Chapter 3

3 QUANTITATIVE APPROACH

3.1 INTRODUCTION

This chapter will outline the quantitative data collection before describing the characteristics of the research participants and the characteristics of the children cared for during the period of this evaluation. The data were collected from two cohorts of foster carers who attended the Attachment Training course entitled ‘Helping Children to Form Good Attachments’ in May (2009) and November (2009). An analysis of the data, the results and a full discussion of the findings in relation to current literature will then be explored. Quantitative data were used to triangulate the qualitative data and provide a more comprehensive and complementary body of evidence which may illuminate further understanding and provide explanations for what was observed.

Quantitative data were collected as a baseline measure pre, post and follow up training. Data collected from the foster carers participating in this study were analysed to show whether attending the training programme had led to any perceived changes over time in the behaviours of their foster children or if they were new foster carers, without any foster children, behaviours of their birth children. In addition data were analysed to show whether these perceived changes in behaviour had an impact on family functioning. The foster carers were asked to complete the questionnaires in respect of the same foster child or birth child, about whose behaviour they were most concerned, prior to the training and twelve weeks after the training programme. Data were also gathered in relation to whether there were significant changes in the knowledge and understanding of the foster carers in relation to the mental health needs of looked after children and whether they were satisfied with the content, organisation and format of the training.
3.2 DATA COLLECTION

Data were collected from two cohorts of foster carers between 23rd April and 17th July 2009 (Cohort One: n= 14) and 15th October 2009 and 5th February 2010 (Cohort Two: n=7). The questionnaires were administered to the foster carers to complete pre, post and 12 weeks following the training.

A total of 21 foster carers participated in this research and it is important to note that 10 foster carers were new to fostering and therefore had no experience of fostering. A decision to let new foster carers score the questionnaires against their birth children was adopted as the aim of the questionnaires was to gain an understanding of the foster carer’s perception of the behaviours of children and their impact upon the family and this would still apply regardless of whether they were birth children or foster children. It is important to note however, that as discussed in the literature review, the baseline measures for emotional health difficulties is higher for children in care and therefore the data gathered were analysed separately in relation to foster children and birth children.

A detailed description of the four questionnaires is outlined below noting the measures, administration, scoring and validation of the tools.

3.2.1. STRENGTH AND DIFFICULTIES QUESTIONNAIRE (SDQ)

The Strengths and Difficulties Questionnaire (SDQ) (Goodman, 1999) was chosen to describe the baseline emotional health characteristics of the children cared for by the foster carers. It is a standardised tool, self reporting and measures the foster carer’s perception of the level of emotional and behaviourlal difficulties presented by the child in their care.

The SDQ is a short 25 question behavioural screening questionnaire for three to 16 year olds. It is currently routinely used in practice as one of the questionnaires accompanying the Department of Health’s (DH, 2000) Framework for the
Assessment of Children in Need and their Families, as it provides a clear evidence base for judgements regarding the needs of children and measures aspects of a child’s emotional wellbeing and behaviour. Goodman et al (2000) highlighted that this screening tool could increase the prediction and detection of child psychiatric disorders thereby improving access to effective treatment. The purpose is to identify how likely the foster child is at risk of having emotional and behavioural difficulties.

There are currently four subscales that are used to assess the level of difficulty presented by the child in four areas (emotional, conduct, hyperactivity and peer relationships scores are higher when they are more severe) and one subscale that measures the level of pro social behaviour (scores are lower when they are more severe) (Laybourne et al, 2008). In brief, the emotional symptoms scores relate to the level of anxiety presented by a child, the conduct problems subscale refers to the level of challenging behaviour that may be expected, the hyperactivity subscale measures an area of behaviour which is associated with impulsivity and inattention and the peer problems subscale is related to low self esteem. The pro social subscale can be an indicator of a child’s potential to co-operate with others. Copies of the all the questionnaires used are in Appendix 5. The function, administration, interpretation and psychometric properties of these measures are summarised in Appendix 10.

3.2.1.1 ADMINISTRATION

The Strength and Difficulties Questionnaire (SDQ) was administered to the foster carers a week prior to the training and 12 weeks post training. The questionnaire takes approximately 10 minutes to complete.

3.2.1.2 SCORING

Foster carers were asked to complete the questionnaires by scoring each statement as ‘not true’, ‘somewhat true’ and ‘certainly true’. Summative scores were produced for each of the five subscales. To generate the total difficulties score, the sum of the four subscales dealing with problems was taken (emotional, conduct, hyperactivity
and peer relationships). The scoring of the Strength and Difficulties Questionnaires (SDQ) (Goodman, 1999) was undertaken using the on-line scoring website (www.sdqscore.org) and the results were analysed to produce scores for each of the five subscales. The aggregate score obtained provided a total difficulties score within which 0-13 is considered the most commonly found score within the general population and equates to a ‘low’ score, 14-20 is borderline and equates to ‘some’ problems and 20-40 equates to a ‘high’ score. As in many other studies, provisional bandings were used for the purposes of categorisation (Cox & Bentovim, 2000; Davis & McAuley, 2008; Rose et al, 2009). The presentations of these scores were simplified into ‘high’, a very serious level of problem, ‘some’ which equates to evidence of several problems and ‘low’ which indicates a level which would not cause concern in the average child in 90% of the population. In the general population, only 5% of children are expected to score a high level with a further 5% displaying medium level of problems or difficulties in the four areas.

3.2.1.3 VALIDATION

The strength of this assessment tool is that it has been widely used within Child and Adolescent Mental Health Services (CAMHS) nationally and has proven reliability and validity. Research studies using the SDQ along with research interviews and clinical ratings have shown that the SDQ is sensitive to treatment effects (http://www.sdqinfo.org/d0.html). The results from a number of research studies have revealed that the SDQ is able to accurately identify individuals with a psychiatric diagnosis with a specificity of 80% and a sensitivity of 85% (Goodman 2000). In addition it has been used with a similar sample of school age children residing in care in many other studies (Minnis & Devine, 2001; Golding & Picken, 2004).

3.2.2 THE FAMILY IMPACT QUESTIONNAIRE (FIQ)

There are many studies that have identified how parental stress can impact on mother and child interactions, perceptions of problems and self esteem when comparing norms to hyperactive children (Mash & Johnson, 1983; Breen & Barkley, 1988; Mash & Johnson, 1990). This short, simple and easy to use tool was chosen after a review of standardised tools within which there were many
potentially suitable ones to consider including the Parenting Stress Index (Abidin, 1990), Expression of Feelings in Relationships Questionnaire (Quinton et al, 1998) and the Child Behaviour Checklist (CBCL) (Achenbach, 1983). However stress is only one potential impact and it was felt that evaluating foster children’s impact over several dimensions of family functioning (such as the impact upon siblings and marriage) would be interesting and enlightening.

Donenberg and Baker (1993) identified that high levels of stress can interfere with carrying out a behaviour management programme and this may negatively bias parent’s perceptions of their child (Baker, Landen & Kashima, 1991). They found heightened stress and parental maladjustment in families with externalising children and autism in addition to a high impact on social life. Tackling stress for foster carers is crucial for stability of placement and identifying the impact of fostering children upon all areas of family functioning, therefore this tool was chosen.

The Family Impact Questionnaire (FIQ) (Donenberg & Baker, 1993) assesses the impact of caring for children in relation to six areas of family functioning which included positive and negative feelings toward the child as well as the perceived impact of the child on participant’s social life and where appropriate partner, finances and sibling relationships. The FIQ is a 50 item questionnaire which included questions related to the foster carer’s feelings and attitudes towards their child, the perceived impact of the child upon the parent’s day to day living, the financial impact, the impact upon their marriage, social life and siblings.

3.2.2.1 ADMINISTRATION

The Family Impact Questionnaire (FIQ) was administered to each foster carer a week prior to the training and 12 weeks post training. It takes approximately 10 minutes to complete.

3.2.2.2 SCORING

Foster carers were asked to complete the questionnaires by scoring the extent to which they agreed with the statement. The scores represented the following; 1 = Not
at all, 2 = somewhat, 3 = Much, 4 = Very much. Responses to the questions were added up separately to give an aggregate score for the six areas as follows:

(1) Negative feelings toward the child (Questions 1,3,8,9,10,11,14)
(2) Positive feelings towards the child (Questions 2, 4, 5, 6, 7, 12, 15) these scores are reversed.
(3) Impact on social life (16-25)
(4) Impact on finances (26-32)
(5) Impact on marriage (33-39)
(6) Impact on siblings (40-48)

3.2.2.3 VALIDATION

The strength of this standardised assessment tool is that it has been validated through research and has proven reliability and validity (Donenberg & Baker, 1993). Studies using the FIQ have shown that it is sensitive to treatment effects with reported scale reliabilities ranging from r = .83 to .92.

