents/carers of young children.

Course content

The content of the course was based upon three awareness-raising topics which Whoops! had used previously in the community – home safety, baby burns and child life saving. A combination of real-life case studies, pictorial resources and modified first-aid dolls depicting the effect of burn/scald injury (the “Baby Burns” doll) was used within the session to illuminate the statistics highlighting the scale of the problem amongst babies and young children.

Feedback on initial training session

Accepting that both interviewees were closely involved with the course and therefore may be subject to “edited” feedback from colleagues, both indicated that the training had been well received. No negative comments had been relayed and the initial evaluation conducted with health professionals was very positive.

Accompanying resources

Distribution of resources to health professionals following the training went well. One “Baby Burns” doll per base was taken back by participants, individual resource packs were also provided.

Suggestions for improving resources were:

- i) Provision of one Baby Burns doll for each health professional for their personal use with parents/carers as appropriate.
- ii) Means of documenting content of parental training session within health visiting/child health record. This would be of value for families moving between areas with different health care providers, giving a summary of topics covered for the notice of health professionals concerned.
- iii) Quality of fire video could be improved.

Evaluating the training

Evaluation methods were agreed in conjunction between the training course providers and the agency commissioned to undertake analysis of the results. Unfortunately, this agency was unable to fulfil the obligations and an independent researcher was brought in to complete the evaluation. The tools selected were intentionally simple to complete and based upon methods used previously with parents in the community.

The response received from both parents and health professionals indicated that there were few problems in completing the evaluation forms.

It was acknowledged that within the scale of the programme, only short-term impact measures had been included

Feedback from participants (one year on)

In the 11 months since initial training took place the feedback from participants (both health professionals and parents/carers) has been positive. Good links have been developed with the professionals concerned. Some of the clinics/bases have been using the material provided as a visual display to stimulate discussion amongst parents.

Suggestions for improvement

- i) Review resources, update and select most appropriate to retain.
- ii) Include burns/scald training within ante-natal sessions for first-time parents
- iii) Run the courses right across the borough
- iv) Consider expanding topic areas – e.g. home safety, drowning.
- v) Lack of support from original evaluators – ensure this is on board from start.

6.2 Views of health professionals who took part in the “Baby Burns” programme

Twenty-seven health professionals representing all localities within the metropolitan Borough of Gateshead attended one of the three initial training sessions which took place in February 2005.

Written questionnaires completed by health professionals

Twenty-five completed evaluation forms were received following the training (92.6% response rate). Original forms were not available at the time of the external evaluation therefore the following overview of results from the written questionnaire is based on those collated by Whoops! and published within an interim progress report (C. Hewison, “*It Burns Like Fire*” *Baby Burns Awareness Training; May 2005*).

Table 1

<i>What did you find most memorable from the information you received today?</i>		
Response	Number	Percentage
Videos and visual aids (photographs)	14	56 %
Speed with which fire takes hold	4	16 %
Effect of burn/scald injury	3	12 %
Statistics – extent of the problem	2	8 %
Being aware of your surroundings	1	4 %
All of it	1	4 %
Totals	25	100 %

Table 2

<i>What made the greatest impact to you personally from this information?</i>		
Response	Number	Percentage
Video	9	36 %
Fire escape plan	4	16 %
Up-to-date knowledge/prevention	3	12 %
Review own house/behaviour	2	8 %
Don't leave electrical equipment on when out/in bed	2	8 %
Speed at which accidents/injury can happen	2	8 %
Effect of injury on child and family	1	4 %
Photographs	1	4 %
All of it	1	4 %
Totals	25	100 %

Table 3

<i>How will the information relating to burns and scalds prevention enhance your professional role in the community?</i>		
Response	Number	Percentage
Raise awareness with parents/ public health role	19	76 %
Raise awareness and hopefully change behaviours	5	20 %
Use of actual accidents very good	1	4 %
Totals	25	100 %

Table 4

<i>Was there anything you felt should have been included in this session?</i>		
Response	Number	Percentage
No	20	80 %
Dangers in gardens/garages	1	4 %
No response (left blank)	4	16 %
Totals	25	100 %

Table 5

<i>Can you give one example of how you will utilise this information in your professional role?</i>		
Response	Number	Percentage
Deliver to parent/carer groups	9	36 %
Deliver to groups or one-to-one with parents/carers	9	36 %
Deliver in one-to-one sessions	4	16 %
Raise awareness with all contacts	2	8 %
At follow-up visits	1	4 %
Totals	25	100 %

Table 6

<i>Was the quality of the information given sufficient to develop your knowledge, understanding and professional development in this area?</i>		
Response	Number	Percentage
Yes	25	100 %
Totals	25	100 %

Table 7

<i>Participants were asked to mark the categories given out of ten</i>						
	8/10		9/10		10/10	
Mark awarded to:	No.	%	No.	%	No.	%
The information received	1	4%	5	20%	19	76%
The resource pack available	2	8 %	3	12 %	20	80 %
The evaluation process (one missing value)	1	4 %	4	16 %	19	76 %

Focus group discussions/telephone interviews

Ten months after the initial training, individual invitations to attend one of three focus group sessions were sent to each of the twenty-seven health professionals who had participated. A response was received from twelve individuals as a result of which two discussion groups took place, with four and five health professionals attending respectively.

Letters were sent to those health professionals who were unable to attend the group discussions and individual contact was made to agree a mutually convenient date to conduct a telephone interview which addressed the same issues. A minimum of three attempts were made to contact staff by telephone in order to arrange a date/time for interview.

Response rate

Twenty-one of the twenty-seven health professionals participated in follow-up discussion groups/interviews (response rate 77.8 %).

Staff from all but one of the 14 bases/clinics throughout the borough which had participated in the training were represented in the feedback (92.9% response rate by base).

5 staff had moved base in the course of the 11 months between initial training and follow-up evaluation.

1 member of staff had left the area and was no longer contactable.

Transcripts of the discussion groups and telephone interviews are available from Whoops! Child Safety Project. An overview of the main themes is presented below.

Participants

Nine health professionals participated in two focus group discussions, one lasting 45 minutes, the other 65 minutes. Both groups were facilitated by Gail Errington, notes were taken by Kathleen Athey. Eleven staff participated in telephone interviews lasting between 5 and 25 minutes. One member of staff was interviewed face-to-face.

View on initial training – 11 months on

Having had time to reflect on the initial training delivered by Whoops!, and in the majority of cases having had an opportunity to cascade this to parents/carers, feedback from health professionals as to the value of the original session remained positive.

“I enjoyed it – really good”

“Very thorough – excellent”

One suggestion for improvement involved developing a summary handout which health professionals could use to remind themselves of the key facts inbetween delivering training sessions.

Provision of supporting resources

These were generally received on time and in good condition. Some temporary problems with accessing a copy of the house fire video were encountered, but these were overcome within a relatively short time. There were mixed views as to the value of the video, some felt that it wasn't an essential component of the training, others saw the value in having a visual resource for families speaking little or no English. Professional judgements were made on the suitability of the video according to family circumstances and most parents were pre-warned of the content before watching.

The photographs provided within the resource pack were considered to be of value in bringing the topic to life:

“...this is a real situation that could happen – parents take more notice”

“makes it more real, not like someone just preaching”

Views on the “Baby Burns” doll were also mixed. One professional reported that she didn't use the doll on home visits as it wasn't felt to be so appropriate, whilst another countered this saying that the horrific nature of the injuries highlighted the importance of the message to parents.

The house fire safety checklist was considered a useful resource for parents to take home and use after attending a group session.

Impact of training on health professionals themselves

It was generally agreed that the initial Whoops! training session had raised awareness of the risk of burns and scalds amongst health professionals. Several participants also reported changes to their own behaviour as a consequence:

“...checked smoke alarms (at home) and installed a new one”

“since having my own baby I'm much more careful around hot drinks”

“..don't leave the dishwasher or tumble dryer on when I go out”

Several of the health professionals reported that they had conducted the Fire Escape Plan at home after the training session, and some indicated how difficult they had found this to do.

Two examples were also cited where a change in behaviour of the professional had resulted in a similar change amongst those around them. In one case, the mums participating in a training session had taken it in turns to drink hot drinks in an area away from their children. In the other, a health professional had intervened in a non-

work situation where another adult was carrying a hot drink and a child at the same time.

Only one health professional reported that she had been called upon to use her first aid skills since the training, in assessing a burn to a baby caused by a hot radiator.

Delivery of training to parents/carers

Eighteen of the twenty-seven health professionals (66.7%) participating in the programme reported that they had completed burns/scalds training with parents/carers. These staff represented twelve of the initial fourteen bases/clinics which participated in the programme. Of the three staff who reported that training had not taken place, two were planning to run sessions over the coming weeks and in the third case, no training had been run by the health professional since this need was currently being met within a rolling programme delivered by Whoops! staff.

Some of the health professionals indicated that they would have liked to have carried out more training than they had. The main obstacle to this seemed to be lack of time, particularly for the home visits.

“I might have used it more individually but there was too much information to go into depth alongside the normal visit”

One professional reported that fewer parents had attended a group session than had been anticipated; another reported that lack of space prohibited running further group sessions.

Ten professionals had run group training sessions, four had conducted individual (one-to-one) sessions with parents in their own home and four had used both methods of delivery.

i) Running group sessions

The favoured approach appeared to be linking with an established group and including burn/scald safety as one of a programme of sessions.

“(I linked into) baby days, baby social groups and baby massage, using (existing) group sessions only”

In a small number of cases, groups of parents had been brought together specifically to address burn/scald safety. A number of health professionals had conducted training groups in conjunction with a colleague (e.g. staff nurse and health visitor, health visitor and nursery nurse). The benefits of training in a group setting were considered to be reaching greater numbers and the opportunity for parents/carers to interact and share experiences.

“One mum has scars from a burn – she was very much in favour of the pictures (being used)”

One disadvantage to working with groups was the disruption caused by having several young children present. The nature of many existing groups is not to offer

crèche facilities so that parents and children can interact. As one professional highlighted, in these circumstances,

“... you just have to hope that they’ll take some (information) away”

In sessions where babies were very young (12 weeks), combining the safety information with the regular weaning session seemed to work well.

The length of group sessions ranged enormously, from 20-30 minutes to almost two hours. Similarly, number of participants varied and was often unpredictable, although some health professionals reported that participants brought along their relatives, thereby increasing the usual numbers.

ii) Individual training (one-to-one)

One-to-one sessions were in some cases linked with routine home visits – at 12 weeks to discuss weaning, or as part of the 2-year developmental check. Two health professionals reported that they had chosen this method with the specific needs of their client group in mind (for one case a minority ethnic group who do not access all routine health services, for the other a geographically isolated area where little work has been done previously on safety).

One health professional reported that a home visit had been initiated to one family where a child had recently suffered an accidental injury.

The home was considered to be an appropriate setting for delivering safety training, particularly when the child was very young and there were relatively few distractions. Parents, in particular first-time mums, were found to be receptive to the information.

“Easier to keep attention in (the) home, smaller setting, no place to hide!”

Parent Evaluation

Most professionals had little problem in getting parents to complete the evaluation form. One professional found that completing the evaluation proved difficult when mum was feeding the baby. Two professionals had encountered problems when working with parents who spoke/understood little English.

“I had one problem (in a group) with someone with no English. I didn’t know this beforehand and found it very difficult. A nursery nurse sat and tried to explain everything to her on a one-to-one basis but it didn’t work; (this) should have been done separately”

One health professional reported that she had been confused by the coding system used for the questionnaires.

As part of the evaluation, health professionals were asked to keep a record of all parents/carers receiving training. Concern was voiced by several health professionals over the sensitive nature of some of the information requested (e.g. marital status, income).

“Things like income status, marital status and age, I’m not comfortable with (asking) this. It’s obviously off-putting for some people”

One way of getting round this had been to ask parents/carers to complete only those sections on the form which they felt comfortable with. Several health professionals questioned why the additional items of information were required.