3.2.3 KNOWLEDGE QUESTIONNAIRE

In addition to the two validated questionnaires, outlined above, a multiple choice knowledge based questionnaire which was designed by the trainers was also utilised. A knowledge questionnaire was devised in order to measure levels of prior knowledge, measure changes in knowledge post training and whether knowledge was retained at follow up (12 weeks). A study conducted by Golding and Picken (2004) demonstrated an increase in knowledge following the foster parent training over 10 weeks. Other studies have identified a link between the change in knowledge base and confidence levels for foster carers (Laybourn, Anderson & Sands, 2008). The rationale being, the more foster carers are aware and prepared through the attainment of increased knowledge, the more confident they become in managing challenging behaviour (DfES, 2005b).
3.2.3.1 CONSTRUCTION AND PILOTING OF THE KNOWLEDGE QUESTIONNAIRE

The knowledge questionnaire was piloted with a group of 22 foster carers who attended the mental health training in 2008 and were not involved in this study. The questionnaire aimed to assess the participant’s knowledge based upon the content of the training programme and was adapted after using feedback from participants. The participants who took part in this pilot described the problems they encountered filling in the knowledge questionnaire. Feedback included the need for a reduction in the number of multiple-choice questions from fourteen to four and a reduction from eight to one in the open ended questions.

The final version of the knowledge questionnaire consisted of six questions which required recall of information taught on the two day training programme. These questions comprised of four which were multiple choice, one an open question regarding linking theory to practice and one question which used a tick box response. Care was taken to ensure that the multiple choice questions always contained one correct answer and some realistic alternatives which were approximately the same length to avoid choosing the ‘odd one out’. The open ended question provided several lines for open comment. The questions are outlined below in more detail:

- Question one aimed to ascertain knowledge regarding how many children present with mental health difficulties in comparison to the general population. This was a multiple choice question.
- Question two required a multiple-choice definition of attachment.
- Question three was an open ended question related to how a good attachment relationship can help a child who is traumatised. This required the participant to have retained understanding about how they can support a child’s mental health needs.
- Question four related to developmental milestones and the age of children when they reach them. This required recall of information from the training and had two answers.
- Question five was a multiple-choice question about hormones released in the brain during stressful periods. This required recall of information from the training.
- Question six related to factual information about the brain in a multiple choice format. This required recall of information from the training.

3.2.3.2 ADMINISTRATION

This was a self administered tool which takes approximately 10 minutes to complete. This tool was short, simple and easy to administer in order to aid the process of the collection of data.

3.2.3.3 SCORING

The knowledge questionnaire was scored by giving the five closed questions a numerical score and an aggregate of these scores was presented within a table format. The open question was also coded and given a score for the purposes of analysis. Please refer to Appendix 11 for a summary of the scoring for the knowledge questionnaires.

3.2.3.4 VALIDATION

This tool was not validated but has been based on a review of current pertinent literature and extensive piloting in the initial development stage. Golding and Picken (2004) devised a similar knowledge questionnaire when evaluating group work with foster carers caring for children with complex problems and found theirs a useful tool to demonstrate change in knowledge over time.

3.2.4 LOCAL AUTHORITY SATISFACTION QUESTIONNAIRE

The satisfaction questionnaire was chosen as it had previously been used routinely to evaluate approximately 21 previous training groups over the last seven years and
measures the level of satisfaction in relation to the content, organisation and delivery of the training.

This questionnaire measured levels of satisfaction with the training group. Foster carers were asked to rate the usefulness of the group by answering 15 questions related to the four key areas below:

- Whether the course objectives were met and the training offered reflected non-discriminatory practice.
- Format of the group including the information received regarding the training, the standard of presentation, trainers pace, handouts, size and composition of the group and learning issues.
- Practical arrangements (i.e. venue, travel arrangements etc.).
- Summary of change in practice and recommendations regarding the design of the training.

3.2.4.1 ADMINISTRATION

Again this self-administered tool was short, simple and easy to administer taking approximately 10 minutes for each foster carer to complete.

3.2.4.2 SCORING

Foster carers rated their overall level of satisfaction with the group training on a 4 point Likert Scale (1=Poor/lowest and 4=Very good/highest). A summary of the percentage of scores in each scale for every question was displayed in the results section using a table in order to highlight levels of satisfaction.

3.2.4.3 VALIDATION

This tool was not validated but is used as a standard outcome tool within the evaluation of training groups within the Local Authority’s training calendar for foster carers. It was devised and piloted by the Local Authority. This satisfaction
questionnaire is routinely administered by the Learning and Development Officer (LDO) immediately after all training completed by foster carers who access training through the foster carers training calendar. This is usually the only evaluation that has been analysed in the past to rate various aspects of the training provided by the CAMHS/LAC.
3.3 CHARACTERISTICS OF THE RESEARCH PARTICIPANTS

3.3.1 COMBINED COHORTS

Two cohorts, Cohort One (May 2009, n=14) and Cohort Two (November 2009, n=7), with a total of 21 participants were interviewed pre, post and twelve weeks following the two-day training workshops. A decision to consider the two cohorts combined was made once it was identified that there were no outliers in the data and in order to strengthen the statistical data. A breakdown of the characteristics of participants (foster carers) and the foster children and birth children in placement within these two cohorts are displayed and described in detail in Appendix 12 and Appendix 13. In total 11 of the foster carers had foster children in placement and based their responses to the questionnaires based on 11 of their foster children. Those 10 foster carers without foster children in placement based their responses to the questionnaires on their 10 birth children.

Given there was such a high number of birth children, the decision was made to analyse and present the results in relation to the foster children and birth children separately. The literature review revealed that the baseline measures for children in care in relation to their emotional and psychological health are higher and therefore it is important to analyse the results separately in order to avoid conflating the data. In addition it was felt that the perceptions of foster carers in relation to perceived behavioural changes in children they foster might be different in relation to their own children. The results will then be explored and discussed in relation to the current literature.

All participants were employed as foster carers in their own right and this included all the males and females who took part in the study. Table 2 below outlines a breakdown of characteristics of the participants within the combined cohorts. The table describes the number of foster carers (participants) who took part in the research, their gender, ethnic origin, the number of years they have been fostering, the number of children fostered in the past and the number of foster children and birth children they had in placement when the training took place.
Table 2: Characteristics of Research Participants (Foster Carers)

<table>
<thead>
<tr>
<th>(n=21)</th>
<th>Gender</th>
<th>Age Mean</th>
<th>Ethnic Origin</th>
<th>No. of years fostering Mean</th>
<th>No. of children fostered Total</th>
<th>No. children currently in placement</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
<td></td>
<td></td>
<td>Foster Birth</td>
</tr>
<tr>
<td>7</td>
<td>14</td>
<td>44</td>
<td>50</td>
<td>19</td>
<td>2</td>
<td>8 years</td>
</tr>
<tr>
<td>504</td>
<td>17</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There were a high number of females fourteen (66%), in comparison to males seven (33%). The majority of foster carers were of White British origin 19 (90%) whilst two (10%) foster carers were from Africa. The participants’ ranged from the youngest at 33 years to the oldest 64 years. The mean age of men was 44 years and women 50 years. The estimated levels of experience in terms of years fostering varied significantly from 0 to 20 years (mean of eight years). Eight of the 14 foster carers (five males and three females) had had no experience of fostering. The number of foster children in placement during the training workshop was 17 and the number of birth children was 10.

3.4 CHARACTERISTICS OF CHILDREN

The characteristics of the foster children and birth children in terms of sex, age, ethnic origin and mental health issues are shown in Table 3 (foster children) and Table 4 (birth children). A more detailed description of the characteristics of the foster children in placement and foster carers’ birth children can be found in Appendix 13.