“They all come from the same postal code area so there seemed little point in doing this. There needed to be more explanation”

One professional suggested that including this information in the existing record system used by health visitors would have avoided duplicating the workload.

Key messages delivered within sessions

The focus of the parent/carer sessions varied between professionals. Several addressed the issue of hot drinks, linking this with the child’s age and stage of development. The photographs and case studies were a popular way of getting the message across, as was the use of anecdotes and personal experience. The “Baby Burns” doll was considered to be particularly useful in reinforcing the potential affects of injury.

“The most useful thing was to use case scenarios; it generates discussion that gets on to own personal experience. Using the doll has a major impact because it’s real and shows the injury”

“Pictures of the dad with a baby showed that babies don’t learn first time from experiences”

Some health professionals indicated that parents were shocked by the pictures and the graphic nature of the injuries to the “Baby burns” doll, but when used with sensitivity, the general feeling seemed to be that these were powerful tools with which to reinforce the safety message.

Linking injury risk with child development was also used to deliver information on chemical burns (from household substances), electrical safety and to discourage the use of babywalkers.

The installation and maintenance of smoke alarms was addressed by several professionals. Within Gateshead there exists a scheme operated by the Fire Service in which a fire officer will conduct a home visit, supply and fit smoke detectors. Some families had been referred into this by the health professionals following the parent/carer training session.

A number of health professionals commented that parents had been very receptive to the information.

“Feedback from the parents – the good response. They generally don’t comment but this obviously made them think”

“The whole thing – it’s quite easy to do, even though I don’t like doing groups. It makes them interact – they’ve all got a story. It keeps flowing, whereas with other things you can see them switching off”

The general consensus amongst health professionals was that they adapted the nature of the session and the relative importance placed on the key messages to meet the needs of their client group. The statistics included in the resource pack were highlighted by some professionals as being “too dry” and not always used. One professional raised the issue of needing to update the statistics as time went on.

Suggestions for improving/building on the sessions

The following suggestions were made:

- Provision of additional information corresponding to seasonal topics
- Provision of handouts for parents to take away from group sessions
- Adapting the method to address other topics
- Delivering burn/scald safety sessions to parents-to-be ante-natally
- Linkage with children’s cognitive development
- Exploring child development and risk of injury
- Make the parent/carer register more user-friendly
- Incorporate the delivery of the training into the child health record so that documentation reflects the information which parent/carer has received.
- Possibility of extending target groups to include older school-children

Other issues raised by the sessions

- i) Identification of further training needs for client group

During the sessions, some parents had shown an interest in learning more about first aid skills. A number of parents had gone on to receive training on CPR (cardio-pulmonary resuscitation) and or choking delivered by the staff at Whoops! or by health visitors.

- ii) Misconceptions/inappropriate action related to burn/scald injury

These included:

- Uncertainty about the length of time a scald/burn should be held under cold running water
- The size of burn/scald injury which requires medical attention for a small child
- The ability of hot liquids to cause injury to young children up to 30 minutes after liquid has boiled
- Application of butter, or a cream such as Germolene to a burn/scald
- Use of homeopathic remedies in immediate treatment of burn/scald
- That young children are not able to learn from their mistakes

Impact of training on parents

Anecdotally, several health professionals had heard of parents/carers who had received the training passing on information to partners/friends. One health professional reported that she knew of a parent who had purchased a first aid kit following the training, another had delivered training to grandparents who had gone

out to buy a smoke detector following the session. Several families were referred on to the Fire Service scheme described earlier.

Value of the programme in educating parents about burns/scalds

Health professionals were asked about their views on this method of educating parents about the risks of burns/scald injuries. The response was very positive.

“Brilliant – everything they (Whoops!) do is good. The more information the better”

“Absolutely fabulous”

“Excellent way of educating them. People need something visual to see disability that can result from burns/scalds”

One health professional, whilst appreciating the value of the training, expressed some concerns that families at greatest risk may be missed by group sessions. Meeting the needs of these families through one-to-one training in the home would have considerable time implications.

One health professional expressed interest in the impact of the programme on casualty figures.

6.3 Obtaining views of parents/carers who took part in the “Baby Burns” programme

Response rate

Parent/carer evaluation forms were received from eleven health professionals (40.7% of total trained), representing nine of the fourteen bases/clinics.

A total of 126 parent/carer evaluation forms were returned. Of these, 114 (90.5%) were completed. In the remaining 12 (9.5%), some element of the information was incomplete. This breaks down as follows:

8 (6.3%)	hazard pictures incomplete
2 (1.6%)	written section incomplete
2 (1.6%)	pictures and written section incomplete

Profile of respondents

Three health professionals did not return the training register resulting in missing personal details for 28 parents/carers. In a further 11 cases, it was not possible to link the parent questionnaire with the register since no unique code had been assigned to each individual.

From the 126 parent responses, linkage with personal details was possible in 87 (69%) of cases.

The following bar charts show a profile of respondents by Age (Chart 1), Number of children (Chart 2), Age of youngest child (Chart 3), Marital status (Chart 4) and Income status (Chart 5). Full numerical values for each chart are given at Appendix F. Total number of respondents, n = 126.

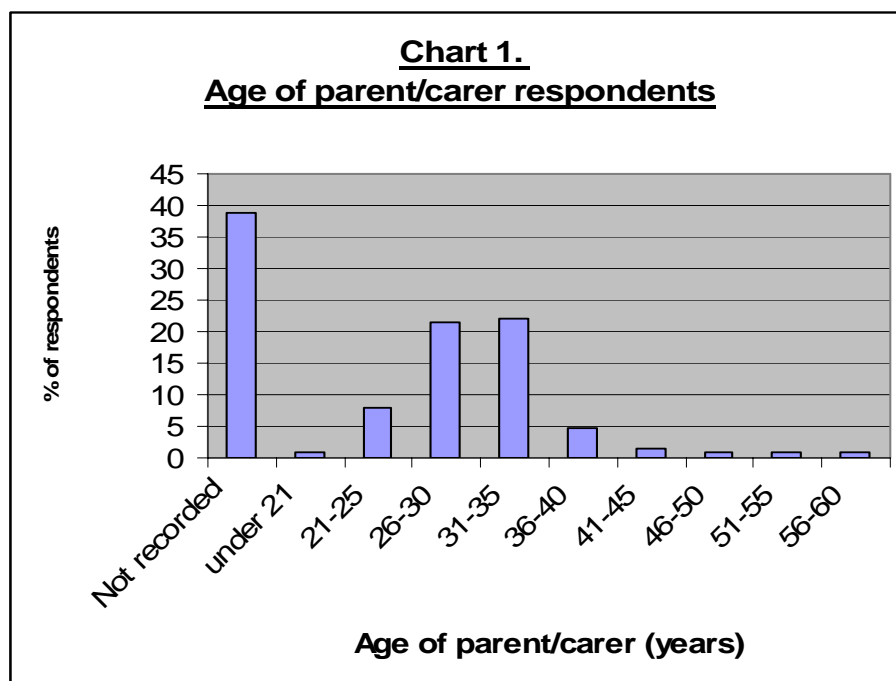


Chart 2.
Number of children in family

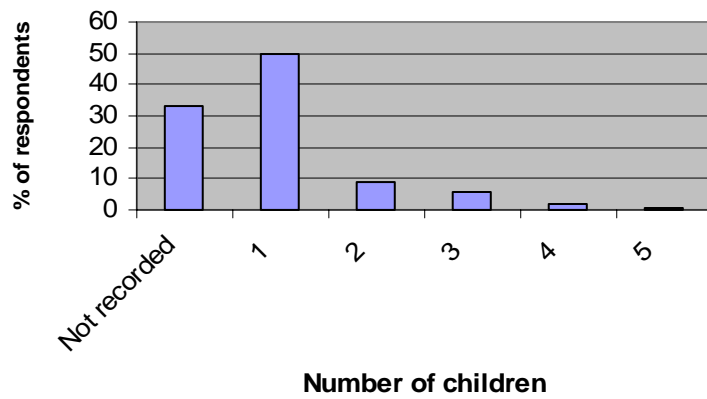


Chart 3.
Age of youngest child

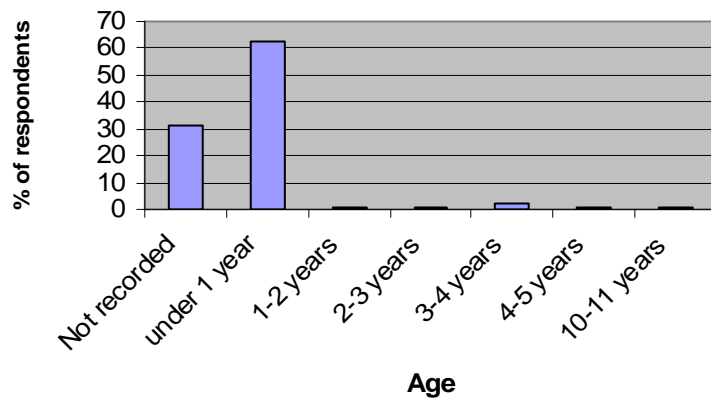


Chart 4.
Marital status

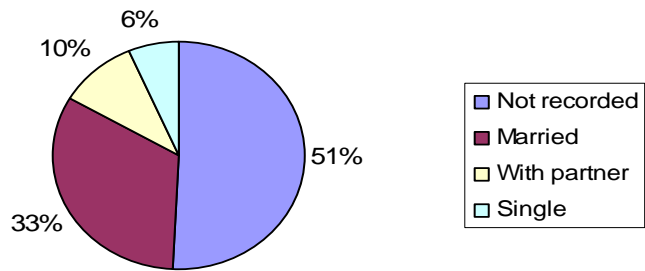
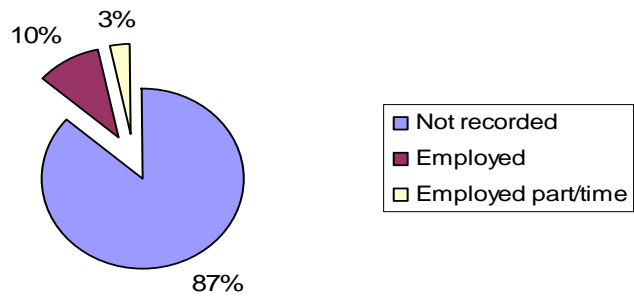


Chart 5.
Income status



When and where the parental education sessions took place

The chart below (Chart 6) illustrates when the educational sessions with parents took place. Initial training was delivered to the professionals themselves in February 2005.