3.4.1 FOSTER CHILDREN IN PLACEMENT

The combined numbers of foster children in placement were 17 children and young people. One young person was over 16 years and 16 children were aged 16 years and under. These 17 children and young people were cared for by 11 of the foster carers who took part in the study. Table 3 summarises the characteristics of the foster children and young people who were cared for by foster carers participating in the two day training programme.
Table 3: Characteristics of Foster Children in Placement.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age Range (Mean)</th>
<th>Ethnic Origin*</th>
<th>Mental health issues</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gender</td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>(n=17)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


There were 17 children being cared for, nine (52%) of whom were males and eight (48%) females. In total, eight of the 17 foster children had experienced mental health issues. This was defined as children who had received treatment from a mental health service. With a male age range from one to 20 years, the mean age of boys was 13 years. With a female age range from seven to 16 years, the mean age of girls was 14 years. The most frequent age of the children was 15 years old. Ethnicity varied with three young people Mixed Race, seven White/British, five Asian, and two Black/African.

All 11 foster carers completed questionnaires on 11 foster children (one per foster carer).

3.4.2 BIRTH CHILDREN IN PLACEMENT

The combined numbers of birth children in placement were 10 children and young people. Two young people were over 16 years old and eight children were age 16 years and under. These 10 children and young people were cared for by 10 of the foster carers who took part in the study. Table 4 summarises the characteristics of the children and young people who were the birth children of the foster carers participating in the combined cohorts during the two day training programme.
Table 4: Characteristics of Birth Children in Placement.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age Range (Mean)</th>
<th>Ethnic Origin</th>
<th>Mental Health issues</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td>M</td>
</tr>
<tr>
<td>(n=10)</td>
<td>5</td>
<td>5</td>
<td>9-16y (12y)</td>
</tr>
</tbody>
</table>


There were 10 birth children being cared for, five (50%) of whom were males and five (50%) were females. One birth child had experienced mental health issues. With a male age range from nine to 16 years, the mean age was 12 years. With a female age range from six to 20 years, the mean age of girls was 13 years. The most frequent age of children was 16 years old. Ethnicity varied with two young people Black/African and eight young people White/British.

Two of the foster carers did not complete the follow up questionnaires which means eight foster carers completed questionnaires on eight birth children.

3.5 ANALYSIS, RESULTS AND DISCUSSION OF QUANTITATIVE QUESTIONNAIRES

All the measures were scored in accordance with the guidelines provided within the validated questionnaires. The SDQ, FIQ and Knowledge Questionnaire measures have been quantitatively analysed using a Statistical Package for the Social Sciences (SPSS 16).

3.5.1 STRENGTH AND DIFFICULTIES QUESTIONNAIRE (SDQ)

3.5.1.1 ANALYSIS

Using SPSS, a descriptive numeric analysis of the questionnaires was performed to calculate the mean and explore central tendencies and measures of dispersion including the variance and standard variation. In total 19 of the foster carers
completed the SDQ at the two time points based upon their perceptions of foster children (n=11) and birth children (n=8).

3.5.1.2 RESULTS

3.5.1.3 MEAN SCORES

The SDQ subscale scores were calculated pre training and twelve weeks follow up training, in order to identify if the perceived behaviours of foster children (Table 5) and birth children (Table 6) had changed over time.

Table 5: Comparison of SDQ mean scores of foster children at pre training and follow up (n=11)

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Pre-Training</th>
<th>Follow Up</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. Dev</td>
</tr>
<tr>
<td>Total Difficulty</td>
<td>16.55</td>
<td>9.22</td>
</tr>
<tr>
<td>Emotional Symptoms</td>
<td>4.18</td>
<td>3.12</td>
</tr>
<tr>
<td>Conduct Problems</td>
<td>4.18</td>
<td>2.35</td>
</tr>
<tr>
<td>Hyperactivity</td>
<td>4.73</td>
<td>3.22</td>
</tr>
<tr>
<td>Peer Problems</td>
<td>3.64</td>
<td>2.54</td>
</tr>
<tr>
<td>Pro-social Behaviour</td>
<td>5.18</td>
<td>2.35</td>
</tr>
</tbody>
</table>

Table 6: Comparison of SDQ mean scores of birth children at pre-training and follow-up (n=8)

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Pre-Training</th>
<th>Follow Up</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. Dev</td>
</tr>
<tr>
<td>Total Difficulty</td>
<td>10.63</td>
<td>7.17</td>
</tr>
<tr>
<td>Emotional Symptoms</td>
<td>2.50</td>
<td>2.13</td>
</tr>
<tr>
<td>Conduct Problems</td>
<td>1.62</td>
<td>2.06</td>
</tr>
<tr>
<td>Hyperactivity</td>
<td>4.50</td>
<td>2.97</td>
</tr>
<tr>
<td>Peer Problems</td>
<td>1.75</td>
<td>1.48</td>
</tr>
<tr>
<td>Pro-social Behaviour</td>
<td>9.13</td>
<td>1.45</td>
</tr>
</tbody>
</table>

Tables 5 and 6, show that there has been a positive change in all the mean scores, across all the domains (a reduction across the problem subscales (emotional symptoms, conduct problems, hyperactivity and peer problems) and an increase in the pro-social subscale) in both the foster children and birth children groups. Figures 3 and 4 give a graphical representation of the comparison of the SDQ mean
scores for each subscale including the total difficulties subscale for foster children and birth children.

Figure 3: Comparison of SDQ mean scores for each subscale pre and follow-up training for foster children.

Figure 4: Comparison of SDQ mean scores for each subscale pre and follow-up training for birth children.
A 2 X 2 ANOVA test was used to test for statistically significant effects of the between subjects factor of group (foster children vs. birth children) and the within subjects factor of training. The results are summarised in Table 7.

**Table 7: A repeated measure two-way ANOVA of SDQ mean scores**

<table>
<thead>
<tr>
<th></th>
<th>Foster (F)</th>
<th>Birth (B)</th>
<th>Main effect of group</th>
<th>Main effect of training</th>
<th>Group X training interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>T1</td>
<td>T2</td>
<td>T1</td>
<td>T2</td>
<td>NS</td>
</tr>
<tr>
<td>Total Difficulty</td>
<td>16.55</td>
<td>12.82</td>
<td>10.63</td>
<td>7.63</td>
<td>NS</td>
</tr>
<tr>
<td>Emotional Symptoms</td>
<td>4.18</td>
<td>3.18</td>
<td>2.50</td>
<td>2.13</td>
<td>NS</td>
</tr>
<tr>
<td>Conduct Problems</td>
<td>4.18</td>
<td>2.73</td>
<td>1.62</td>
<td>1.00</td>
<td>*</td>
</tr>
<tr>
<td>Hyperactivity</td>
<td>4.73</td>
<td>3.45</td>
<td>4.50</td>
<td>3.13</td>
<td>NS</td>
</tr>
<tr>
<td>Peer Problems</td>
<td>3.64</td>
<td>3.36</td>
<td>1.75</td>
<td>1.50</td>
<td>*</td>
</tr>
<tr>
<td>Pro-social Behaviour</td>
<td>5.18</td>
<td>2.35</td>
<td>9.13</td>
<td>9.25</td>
<td>**</td>
</tr>
</tbody>
</table>

*p<0.05 **p<0.01

NS: Non Significant

T1 = Pre-training, T2= Follow up training at 12 weeks

The main effect of group was not significant for the total difficulty, emotional symptoms and the hyperactivity subscale scores, but was significant for conduct problems (F(1,17) = 6.856, p=0.18), peer problems (F (1,17) = 5.044, p=0.038) and pro-social behaviour (F(1,17) = 16.444, p=0.001) subscale scores. This shows that foster carers basing their responses on their foster children scored significantly higher than those basing their responses on their birth children on the conduct problems and peer problem subscales and significantly lower on the pro social subscale.

There were no significant main effects for training and no significant interaction effects.
3.5.1.4 INDIVIDUAL SDQ SCORES

FOSTER CHILDREN

When looking at individual data, Figure 5 gives a graphical representation of the individual ‘Total Difficulty’ subscale scores for foster children pre and twelve weeks following training. This shows that foster carers had perceived an increase in the scores of six individual children at the follow up time point and the scores of five individual children decreased.