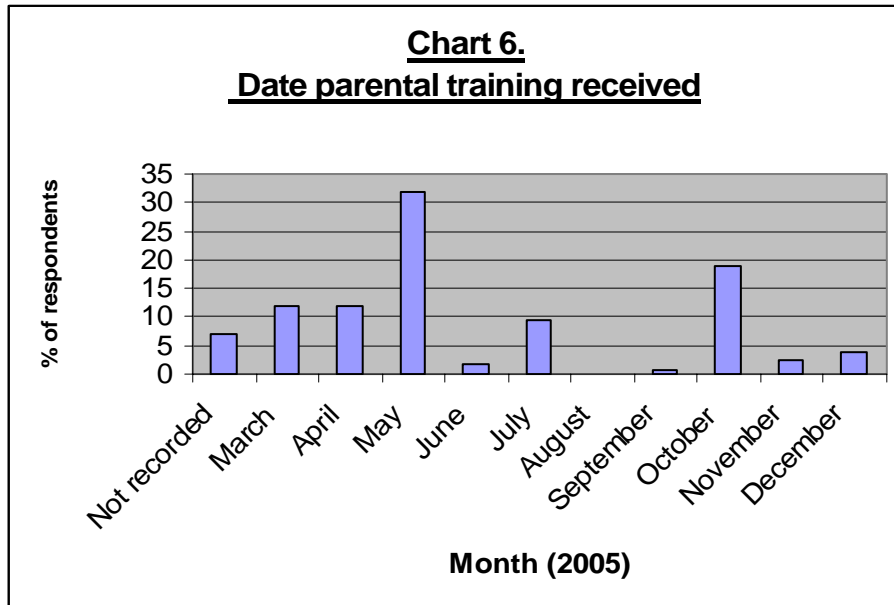
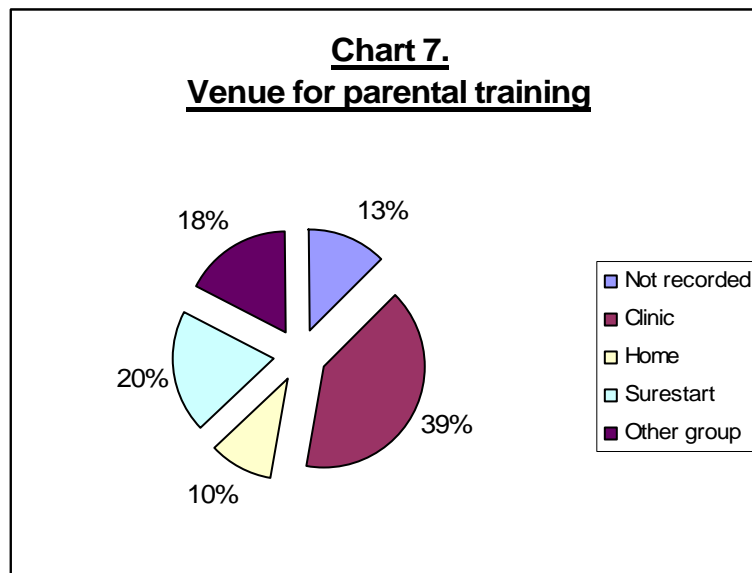


Chart 7 shows a breakdown of the venues used by health professionals for the sessions which they delivered.



Full numerical values for both of these charts are given at Appendix G. Total number of respondents, n = 126.

Impact of session on parents/carers

Of the 126 parents/carers who received burns/scalds training, 117 (92.9%) reported that they enjoyed the session. Four parents/carers (3%) reported that they neither liked nor disliked the session, and the remaining 5 individuals (4%) did not respond to this part of the questionnaire. (Please see Appendix D for pictorial representations used to gauge response).

When asked about the *most memorable message they had learned from the session*, 120 (95.2%) made comment. Full text responses are available at Appendix H. Responses were grouped into categories where specific mention was made of:

Table 8

	Number of respondents	Percentage
Burn/scald accidents/injuries	69	54.8
General accidents/injuries	49	38.9
Drowning	2	1.6
No response recorded	6	4.8

Parents/carers were asked “*how will the information you have heard today affect the way you think about the safety of your child/children?*”. A response was made in 114 (90.5%) of cases. Full text responses are available at Appendix I. Responses were grouped into categories as shown below:

Table 9

	Number of respondents	Percentage
GENERAL (take more care/increased vigilance/ greater awareness of risks)	92	73.0
BURNS/SCALDS (refer to risk reduction/prevention specifically of burns/scalds)	14	11.1
NEUTRAL (indicate no/little affect)	2	1.6
AFFECT NOT SPECIFIED (have responded “yes” with no further detail given)	6	4.8
NO RESPONSE RECORDED	12	9.5

Sixty-one (48.4%) of parents/carers responded to the question “*what other areas of awareness would be useful to you?*”. Full text responses are available at Appendix J. Responses were grouped into categories as shown below:

Table 10

	Number of respondents	Percentage
First Aid training	25	19.8
Burn/scald related	9	7.1
Home/general safety	9	7.1
None/neutral comment	8	6.3
Choking prevention/response	3	2.4
Medical/developmental	2	1.6
Safety Outdoors*	1.5	1.2
Poisoning*	1.5	1.2
Trips/Falls	1	0.8
Theft/stranger danger	1	0.8
No response recorded	65	51.6

* One respondent mentioned both safety outdoors and poisoning. In this case each was given a nominal value of 0.5 in order to keep totals correct.

Twenty-four parents/carers (19%) provided “*other comments*”. The majority of the comments were positive and related to the value of the session. These can be read in full at Appendix K.

Respondents were asked “*in the future, what changes will you make/or have you made to your surroundings as a result of this information?*”. They were then required to consider the changes within a timescale – immediately, within one month, in the future.

Changes immediately

One hundred parents/carers completed this section of the questionnaire (response rate 79.4%). Full text responses are available at Appendix L. Summary groupings of responses are provided below.

Table 11

	Number of respondents	Percentage
Check/install smoke alarms*	22.5	17.9
Ticked – no further detail given	18	14.3
Safety around hot drinks	15	11.9
Fire escape plan	8	6.3
Electrical safety	5	4.0
Chemical hazards*	4.5	3.6
Hot tap water*	4.5	3.6
Increased vigilance*	3.5	2.8
More safety equipment*	3.5	2.8
No changes	3	2.4
Fire guards	2	1.6
Block access to kitchen	2	1.6
Ironing safety*	1.5	1.2
Pass information on to partner	1	0.8
Other	6	4.8
No response recorded	26	20.6

* Several respondents mentioned two categories within their response. Each category mentioned was given a nominal value of 0.5 in order to keep totals correct.

Changes within one month

Thirty-nine parents/carers completed this section of the questionnaire (response rate 31%). Full text responses are available at Appendix M. Summary groupings of responses are provided below.

Table 12

	Number of respondents	Percentage
Electrical safety*	7.8	6.2
Chemical hazards*	5.5	4.4
Cupboard locks*	4.3	3.4
Check/install smoke alarms	4	3.2
Safety gates*	2.8	2.2
Fire guards*	2.5	2.0
Increased vigilance	2	1.6
Bath/water safety	2	1.6
Safety around hot drinks	2	1.6
Fire escape plan	2	1.6
Cover radiator pipes	1	0.8
Other	1	0.8
Ticked (no further detail given)	1	0.8
No changes	1	0.8
No response recorded	87	69

* Several respondents mentioned two categories within their response. Each category mentioned was given a nominal value of 0.5 in order to keep totals correct. Where respondents mentioned three categories, each was allocated a value of 0.33 in order to keep totals correct.

Changes in the future

Thirty-seven parents/carers completed this section of the questionnaire (response rate 29.4%). Full text responses are available at Appendix N. Summary groupings of responses are provided below.

Table 13

	Number of respondents	Percentage
Increased vigilance/more care*	8.8	7.0
Safety gates*	4.5	3.6
Fire guards*	3.8	3.0
Cupboard locks*	3.2	2.5
Safety around hot drinks	3	2.4
Fire safety officer to house/fire checks	2	1.6
No changes/not sure	2	1.6
Chemical hazards*	1.8	1.4
Install/check smoke alarm*	1.5	1.2
Electrical safety*	1.3	1.0
Radiator cover	1	0.8
Kettle safety	1	0.8
No access to kitchen	1	0.8
Keep benches clear	1	0.8
Don't use baby walker	1	0.8
No response recorded	89	70.6

* Several respondents mentioned two categories within their response. Each category mentioned was given a nominal value of 0.5 in order to keep totals correct. Where respondents mentioned three categories, each was allocated a value of 0.33 in order to keep totals correct.

“Spot the hazard” pictures

This element of the evaluation required parents/carers to identify five separate hazards depicted within a living room and kitchen setting. The exercise was completed before and immediately after parents/carers participated in the training session.

Of the 126 parents/carers who took part in the training, 120 completed the task before the session and 116 completed it after the session. For the purpose of analysis, only those respondents who completed the task **both** pre- and post- session have been included (n = 112).

It was apparent that many of the respondents had identified in excess of the five hazards required for each scenario. The analysis reflects this by categorising number of respondents by number of hazards identified. In order to assess the impact of the training, hazards specific to burn/scald prevention were identified within each response and are illustrated below (Table 15 and Table 17). Comparison of these profiles against those for the general hazards (Table 14 and Table 16) will indicate specific impact of training on burn/scald awareness.

Table 14

Number of **general** hazards identified in living room picture

n = 112

<u>Number of hazards identified</u>	<u>Number of respondents</u>		
	<u>Pre-training</u>	<u>Post-training</u>	<u>Difference Post - Pre</u>
<5	3	15	+12
5	53	50	- 3
6	10	11	+ 1
7	11	6	- 5
8	9	3	- 6
9	5	7	+ 2
10	9	5	- 4
11	4	5	+ 1
12	1	3	+ 2
13	4	2	- 2
14	1	5	+ 4
15	1	0	- 1
17	1	0	- 1

Table 15

Number of **burn/scald** specific hazards in living room picture

n = 112

<u>Number of hazards identified</u>	<u>Number of respondents</u>		
	<u>Pre-training</u>	<u>Post-training</u>	<u>Difference Post - Pre</u>
1		2	+ 2
2	3	6	+ 3
3	25	10	- 15
4	34	17	- 17
5	20	42	+22
6	18	20	+ 2
7	12	15	+ 3

Table 16

Number of **general** hazards identified in the kitchen picture

n = 112

<u>Number of hazards identified</u>	<u>Number of respondents</u>		
	<u>Pre-training</u>	<u>Post-training</u>	<u>Difference Post-Pre</u>
<5	8	10	+ 2
5	52	64	+12
6	10	7	- 3
7	8	4	- 4
8	9	2	- 7
9	6	8	+ 2
10	9	5	- 4
11	3	6	+ 3
12	6	2	- 4
13	0	1	+ 1
14	0	1	+ 1
15	1	0	- 1
16	0	1	+ 1
17	0	1	+ 1

Table 17

Number of **burn/scald** specific hazards identified in kitchen picture

n = 112

<u>Number of hazards identified</u>	<u>Number of respondents</u>		
	<u>Pre-training</u>	<u>Post-training</u>	<u>Difference Post-Pre</u>
1	3	5	+ 2
2	24	10	- 14
3	37	20	- 17
4	28	32	+ 4
5	19	39	+20
6	1	6	+ 5

6.4 Cost benefit of the programme

The total costs of the programme are provided below.

Purchase of dolls and prosthetic artist	£4200
Training packs for health professionals	£ 300
Administration	£ 500
Management	£1000
Travel	£ 145
Printing/Publicity	£2250
Research/Evaluation	£4000
Total	£12, 395

Total number of health professionals trained = 27

Cost per health professional = £459.07

Total number of parents trained (estimate based on 10 parents/carers per professional)

18 of the 21 health professionals who participated in the follow-up evaluation had delivered training (i.e. 85.7%). Applying this to the six members of staff who were unable to participate in the follow-up evaluation would give an additional 5 professionals who had delivered training i.e. a total of 26.

26 professionals x 10 parents/carers trained = 260 parents/carers trained

Estimated cost per parent/carer = £47.67

7 DISCUSSION

7.1 Development of the Whoops! Baby Burns Programme

The premise of the Baby Burns Programme was to develop an educational programme providing training for health professionals which enabled them to cascade knowledge and skills to parents/carers. The content and training methods employed evolved from previous work conducted in the community by the Whoops! Child Safety Project.

The programme was lead by the manager of the Whoops! Child Safety Project (a qualified first-aid trainer), and a health visitor with an interest in injury prevention. The aim was to provide health professionals with the information and tools to deliver safety training to parents/carers in either a group setting or in their own home. Emphasis was placed on using interactive, participative methods for presenting information. The training used “real life” case studies, photographs and specially customised first-aid dolls to illustrate the effects of injury.

7.2 The views of health professionals

Obtaining the views of health professionals involved in the programme was a two-stage process. A 92.5% response rate was achieved for the initial evaluation questionnaire completed immediately after training. A 77.8% response rate was achieved at follow-up (11 months after initial training) with representation from all but one of the original fourteen clinics/bases.