![Total SDQ scores pre and follow up training for individual foster children](image)

**Figure 5**: Total SDQ scores pre and follow up training of individual foster children (F)

BIRTH CHILDREN

Figure 6 gives a graphical representation of the individual ‘Total Difficulty’ subscale scores for birth children. It appears the majority of foster carers perceived the total difficulties of their birth children had decreased however, there was a high increase for one child.
Figure 6: Total SDQ scores pre and follow up training of individual birth children (B)

3.5.1.5 CATEGORIES OF NEED

The authors of the SDQ have selected provisional bandings so that roughly 90% of children in the general population will have “low needs” (a level of problem that would not cause concern), 5% will have “some needs” (some evidence of problems that may warrant concern) and 5% will have “high needs” (a very serious level of problems) (Davis & McAuley, 2008). A chart of the direction of change in scores on strengths and difficulties subscales for individual children was created. These scores are also presented in Appendix 14 in a table format representing the levels of difficulty at the beginning of the training and the follow up stage.

FOSTER CHILDREN

Table 8 shows the categories within which the scores were placed. In Table 8 columns labelled ‘Total’ indicates the actual number of children in each category of need and the other columns give the percentages of the children in each category.
Table 8 Percentage of responses for level of need Pre and Follow up SDQ for Foster Children (n=11)

<table>
<thead>
<tr>
<th></th>
<th>Low Need Pre-Training</th>
<th>Low Need Follow Up</th>
<th>Some Need Pre-Training</th>
<th>Some Need Follow Up</th>
<th>High Need Pre-Training</th>
<th>High Need Follow Up</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>%</td>
<td>Total</td>
<td>%</td>
<td>Total</td>
<td>%</td>
</tr>
<tr>
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<td>27</td>
<td>7</td>
<td>64</td>
<td>5</td>
<td>45</td>
</tr>
<tr>
<td>Emotional Symptoms</td>
<td>5</td>
<td>45</td>
<td>6</td>
<td>55</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Conduct Problems</td>
<td>2</td>
<td>18</td>
<td>6</td>
<td>55</td>
<td>2</td>
<td>18</td>
</tr>
<tr>
<td>Hyperactivity</td>
<td>8</td>
<td>73</td>
<td>8</td>
<td>73</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Peer Problems</td>
<td>4</td>
<td>36</td>
<td>5</td>
<td>45</td>
<td>2</td>
<td>18</td>
</tr>
<tr>
<td>Pro-social Behaviour</td>
<td>2</td>
<td>18</td>
<td>4</td>
<td>36</td>
<td>1</td>
<td>9</td>
</tr>
</tbody>
</table>

*Totals may not equal 100% due to rounding.

Table 8 shows that prior to the first training session more foster children were recorded in the “high need” band than would be expected in the general population for all the five subscales. The table clearly shows that there has been a reduction in the “high need” banding for all the subscales when followed up twelve weeks after the training.

Figure 7 gives a graphical representation of the change in recorded ‘total difficulty’ subscale between pre-training to 12 weeks following training. This shows that foster carers perceived the total difficulties experienced by their foster children had reduced from “high need” and “some need” to “low need”, however 18% of children remained in the “high need” category.
Comparison of SDQ total difficulty score pre and follow-up training (Foster children)

![Comparison of SDQ total difficulty score pre and follow-up training](image)

Figure 7: Comparison of total difficulty score between Pre and Follow up Training (Foster children)

BIRTH CHILDREN

Table 9 shows the categories within which the scores for birth children were placed.

Table 9 Percentage of responses for level of need Pre and Follow up SDQ for birth children (n=8)

<table>
<thead>
<tr>
<th></th>
<th>Low Need Pre-Training</th>
<th>Low Need Follow Up</th>
<th>Some Need Pre-Training</th>
<th>Some Need Follow Up</th>
<th>High Need Pre-Training</th>
<th>High Need Follow Up</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>%</td>
<td>Total</td>
<td>%</td>
<td>Total</td>
<td>%</td>
</tr>
<tr>
<td>Total Difficulty</td>
<td>7</td>
<td>88</td>
<td>6</td>
<td>75</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Emotional Symptoms</td>
<td>7</td>
<td>88</td>
<td>6</td>
<td>75</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Conduct Problems</td>
<td>6</td>
<td>75</td>
<td>6</td>
<td>75</td>
<td>1</td>
<td>12.5</td>
</tr>
<tr>
<td>Hyperactivity</td>
<td>5</td>
<td>63</td>
<td>6</td>
<td>75</td>
<td>2</td>
<td>25</td>
</tr>
<tr>
<td>Peer Problems</td>
<td>6</td>
<td>75</td>
<td>6</td>
<td>75</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Pro-social Behaviour</td>
<td>7</td>
<td>88</td>
<td>8</td>
<td>100</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*Totals may not equal 100% due to rounding.
Table 9 shows that prior to the first training session the majority of the birth children were recorded in the “low need” category for all the five subscales and this would be expected in 90% of the general population of children. Table 9 clearly shows that there was a reduction in “low need” category post training for the emotional difficulties and total difficulties subscale. This led to an increase in the “high need” banding for the emotional difficulties subscale when followed up twelve weeks after the training. The perceived difficulties for the majority of birth children remained low however two children’s difficulties in relation to conduct and peer relationships remained the same and one child’s pro-social relationships were perceived to have improved and one child’s level of hyperactivity had improved from “some need” to “low need”.

Figure 8 gives a graphical representation of the change in recorded ‘total difficulty’ subscale between pre-training to 12 weeks following training. This shows that foster carers perceived that the total difficulties experienced by their birth children had increased from “low need” to “high need” at twelve weeks follow up training.

Figure 8: Comparison of SDQ total difficulty scores pre and follow up training (Birth children).

3.5.1.6 DISCUSSION: CHANGES IN PERCEPTION

A discussion of the results in relation to foster children and birth children is presented before exploring the results of the SDQ data as a whole in relation to
current literature. The demographic data collected in relation to the foster carers included, gender, age, ethnic origin, number of years fostering, number of children fostered, number foster children in placement and numbers of birth children in placement however, data regarding the educational and employment background of the foster carers was not collected. It is important to acknowledge that a more detailed collection of this information could have been useful when considering the generalisability of the findings. Extensive demographic data giving a more detailed and accurate description of the research sample in relation to their level of educational attainment, socio-economic status and employment history (Sifers, Puddy, Warren & Roberts, 2002) is important when assessing results and making comparisons to other literature. Unfortunately this extensive demographic data was not collected from the participants and further discussion regarding the value of reporting this information is highlighted in the limitations of this study (see Chapter 5).

It is also important to note that the sample sizes of foster children (n=11) and birth children (n=8) were small and therefore the results are limited as further investigation with a larger sample size are required in order to explore changes in mean and individual scores further.

3.5.1.7 FOSTER CHILDREN

Baseline measures at the beginning of the group programme confirm that foster carers in this study reported foster children in their care presented with a high level of need in terms of mental health difficulties (Mc Cann et al, 1996; Dimegen et al, 1999; Cole, 2005). The changes in the SDQ scores for all five subscales have been described earlier within this chapter. It is interesting to note that there was a change in a positive direction in the mean SDQ scores for all subscales and a reduction in need regarding behaviours related to emotions, conduct, hyperactivity, peer relationships and pro-social subscales in that more children presented in the “low need” category. It is important to note however that given the small sample (n=11) a comparison of the individual scores demonstrated that six of the eleven foster children had an increase total difficulties score at follow up but the majority of these children remained in the “low need” category.
The percentage of foster children who remained in the high banding for total difficulties is not an unexpected outcome over such a short period of 12 weeks, given the long and persistent history of behaviour and emotional problems of the group of children under consideration. It would be unrealistic to expect every child to change for the better and there are some patterns of change for individual children which are more negative than positive in relation to total difficulties scores. This demonstrates some general trends which may indicate the direction of change, whilst keeping in mind, that it is difficult to attribute specific changes in perceived behaviour categorically to the intervention of training. The findings are initially discussed in relation to the five subscales, before a more detailed discussion of the findings, with reference to previous studies highlighted within the literature review.

**PRO-SOCIAL SUBSCALE**

This subscale can be an indicator of a child’s potential to co-operate with others. According to researchers a child who has fewer problems in pro-social behaviours is more receptive to help in other areas (Cox & Bentovim, 2000; Aldgate et al, 2007). At the beginning of the programme 18% indicated “low need” which is a low level of problem in terms of pro-social behaviours of foster children cared for by the foster carers. This indicates that 9% of children in their care had “some need” and 73% had “high need” in this area. This is nearly seven times more than is expected for the average child. At the end of this training programme there had been some move in the right direction in terms of pro social behaviours with an increase to 36% now identified with a perceived “low level” of need in this area however, 64% remained in the “high need” category. This compares to 5% of the general population who present with “high need” in terms of pro social behaviours. This indicates that at twelve week follow up, despite some movement in a positive direction, there continued to be a high level of problems in relation to pro-social behaviours for foster children.
HYPERACTIVITY SUBSCALE

This subscale is an area of behaviour which is associated with difficulties in managing children’s behaviours regarding impulsivity and inattention. At the beginning of the programme 73% had “low need” in relation to hyperactivity with 27% having a “high need”. These scores were more encouraging as 73% scored within the range of the general population. A total of 27% of the 11 foster children still had severe difficulties in relation to the hyperactivity subscale. At the end of the programme there was an indication of a perceived change regarding these behaviours in the positive direction with 27% of foster children presenting with “some need” rather than “high need”. The level of need in the “low need” category remained the same at 73%.

EMOTIONAL SYMPTOMS SUBSCALE

Emotional symptoms scores relate to the level of anxiety presented in a child. At the beginning of the programme 45% were perceived to have a “low need” in relation to emotional difficulties with 55% having “high need”. The majority of the 11 foster children had severe difficulties in relation to the emotional symptoms subscale. At the twelve week follow up time point there was an indication of a perceived change regarding these behaviours, in a positive direction in relation to levels of anxiety, with 27% presenting with “high need” and 18% presenting with “some need” and an increase in the number of children having “low need” to 55%.

CONDUCT PROBLEM SUBSCALE

This refers to the challenging behaviour that might be expected within children. At the beginning of the programme only 18% of foster children were perceived by foster carers to fall within the “low need” category for challenging behaviour. Another 18% of the foster children cared for by foster carers attending this training presented with “some need” and over half 64% had a “high need” in relation to challenging behaviour. This again indicates a high baseline measure in relation to the conduct problem subscale. By the end of the training there was a marked difference in the level of seriousness of the perceived conduct problems presented.
by their children. There was a reduction to from 64% to 18% presenting in the “high need” category with a movement to an increase in the percentage of children in the “some need” at 27% and an increase in the “low need” category to 55% of foster children. Again it is not possible to be certain about the causal effect of the training course on the foster carer’s perception of this change in behaviour however again the changes are moving in a more positive direction in relation to conduct.

**PEER PROBLEM SUBSCALE**

Peer problems can be related to low self esteem. Within this group 36% of children presented with “low need” in relation to difficulties in this area in comparison to 90% in the general population of children. However 18% presented with “some need” in relation to difficulties with peer relationships and 45% (just under half) with severe problems in this area. Again some positive movement in this subscale occurred with a rise to 45% of “low need” and a reduction to 36% in the “high need” group with the “some need” category remaining the same at 18%.

**3.5.1.8 BIRTH CHILDREN**

Baseline measures at the beginning of the group programme confirm that foster carers in this study reported birth children in their care presented with a lower level of need in terms of mental health difficulties (Mc Cann et al, 1996; Dimegen et al, 1999; Cole, 2005). The changes in the SDQ scores for all five subscales have been described earlier within this chapter. It is interesting to note that there was a perceived change in a positive direction in the mean SDQ scores for all subscales following the training however, there was an increase in need regarding the behaviours related to emotions, in that one child moved from the “low need” category to the “high need” category. This led to an increase in the “high need” banding for emotional difficulties subscales when followed up twelve weeks after the training. The perceived difficulties for the majority of birth children remained low, however, two childrens’ difficulties in relation to conduct and peer relationships remained the same and one child’s pro-social relationships were perceived to have improved and one child’s level of hyperactivity had improved from “some need” to “low need”. It is important to note however that given the
small sample (n=8) a comparison of the individual scores demonstrated that one of
the six birth children had an increased total difficulties score at follow up but the
majority of birth childrens’ scores reduced and one remained the same.

The percentage of birth children who remained in the low banding for total
difficulties is not an unexpected outcome as they were children cared for by their
birth parents and the majority 88% presented with “low need” as would be expected
for 90% of the general population of children. One child had been identified as
having experienced mental health difficulties and again this was representative of
the general population. This demonstrates some general trends which may indicate
the direction of change, whilst keeping in mind, that it is difficult to attribute
specific changes in perceived behaviour categorically to the intervention of training.
The findings are initially discussed in relation to the five subscales, before a more
detailed discussion of the findings, with reference to previous studies highlighted
within the literature review.

**PRO SOCIAL SUBSCALE**

This subscale can be an indicator of a child’s potential to co-operate with others.
According to researchers a child who has fewer problems in pro-social behaviours is
more receptive to help in other areas (Cox & Bentovim, 2000; Aldgate et al, 2007).
At the beginning of the programme 88% indicated a “low level” of need in terms of
pro-social behaviours of birth children cared for by new foster carers participating
in this study. One child (12.5%) in their care had been identified as having “high
need” in this area prior to the training programme. At the end of this training
programme there had been some move in the right direction in terms of pro-social
behaviours with an increase to 100% now identified with a perceived “low level” of
need in this area. This indicates some movement in a positive direction at twelve
week follow up as one foster carer perceived that the “high level” pro-social
difficulties of their child had reduced to “low level” difficulties.
HYPERACTIVITY SUBSCALE

This subscale is an area of behaviour which is associated with difficulties in managing childrens’ behaviours regarding impulsivity and inattention. At the beginning of the programme 63% had “low need” in relation to hyperactivity with 25% having “some need” and 12.5% having a “high need”. Interestingly this is a higher level of need as a percentage in comparison to the foster children at 75% “low need”. At the twelve week follow up time point there was an indication of a perceived change regarding these behaviours in the positive direction with 12.5% of foster children presenting with “some need” and 12.5% presenting with “high need”. The level of need in the “low need” category increased to 75%.

EMOTIONAL SYMPTOMS SUBSCALE

Emotional symptoms scores relate to the level of anxiety in a child. At the beginning of the programme 88% were perceived to have a “low need” in relation to emotional difficulties with 12.5% having “high need”. The majority of the eight birth children had “low need” as would be expected in the relation to the emotional difficulties subscale. At the end of the programme however there was an indication of a perceived change regarding these behaviours in the negative direction in relation to levels of anxiety with 25% presenting with “high need” and a decrease in the number of children having “low need” to 75%. This might indicate that one new foster carer had more awareness of the emotional needs of his child.

CONDUCT PROBLEM SUBSCALE

This refers to the challenging behaviour that may be expected within children. At the beginning of the programme 75% of birth children were perceived by foster carers to fall within the “low need” category for challenging behaviour. Another 12.5% of the foster children cared for by foster carers attending this training presented with “some need” and 12.5% had a “high need” in relation to challenging behaviour. By the end of the training there was no difference in the level of seriousness of the perceived conduct problems presented by their children.
PEER PROBLEM SUBSCALE

Peer problems can be related to low self esteem. Within this group 75% of children presented with “low need” in relation to difficulties in this area in comparison to 90% in the general population of children. However 25% presented with “high need” in relation to difficulties with peer relationships this indicated two birth children had severe problems in this area. These difficulties remained the same at the twelve week follow up time point.

3.5.1.9 EXPLORING THE DATA

The Cochrane Systematic Review of Training for Foster Carers (Turner et al, 2007) reported upon evidence in terms of outcomes for the psychological changes in children from two American studies and four in the U.K which met the criteria for cognitive and behavioural training (Chamberlain, 1992; Barth, 1994; Minis, 2001; Pothouse, 2002; Edwards, 2002; McDonald, 2004). They found, that despite the use of numerous validated tools in measuring the behaviours presented by children in care, there remained no evidence of significant change or improvement over time in the emotional and behavioural functioning of children and young people following the training of foster carers. Turner et al (2007) discussed the reason for the lack of significant results within the systematic review of training offered to foster carers and stressed the importance of paying attention to the baseline characteristics and the severity of the difficulties displayed by children in care. It may be unrealistic to see changes in behaviour unless conducted over time. The difficulties may need a combination of support measures for foster carers and this training may be only one way of enabling access to those. The data gathered in relation to the SDQ results in this study indicate that the baseline characteristics of the foster children were higher in relation to need than the birth children. The sample size was small once divided into foster children and birth children however, it has been interesting to explore the significant differences in relation to perceived level of need of foster children and birth children. The SDQ mean scores relating to conduct, peer relationships, pro social behaviour of foster and birth children showed a significant difference in perception. There was however no significant difference in relation to the effect of
training or the interaction between training birth children and foster children when considering mean scores.

Other studies of similar training programmes have also failed to show statistically significant changes in relation to SDQ scores (Laybourne et al, 2008; Gurney Smith et al, 2010). However these more recent studies have showed more promising results; in terms of a move in the right direction in the scores and in terms of the reduction in symptoms related to the five SDQ subscales as within this study (Laybourne et al, 2008; Robson & Bryant, 2009; Gurney Smith et al, 2010; Holmes & Silver, 2010). In the present study there appeared to be a move in a positive direction in the SDQ mean scores collected for both foster children and birth children however in relation to the individual total difficulty scores for the foster children there was evidence that the scores were moving in a negative direction for six of the 11 children. This was not the case for the birth children with scores improving for all but one child at twelve weeks follow up. Laybourne et al (2008) also suggest that behaviour patterns may take longer to change and may need longer term follow ups. This certainly would be useful in relation to the SDQ results for foster children within this study, in order to discover, if the movement related to individuals’ total difficulties scores move in a negative direction or positive direction over a longer period of time. Laybourne et al (2008) also discussed the possibility of how the process of attending the course may increase foster carer’s understanding of the strengths and difficulties of the child in their care, which may then create a more informed approach when foster carers score the post training questionnaire and this may reflect in the accuracy of reported changes. This could be the case in relation to one foster carer’s perception of the emotional needs of their birth child as they moved from a “low level” of need to a “high level” of need over twelve weeks.

These studies confirm the findings within this research in that there was a general trend in the reduction in the mean scores for the four subscales relating to behavioural difficulties and an overall increase in pro-social behaviours. Aggregate scores showed a trend in the reduction in the mean scores for total difficulties which are promising however, as noted earlier, when analysed closely the total difficulties scores of individual foster children had increased for six of the young people and
therefore these results must be treated with caution in relation to the small sample size. Gurney Smith et al (2010), in their similar study also used a 12 week follow up evaluation and found positive behavioural change following the group training and they indicated a need for a longer term follow up, along with a control group in order to understand the effects of group training interventions. This is also important in relation to this study as it would have been interesting to see if the individual SDQ total difficulty scores would have remained in the “low need” category or if followed up over a longer period of time whether, for those six children whose total difficulty scores had increased, the trend would have been to rise or fall. Holmes and Silver (2010) used a training programme devised by Kim Golding (2006) which applies in a similar way to this study, attachment and social learning theories, to help foster carers develop specialist skills for supporting children with attachment difficulties. They ran this group for 18 weeks and had a mixture of participants which included foster carers and adoptive parents. Despite the longer period of follow up they also found no statistically significant increases in overall change and therefore one may debate whether foster carers need more time to put the skills they acquire into practice or whether the course itself needs to be longer. This also indicates that qualitative studies may be able to provide a more useful indication of change.

Laybourne et al, (2008) also discuss how early parenting training programmes developed for birth parents such as Webster-Stratton (1997) (a programme devised for birth parents of children displaying challenging behaviour) did not appear to have the same benefits for foster carers as the baseline characteristics are higher for children in care in relation to strengths and difficulties and parenting approaches need to be varied. Many of the mental health training programmes offered to foster carers use combined approaches to parenting including social learning theory, attachment theory and the principles of PACE (Hughes, 1997) and the use of narratives (Golding & Picken, 2004; Warman et al, 2006; Layborune et al, 2008; Gurney Smith et al, 2010; Holmes & Silver, 2010). Within this study there was an opportunity to compare the change in perception of foster carers in relation to both foster children and birth children, however unfortunately the sample size was too small to make comparisons of statistically significant change in scores over time.
What is also interesting to note is the length of the training courses. Our findings show similar positive changes in the direction of strengths and difficulties within the five subscales experienced by children in their care after a much shorter two day training intervention in comparison to many of the above courses which offered longer term input. This may be due to chance but adds to the debate regarding the amount of training needed for foster carers, the optimum time for training and the lack of measurable differences whatever the length of the training. According to Golding and Picken (2004), successful training groups for biological parents usually continue for a 10 week period. Of the six training programmes systematically reviewed by Turner and MacDonald (2007) only one offered a similar two day training programme which was followed after four weeks. The other training evaluated ranged from 10 three hour sessions, to 12 two hour sessions. The more recent training programmes (Golding & Picken, 2004; Warman et al, 2006; Herbert & Wookey, 2007; Laybourne, 2008; Robson & Bryant, 2009; Gurney Smith et al, 2010; Holmes & Silver, 2010) discussed in this study taught for between 20 and 45 hours. Interestingly the majority of the shorter training groups did have a follow up session ranging from three hours to six hours over one day. This may be important to introduce in the future and may be an interesting area to research further.

3.5.2 THE FAMILY IMPACT QUESTIONNAIRE

3.5.2.1 ANALYSIS

The Family Impact questionnaire was scored manually with pre and follow up data collected. This standardised questionnaire was used in order to consider possible changes of the perceived impact of the child’s behaviour on the family.

Using SPSS, a descriptive numeric analysis of the questionnaires was performed to calculate the mean and explore central tendencies and measures of dispersion including the variance and standard variation. Nineteen of the foster carers completed the FIQ at the two time points based upon their perceptions of foster children (n=11) and birth children (n=8).
3.5.2.2 RESULTS

The FIQ measured the perceived impact a child has upon the parent along six areas of family functioning. An increase in the scores relates to a more negative impact upon family functioning except for the subscale related to positive feelings.

The marriage and the sibling subscales were only applicable to 11 of the 19 foster carers. As with the SDQ data, the decision was made to present the FIQ data separately for foster children and birth children.

3.5.2.3 MEAN SCORES

The FIQ scores for each of the subscales were analysed to see whether there were any differences in the mean scores for each of the six subscales, pre training and twelve weeks following training, in order to identify if the perceived impact of fostering foster children (Table 10) and parenting birth children (Table 11) had changed over time.

Table 10: FIQ comparison of means for Foster Children at pre training and follow up (n=11)

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Pre Training</th>
<th>Follow Up Training</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std.Dev</td>
</tr>
<tr>
<td>Negative feelings</td>
<td>13.64</td>
<td>1.62</td>
</tr>
<tr>
<td>Positive Feelings</td>
<td>14.82</td>
<td>3.99</td>
</tr>
<tr>
<td>Social Life</td>
<td>11.45</td>
<td>1.91</td>
</tr>
<tr>
<td>Finances</td>
<td>10.18</td>
<td>4.75</td>
</tr>
<tr>
<td>Marriage</td>
<td>12.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Siblings</td>
<td>15.25</td>
<td>3.59</td>
</tr>
</tbody>
</table>

It can be seen in Table 10 that in relation to fostering foster children there has been a positive change with an improvement in the mean scores for those subscales related to positive feelings, social life, finances and siblings. Conversely there was a negative change with mean scores increasing in the subscales related to negative feelings and marriage. This is visually represented in Figure 9.
Comparison of FIQ mean scores pre and follow-up training (Foster Children)

The questionnaires were analysed to produce mean scores for each of the six subscales for birth children and are presented in Table 11.

Table 11: FIQ comparison of means for Birth children at pre training and follow up (n=8)

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Pre Training</th>
<th></th>
<th>Follow Up Training</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std.Dev</td>
<td>Mean</td>
<td>Std.Dev</td>
</tr>
<tr>
<td>Negative Feelings</td>
<td>15.88</td>
<td>1.95</td>
<td>15.75</td>
<td>2.05</td>
</tr>
<tr>
<td>Positive Feelings</td>
<td>21.88</td>
<td>2.29</td>
<td>20.50</td>
<td>1.30</td>
</tr>
<tr>
<td>Social Life</td>
<td>14.00</td>
<td>10.52</td>
<td>10.13</td>
<td>0.35</td>
</tr>
<tr>
<td>Finances</td>
<td>9.87</td>
<td>3.48</td>
<td>9.63</td>
<td>3.15</td>
</tr>
<tr>
<td>Marriage</td>
<td>13.63</td>
<td>2.56</td>
<td>13.00</td>
<td>2.61</td>
</tr>
<tr>
<td>Siblings</td>
<td>12.71</td>
<td>2.21</td>
<td>13.29</td>
<td>2.87</td>
</tr>
</tbody>
</table>

It can be seen that in relation to parenting birth children there has been a positive change with improvement in the mean scores for those subscales related to negative feelings, social life, finances and marriage. Conversely there was a negative change with mean scores decreasing in the subscales related to positive feelings and increasing in the subscales related to siblings as presented visually in Figure 10.
A 2 X 2 ANOVA test was used to test for statistically significant effects of the between subjects factor of group (foster children vs. birth children) and the within subjects factor of training. The results are summarised in Table 12.

Table 12: A repeated measure two-way ANOVA of FIQ mean scores

<table>
<thead>
<tr>
<th></th>
<th>Foster (F)</th>
<th>Birth (B)</th>
<th>Main effect of group</th>
<th>Main effect of training</th>
<th>Group X training interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>T1  T2</td>
<td>T1  T2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative Feelings</td>
<td>13.64  14.00</td>
<td>15.88  15.75</td>
<td>*</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td>Positive Feelings</td>
<td>14.82  16.55</td>
<td>21.88  20.50</td>
<td>**</td>
<td>NS</td>
<td>*</td>
</tr>
<tr>
<td>Social Life</td>
<td>11.45  11.36</td>
<td>14.00  10.13</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td>Finances</td>
<td>10.18  10.09</td>
<td>9.87  9.63</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td>Marriage</td>
<td>12.00  13.67</td>
<td>13.63  13.00</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td>Siblings</td>
<td>15.25  14.50</td>
<td>12.71  13.29</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
</tr>
</tbody>
</table>

*p<0.05  **p<0.01

NS: Non Significant

T1 = Pre-training, T2= Follow up training at 12 weeks
The main effect of group was not significant for social life, finances, marriage and siblings subscale scores, but was significant for negative feelings (F(1,17) = 6.010, p=0.025) and positive feelings (F (1,17) = 14.412, p=0.001) subscale scores. This shows that foster carers basing their responses on foster children scored significantly lower than those basing their responses on their birth children on the negative and positive subscales.

There were no significant main effects for training in any of the six subscales. This shows that training did not have a statistically significant effect upon the mean scores pre and post training.

There was a significant interaction effect on the FIQ positive feelings subscale (F (1, 17) =6.108, p=0.24) which shows that training had a statistically significant different effect in relation to positive feelings towards the child for the foster and birth children groups. This interaction is illustrated in Figure 11 and shows that the foster carers basing their responses on their foster children reported an increase in positive feelings post training and foster carers basing their responses on their birth children reported a decrease in positive feelings post training.

* 1.00 Blue line: Birth Children
* 2.00 Green line: Foster Children

Figure 11: A significant interaction FIQ positive feelings subscale for birth and foster children.
No other subscales showed significant interaction effects.

3.5.2.4 DISCUSSION: FAMILY FUNCTIONING

Again it is important to note that the sample sizes of foster children (n=11) and birth children (n=8) were small and therefore the results are limited as further investigation with a larger sample size are required in order to explore changes in mean and individual scores further.

FOSTER CHILDREN

An interesting finding in relation to this questionnaire is the foster carers’ perception of the impact that their foster child had upon their positive and negative feelings, marital relationship, finances, social life, siblings and therefore upon family functioning in all areas. This questionnaire developed by Donenberg and Baker (1993) has not been previously used in relation to training groups for foster carers but in relation to training for birth parents of pre-school children and therefore it is not possible to make direct comparisons with this previous study.

In terms of baseline scores, foster carers scored foster children as presenting with lower levels of impact and stress in areas related to negative feelings, social life and marriage than foster carers who scored FIQ against their birth children. This reached a statistically significant level for negative feelings. This was a surprising finding given, as discussed earlier in this study; the baseline characteristics in relation to mental health difficulties for children in care are higher than in the general population (Meltzer, 2003). In addition in terms of the baseline scores, foster carers scored foster children as presenting with higher levels of impact and stress in relation to positive feelings, finances and siblings than foster carers who scored FIQ against their birth children. This also reached a statistically significant level for positive feelings. This again would be interesting to explore further in relation to placement stability and family functioning. These findings suggest that this could be a useful tool to use in future research, in order to explore and gain more understanding of the multiple impacts upon the whole family.
Also the scores for negative and positive feelings were at a similar level suggesting that foster carers of foster children experience a combination of both negative and positive feelings in relation to fostering. This may be linked, as highlighted by Donenberg and Baker (1993), with the level of support they experience and the level of services available to a family. Donenberg and Baker (1993) conclude that when children in their study were diagnosed with Autism they had access to special programmes early on, however for parents of children presenting with externalising problems, their access to support did not happen until they were older. Coping with children who present with difficulties that require close supervision and control may negatively or positively bias their parent’s perceptions of their behaviours.

The results at the twelve week follow up training point identified that foster carers of foster children perceived the mean scores for four of the six subscales had improved and this indicated a move in a positive direction. Conversely there was a negative change with mean scores increasing in the subscales related to negative feelings and marriage. However these changes did not reach statistical significance which shows training did not have a significant effect on the mean pre and post training scores.

**BIRTH CHILDREN**

In terms of baseline scores, foster carers scored their birth children as having a higher impact upon their negative feelings, their social life and their marriage however; they experienced more positive feelings about their own birth child pre-training and felt they had less of an impact upon their finances and siblings. This would be interesting to explore further in relation to how this perception might change for foster carers once they have a foster child in placement, in relation to placement stability and the overall impact of children coming into care upon family functioning.

The results at the twelve week follow up training point for foster carers in relation to their birth children also identified that the mean scores for four of the six subscales had improved slightly and again this indicated a move in a positive direction. However, it is important to note that these changes did not reach
statistical significance, which shows training did not have a significant effect on the mean pre and post training scores.

This shows a trend in the scores in that there is a movement in the right direction in relation to four areas for both groups. The implications of such findings may be useful in relation to a greater understanding of the relationship between foster caring and impact upon family functioning. Warman et al (2006) discussed the impact of training for foster carers highlighting the need for trainers to consider not merely educating but providing a range of opportunities for foster families to support each other through challenging times.

In addition, there was a significant interaction effect on the FIQ positive feelings subscales in that the effects of training increased positive feelings for foster carers of foster children, however, the training had the opposite effect for foster carers basing their responses on birth children in that the scores decreased, indicating their positive feelings towards their birth children reduced post training. Again further exploration of this interaction effect would be useful with a larger sample size in future studies.

The Parenting Stress Index (PSI) questionnaire has been used in other studies to identify the impact of increased levels of stress on foster carers (Warman et al, 2006; Laybourne et al, 2008). Laybourne et al (2008) found that foster carers’ were experiencing more stress than 99% of the general population of parents and in addition they found that whilst overall levels of stress where still high there had been a reduction in stress experienced by foster carers post training to a statistically significant level (Laybourne et al, 2008). Laybourne et al (2008) speculated that foster carers’ increased understanding of their child’s behaviour was helpful in reducing the blame they previously attributed on themselves for the difficulties presented by the child in their care. Given this, it may also be useful in future training programmes to feed back FIQ scores to foster carers pre and post training to consider the change in scores in relation to impact and stress upon family functioning. The reduction in self reported stress in this study is explored further in the qualitative data.
3.5.3 THE KNOWLEDGE QUESTIONNAIRE

3.5.3.1 ANALYSIS

The measures have been quantitatively analysed using a Statistical Package for the Social Sciences (SPSS). Using SPSS a descriptive analysis of the questionnaires was performed to describe the mean scores for knowledge gained from the training. Due to the sample size being small the whole cohort was analysed together. A one way ANOVA was performed using SPSS for the three time points. A further paired sample T test was carried out to examine whether any of the differences in the means were statistically different over time between the time lines of pre, post or follow up training.

3.5.3.2 RESULTS

The knowledge questionnaire consists of six questions, four of which were multiple choice, one an open question and one question had two parts that required recall of information taught on the two day training. These questions, as noted in the methodology, had been devised by the group facilitators and extensively piloted. The knowledge questionnaire aimed to assess the respondent’s knowledge based upon the content of the group training through the pre, post and follow up interviews. Twenty foster carers completed the pre, post and follow up questionnaire and were given a score if requested at the beginning of the next interview.

Figure 12 shows the comparison of mean knowledge scores pre, post and 12 week follow up. In Figure 12 it is evident that respondents demonstrated increased knowledge following the parent training group over a twelve week time frame.
A repeated measures ANOVA was performed on this data and this is displayed in Table 13. This was a one-way general linear model which used repeated measures to produce descriptive statistics. The mean knowledge score was 3.33 pre training, 5.11 at post training and 4.83 at twelve week follow up training. The one way ANOVA shows there was a significant difference in the scores over time, $F(2, 34) = 8.602$, $p=0.001$.

**Table 13: Paired Samples Test**

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>T</th>
<th>df</th>
<th>Sig.(2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1: Quiz 1- Quiz 2</td>
<td>-4.811</td>
<td>19</td>
<td>.000</td>
</tr>
<tr>
<td>Pair 2: Quiz 1- Quiz 3</td>
<td>-3.768</td>
<td>17</td>
<td>.002</td>
</tr>
<tr>
<td>Pair 3: Quiz 2-Quiz 3</td>
<td>.497</td>
<td>17</td>
<td>.626</td>
</tr>
</tbody>
</table>

Repeated measures t-tests showed that the foster carers scored significantly lower on the pre training test than they did on the post training test and the third follow up training tests ( Pre training test 1 versus post training test 2 there was a significant difference in knowledge: $t(19)=4.81$, $p<0.001$; Pre training test 1 versus follow up training test 3 there was also a significant difference in knowledge: $t(17)=3.77$, $p<0.001$. 

Figure 12: Comparison of mean knowledge scores pre, post and follow up training.
p<0.002), but there was no significant difference in knowledge between post training test 2 and follow up training test 3; t(17)=0.497, p=.626.

### 3.5.3.3 DISCUSSION: SUSTAINING KNOWLEDGE OVER TIME

Results showed that the foster carers demonstrated increased knowledge following the training programme over a twelve week time frame. The mean knowledge score was 3.33 pre training, 5.11 at post training and 4.83 at twelve week follow up training. This shows a slight reduction in the follow up group, however repeated measures t-tests showed that the foster carers scored significantly lower on the pre training test than they did on the post training test and the third follow up training tests. The one way ANOVA showed there was a significant increase in their scores which was retained over time. This supports one of the main aims of the programme which was to increase knowledge of mental health issues for foster carers. It may be useful to repeat this questionnaire over a longer period of time in future research in order to consider any reduction in retained knowledge, which may indicate, whether follow up or refresher training programmes are required.

Golding and Picken (2004) also used a self devised knowledge questionnaire to show an increase in knowledge scores and showed a large effect size for improvement in the scores. MacDonald and Turner (2005) found that participants in their training groups when compared to a control group scored significantly higher in their knowledge scores post training. Herbert and Wookey (2007) measured knowledge of basic behavioural principles though the use of a 50 item multiple choice tool ‘The Knowledge of Behavioural Principles as Applied to Children’ (KBPAC), before and after the training programme and found results which demonstrated scores that were significantly higher post the cognitive behavioural based training programme than their control group. Within their study they considered the relationship between knowledge and confidence and demonstrated that by increasing foster carers’ behaviour management skills through knowledge, small changes in the children’s behaviour were generally attributed to the acquisition of new skills by the foster carers. They recommended that foster carers were given sufficient opportunities for further supervision and support to develop
their knowledge, understanding and skills further. This link between knowledge, confidence and skills will be explored further within the qualitative data.

3.5.4 LOCAL AUTHORITY SATISFACTION QUESTIONNAIRE

3.5.4.1 ANALYSIS

A summary of the individual foster carer scores are provided in Table 8. All the comments recorded in relation to the open ended questions are quantified, using a content analysis approach. The scores in the four subscales are described. Cohort One refers to all foster carers training in May 2009 (n=14) and Cohort Two (n=7) refers to all foster carers who were trained in November 2009.

3.5.4.2 RESULTS

All twenty-one of the foster carers completed the evaluation questionnaire. The majority of the foster carers found that attending the group was very helpful and satisfaction levels were very high. Within the combined cohorts (n=21) 100% allocated the top two scores (three & four) for 10 of the 11 rated questions which are represented in Table 14. In Cohort One, the question relating to information provided by the learning and development lead led to mixed responses, however by the time Cohort Two foster carers were trained, this had been addressed with 100% rating high satisfaction.

The open ended questions relating to the most useful elements of the course identified that 10 foster carers within the two cohorts felt that everything was useful, four foster carers found listening to others useful, six felt learning new information was helpful and one foster carer found the video footage most helpful. In terms of the least useful question, 20 foster carers identified nothing was least useful and one foster carer highlighted the format of the day needed changing to include more group activities. In relation to the question regarding a change in practice as a foster carer, eight felt they had gained new knowledge about caring for children, two had gained awareness of the mental health needs of their children, four foster carers would gain more support from their peer group and seven made no comment. In
total 20 out of the 21 foster carers did not feel the training could be improved. However, one foster carer felt the structure of the day could be improved to include more breaks.

Table 14: Satisfaction Questionnaire: Foster carer responses for each Training Cohort (Cohort 1: May 2009, Cohort 2: November 2009).

<table>
<thead>
<tr>
<th>Scores: 1:Poor to 4:Very Good</th>
<th>Cohort 1 (n=14)</th>
<th>Cohort 2 (n=7)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Were the course objectives met?</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Was the course at the right level for you?</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Did the course content reflect good, non-discriminatory practice?</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Which parts of the course were most useful?</td>
<td>Everything (n=10), Brain (n=2), Listening to others (n=4), New information (n=4), Video (n=1)</td>
<td></td>
</tr>
<tr>
<td>What was least useful?</td>
<td>Nothing (n=20), Format (n=1)</td>
<td></td>
</tr>
<tr>
<td>Did you receive course information in time?</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Standard of the presentation and facilitation?</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Was the course delivered in a clear and understandable format?</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Trainer’s pace of the course?</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Relevance of course material and handouts?</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Size and composition of the group?</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Were you able to raise issues important for your learning?</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Were the practical arrangements adequate?</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>In what ways do you intend to develop or change your caring as a result of your learning?</td>
<td>Use knowledge (n=8), Awareness gained (n=2), Access more support (n=4), No comment (n=7)</td>
<td></td>
</tr>
<tr>
<td>If you were the training officer designing the course, how would you improve it?</td>
<td>Training could not be improved (n=20), Format (n=1)</td>
<td></td>
</tr>
</tbody>
</table>
3.5.4.3 DISCUSSION: HIGH SATISFACTION ACHIEVED

This is a satisfaction questionnaire which was devised by the local City Council and was administered by the Learning and Development Officer immediately after the training is completed. As mentioned earlier, this is usually the only evaluation that has been analysed in the past to rate various areas of the training. In line with findings from previous studies, the majority of foster carers positively evaluated the group training in terms of their satisfaction with regard to the course objectives, content, format, practical arrangements, facilitation and relevance to their role as foster carers (Gurney Smith et al, 2010; Holmes & Silver, 2010; Golding & Picken, 2004; Warman et al, 2006; Herbert & Wookey, 2007; Laybourne et al, 2008; Pithouse et al 2001; Minnis & Devine 2001; Holmes & Silver 2010; Robson & Bryant 2009; Rose at al, 2009). 100% of foster carers in both cohorts rated the top two scores (3= good & 4= very good). In the original satisfaction evaluations that the CAMHS LAC services used to evaluate their training there was also high satisfaction reported. The results from the two cohorts were described separately in order to observe how useful these evaluation forms can be in addressing concerns from group to group. The feedback from Cohort One in relation to course information was addressed directly in the training and led to a reported 100% satisfaction level during the next training programme for Cohort Two.

Findings from the open ended questions suggest there was minimal feedback about how to change the course except for the view expressed by one foster carer to have more group work on the first day and less theory. It was reassuring to find that the need for a change in format was picked up within the satisfaction questionnaire in that when a participant is dissatisfied they are able to raise this in the simple evaluative satisfaction questionnaire.

The satisfaction forms identified that training had delivered the curriculum as planned but did not reveal the detailed and rich description needed to illuminate the experience of attending the training programme and shed light upon the journey they encountered.
3.6 CONCLUSION

In summary, the results from the four questionnaires have been reported and discussed in relation to the current literature. These results support the need for a combination of evidence based data gathering when evaluating a training programme. As a result of analysing the foster children (n=11) and the birth children (n=8) separately it is important to note the sample sizes were very small and therefore the results are limited and further investigations with a larger sample are required. The next chapter uses qualitative methodology, which may provide, more understanding of the experiences and needs of foster carers.