Quality of training programme

At the initial evaluation, the quality of training was rated very highly, 76% participants graded it 10/10 for information content and 80% graded it 10/10 for the content of the supporting resource pack. At this stage, health professionals indicated that they intended to use the information provided to raise awareness amongst parents/carers. At the follow-up evaluation, enthusiasm for this method of working with parents remained high with professionals continuing to hold a positive view of the initial training session.

Impact on health professionals

The follow-up evaluation was conducted eleven months after the initial training but despite this, recall of information was not found to be a particular problem amongst those trained. Professionals reported that the original training raised their own awareness of burn/scald safety and this appears to have been sustained. Some examples were given of behaviour change (e.g. installation of smoke detectors at home) amongst professionals. These changes may result in the health professional being seen as a role model and in one case their “safer behaviour” (keeping hot drinks away from young children) being adopted by the client group.

Delivering training to parents/carers

At follow-up the majority of health professionals had undertaken some training with parents/carers (66.7% of total, 85.7% of those participating in follow-up evaluation). Barriers to having completed training were lack of time (particularly for individual

sessions at home visits), lack of space in which to run group sessions and no immediate need from client group since this was being met elsewhere.

Health professionals were divided as to the best method of delivering training with some having used both group sessions and individual home visits. Advantages and disadvantages of both methods were identified.

Group sessions may be more cost-effective in terms of reaching greater numbers of people for the time invested, but attendance can be unpredictable. By linking with established groups, health professionals were able to deliver their information in a setting in which people were comfortable with each other and to take advantage of the opportunity to share opinions and ideas. This can be valuable in generating discussion and maintaining the interest of those participating. In some instances training had been co-delivered by health professionals (e.g. health visitor and staff nurse) presenting opportunity for collaboration and skill-sharing. The presence of several young children at group training sessions, particularly once they are mobile, can be disruptive and may limit the impact of the training. Since the nature of parent/toddler groups is to keep the children with the adults, crèche facilities are not usually available or necessarily appropriate in this environment.

One-to-one sessions within the parent/carer's home can be time consuming but do offer the opportunity to adapt the information and the style of presentation to meet the specific needs of the individual. With less disruption from other children and fewer distractions than in a group setting, they may also make it easier to hold the parent/carer's attention.

In both home and group settings, health professionals found it helpful to link the safety information with a routine visit or session, for example weaning when the child is around 12 weeks old, or with the 2-year developmental check. The focus of the safety information can then be structured around the stage of development of the child, encouraging parents/carers to anticipate future hazards.

Key messages

Follow-up evaluation with health professionals indicated that most had adapted the content of their sessions to meet client needs. This was particularly the case with respect to the more graphic material – the video, the photographs and the Baby Burns doll – where parents/carers were pre-warned about the material and resources were used at the discretion of the health professional. These same resources were those rated to have the highest impact amongst health professionals following their initial training session. The element of the resource pack most likely to be omitted when training parents was the statistics since they were perceived as “too dry”. Interestingly, for one health professional working with a black/minority ethnic client group, this element was considered a better way of delivering information than using anecdotes or case studies. The importance of keeping statistical information up-to-date was highlighted.

The key messages delivered varied between professionals and between parent/carer sessions. Those mentioned most frequently were safety around hot drinks, smoke detectors, chemical/electrical burns and fire escape plans. Most professionals employed visual techniques to convey and reinforce these messages, in particular the

photographs/case studies and the Baby Burns doll. Relating anecdotes and sharing personal experience encouraged parental participation and made the process less threatening.

Health professionals reported that parents seemed very receptive to the information, in particular first-time parents and there appears to have been a high level of interest in this and associated topics.

The sessions also enabled health professionals to identify gaps in parent/carer knowledge and gave the opportunity to address some of these. For example, in the emergency treatment of burns/scalds the view still persists that creams or butter should be applied.

Parental evaluation

The evaluation form used presented few problems to most of the parents/carers trained. Where problems were encountered, the parents did not have English as a first language and additional support was needed to assist them in completing the questionnaire. If the scheme is to be extended it may be appropriate to consider the translation of materials to meet the needs of the client group.

The training register which health professionals were asked to keep may require modification. There was general opinion that some of the information required was of a sensitive nature and should be completed at the discretion of the individual. Low completion rates for fields such as marital status and income have resulted in an incomplete analysis for these variables.

7.3 **The views of parents/carers**

The views of parents/carers were collated from self-completion questionnaires distributed immediately before and after the training sessions took place. Although 18 health professionals reported that they had delivered training, evaluations were received from only 11 of these, representing 9 of the original 14 clinics/bases participating in the programme.

This discussion is based upon analysis of the 126 parental questionnaires returned in an 11-month period (March 2005 – January 2006) following initial training of health professionals.

Parent profile

For reasons discussed earlier in this section, personal data was not available on all parents/carers. An overview of the data collated suggests that the majority of parents/carers (43.6%) who received training were aged between 26-35 years. Half of those completing the evaluation (50.0%) were first-time parents and most (62.7%) had children aged under one year. Marital status of parents/carers was not recorded in over half the cases, 42.8% were married/living with partner, 6.3% were single. The income status of participants was not recorded in 86.5% of cases making further analysis inappropriate.

Delivery of training

The majority of parental training sessions (73.7%) took place in the five months following initial training of health professionals (March – July 2005). Both individual and group training took place, with the majority of respondents (77.0%) having attended a group session, compared to 10% receiving training at home.

Impact on parents/carers

The overwhelming majority of parents reported that they enjoyed the session. In 54.8% of cases, the parent/carer had identified a burn/scald related message as the most memorable from the session. In addition, general child safety awareness appears to have been raised with 73.0% of parents indicating that they would take more care/have greater awareness of injury risk following the training session. Since the evaluation was completed immediately after the training session, it is not possible to say whether this state of heightened awareness was sustained over time. As suggested by health professionals, parents do appear to be receptive to the topic of safety, with several expressing interest in first aid training, further burn/scald safety and home/general safety training.

Parents/carers were enthusiastic in their completion of the “Spot the Hazard” exercises and many found in excess of the five hazards required. In both the living room and kitchen scenarios the number of general hazards identified ranged from less than 5 to 17 (Tables 14 and 16). Looking at burns/scald specific hazards (Tables 15 and 17), a general shift can be seen toward identification of more hazards after training. In the living room scenario, 27 more people identified five or more burn/scald specific hazards after training than did beforehand. In the kitchen, a similar pattern emerges with 29 more people able to identify five or more burn/scald specific hazards after training compared to before. This again appears to suggest that the training session has raised parent/carer awareness of burn/scald specific risks.

Within the scope of this evaluation it is only possible to measure the impact on behaviour change in terms of those things which parents/carers report that they *will* take action on following training. The most popular responses when asked what changes they would make immediately were checking/installing smoke detectors (17.9%), safer practice around hot drinks (11.9%), chemical/electrical safety (7.6%) and devising a fire escape plan (6.3%). These relate closely to those areas prioritised by health professionals, indicating that the key messages have been received by the target group. Those changes which parents/carers report that they intend to make over time include the installation of safety gates and cupboard locks, reflecting the developmental stages which their child will go through. Anecdotal examples from professionals of a parent/carer purchasing a first aid kit, a grandparent purchasing a smoke detector and several parents enrolling for first aid/CPR training are an encouraging indication that the programme can impact on behaviour. In addition, the programme linked into a further intervention delivered by the Fire Service - the provision and fitting of smoke detectors. Thus an unidentified number of participants may have benefited from the installation of safety equipment requiring minimal behaviour change in order to be effective in reducing the risk of injury.

7.4 **Cost benefit of the programme**

Measuring the cost benefit of community-based safety interventions is far from simple. Few examples exist of robust methods which could be applied within the scope of this evaluation and the figures presented give what is likely to be an underestimate of the value of the programme. Since this was a pilot project, there are start-up costs which may be reduced should the programme run again in the future. The number of parents/carers who received the training is estimated since exact numbers were not available from health professionals. No account is taken of relatives/friends of participants (both professionals and lay persons) who may have benefited from safety advice as a result of the training.

7.5 **Factors which may contribute to the success of the programme**

The programme was designed to increase capacity for delivering safety training within Gateshead, thereby reducing demand on staff from the Whoops! Child Safety Project. By working alongside health professionals with a remit for public health and the promotion of safety amongst families with young children, both groups have benefited from participation in the scheme. The ensuing links between the Project and health professionals have served to strengthen collaborative working.

The nature of the programme is such that it can be modified to meet the needs of the target group. The supporting resource pack provides an effective means of adapting the method of delivery and is suitable for use with both groups and individuals.

Rather than increasing the workload for health professionals, the key messages from the programme can be factored into routine client contacts, for example during group discussions on weaning or during developmental checks at two years.

The interactive way in which the material is delivered encourages participation of the target group. Use of high impact, visual material assists in communicating the key messages.

7.6 **Suggestions for the future**

The following suggestions were made by health professionals and parents involved in the programme and should be noted prior to the delivery of any future training.

- Resources to be reviewed for quality and accuracy and updated as appropriate
- Means of documenting delivery of the sessions within the child health record to be explored
- Register of those attending training to be modified in light of the sensitivities expressed over the nature of information required
- Summary handout to be considered as aide memoir for professionals
- Handout for parents following group sessions to be considered

In addition, the approach adopted could be extended by:

- Exploring other target groups e.g. ante-natal classes, secondary school-children
- Addressing other topics e.g. choking, drowning and incorporating seasonal safety messages
- Expanding the scheme to meet needs across the whole borough thereby increasing capacity for all client groups

7.7 **Limitations of the evaluation**

The findings of the evaluation are limited by the “response rate” for both health professionals and parent/carers. Not all health professionals were available to participate in discussion groups/interview at follow-up. Only 40.7% of health professionals submitted parent/carer evaluations for those trained and is not possible to say whether those received are truly representative of the whole population.

The evaluation methods used give an indication of the impact of the training on knowledge and reported behaviour in the short term. It would be valuable to know to what extent the changes reported are sustained in the medium-long term and to validate the reported behaviour changes by observation.

The findings of the evaluation are confined to those groups (health professionals and parents/carers) who were directly involved in the delivery of the training. No measure is taken of the “knock-on” effect which the training may have had within the wider professional and social settings.

8 **CONCLUSION**

The “Baby Burns” programme is an effective way of raising awareness of burn/scald injuries to young children amongst professionals and parents. It may also prove effective in influencing safer behaviours. The programme offers an interactive, enjoyable and innovative means of addressing burns/scald safety. The use of highly emotive, visual resources enhances delivery of the key messages. The methodology employed could be extended to address other topics and/or target groups.

9 **RECOMMENDATIONS**

- That the programme be extended to provide training for health professionals across the Borough of Gateshead, thereby offering burn/scald education to all client groups.
 - That the content/delivery be modified for use with other target groups e.g. ante-natal classes, secondary school children
 - That the model used in development and delivery of the Baby Burns programme be adapted for use with other safety topics e.g. choking, drowning
- and
- That the content of the training material and supporting resources be reviewed and updated, taking into account the findings of the evaluation of the pilot programme.

10 APPENDICES

Appendix A	Interview schedule for staff involved in design, recruitment and delivery of the training programme.
Appendix B	Staff evaluation form (blue)
Appendix C	Staff discussion group outline schedule
Appendix D	Parent/carer evaluation form (yellow)
Appendix E	Parent/carer training register (pink)
Appendix F	Numerical values for Charts 1 – 5
Appendix G	Numerical values for Charts 6 and 7
Appendix H	Full text responses for Table 8
Appendix I	Full text responses for Table 9
Appendix J	Full text responses for Table 10
Appendix K	Full text responses to “other comments”
Appendix L	Full text responses to Table 11
Appendix M	Full text responses to Table 12
Appendix N	Full text responses to Table 13

