Evaluation of ParentChild+ in England, 2019-2025

Final report

(Updated: February 2026)

Dr Daniel Sutherland and Dr Samantha Flynn

Centre for Research in Intellectual and Developmental Disabilities (CIDD)

University of Warwick

Contents

Report Headlines

1. For the Ages and Stages Questionnaire-3 (ASQ3) communication scores, there were moderate to large, statistically significant increases when including all children or children without Special Educational Needs or Disabilities (SEND) only, but not a significant change when including children with SEND only.
2. Of the 110 children who had Early Years Foundation Stage profiling data available for the 2024/25 academic year, 47.3% achieved a good level of development in the Communication and Language prime area of learning. For the 62 children without SEND, 71% achieved a good level of development, compared with only 16.7% of children with SEND.
3. For ASQ3 personal-social scores, there was a moderate and statistically significant increase when including children without SEND only, but not a significant change when including all children or children with SEND only.
4. Of the 110 children who had Early Years Foundation Stage profiling data available for the 2024/25 academic year, 47.3% achieved a good level of development in the Personal, Social, and Emotional Development prime area of learning. For the 62 children without SEND, 71% achieved a good level of development, compared with only 22.9% of children with SEND.
5. Analyses of Being A Parent (BAP) scores indicate that there were small to medium increases in parents' sense of competence after taking part in ParentChild+. However, there were large amounts of missing outcome data.
6. Around half of all parents showed an increase in BAP scores that met or exceeded the evaluation target of 5%.
7. There were large increases in Parent And Child Together (PACT) scores throughout the programme for children with and without SEND, indicating an increase in the frequency of positive parent-child interactions.
8. At baseline, 4% of children without SEND and 4.94% of children with SEND attained PACT scores greater than or equal to the target score of 3, compared with 93.41% of children without SEND and 77.27% of children with SEND at the programme's end.
9. There were large increases in Child Behaviour Traits (CBT) scores throughout the programme for children with and without SEND, indicating improvement in children's behaviour.
10. At baseline, 0% of children without SEND and children with SEND attained CBT scores greater than or equal to the target score of 3, compared with 89.89% of children without SEND and 22.39% of children with SEND at endpoint.
11. Interviewed parents generally spoke very positively about the programme and identified a range of positive effects on the language and social development of their child, as well as on their own parenting and wellbeing.
12. Other stakeholders (Home Visitors, Early Years staff, and the Area Co-ordinator) corroborated these reports from parents and identified similar positive effects on child development, parenting, and parental wellbeing.
13. Home Visitors delivering ParentChild+ reported being passionate about their role, well-trained, and well-supported.
14. Parents generally reported having good relationships with Home Visitors and thought they were skilled at interacting with their children. However, parents thought that turnover in Home Visitors could sometimes be disruptive for their children.
15. Parents reported being grateful for the toys and books they received. The items were generally viewed very positively, but some issues were identified, such as toys sometimes being developmentally inappropriate for a child's age.

16. Efforts were made to ensure that the programme was culturally sensitive and acceptable. This included recruiting Home Visitors who spoke widely spoken languages in the area, and including culturally diverse toys and stories.
17. COVID-19 restrictions, and the legacy of these, meant that many families completed some or most of the programme in online sessions over video calls with Home Visitors. Parents and Home Visitors generally described this as very challenging due to difficulties engaging young children remotely.
18. The area-co-ordinator identified evaluation challenges such as difficulty obtaining ASQs from health visitors, an issue which was compounded by COVID-19 disruption, and challenges obtaining BAPs from parents.

1 Background

ParentChild+ (also known as the Parent Child Home Programme) is a two-year programme for children at risk of educational disadvantage which aims to increase children's cognitive and emotional development and promote parents' verbal interaction and play (Levenstein et al., 2002). The programme consists of 96 sessions in which a Home Visitor works with families. Each week, the Home Visitor provides a new toy or book to the family and aims to model engaging play, verbal interaction, and other positive parenting techniques. Through supporting parent-child verbal interaction and play, the programme aims to scaffold children's linguistic and socio-emotional development and reduce disparities between children at risk of educational disadvantage and their peers.

This report evaluates the delivery and outcomes of ParentChild+. The programme was delivered by the charity Family Lives to families living in the London boroughs of Westminster and Kensington and Chelsea.

It is important to note that some of the data presented in this report were collected during the COVID-19 pandemic. ParentChild+ continued to be delivered to families throughout the pandemic, but delivery moved online during the lockdowns, with some sessions in between being undertaken in open public spaces (e.g., local parks). The pandemic may, therefore, have impacted elements of the data collection process (e.g., fewer returned questionnaires), as well as the way families received and responded to the programme delivery.

1.1 Aims of the evaluation

The aim of this evaluation is to analyse and determine the full impact of the ParentChild+ intervention.

1.2 Research questions

There are three research questions:

Has receipt of the ParentChild+ programme:

1. Improved the speech and language skills of the child to the expected level of development?
2. Improved social and personal skills of the child to the expected level of development?
3. Increased parental self-efficacy/parent-child interaction?

These questions will provide information on the effectiveness of this intervention, the transferability of the ParentChild+ programme within a UK context, and provide improved

local data on this specific cohort of children and parents in Kensington, Chelsea and Westminster.

2 Methods

2.1 Participants

Participants were families living in Westminster or the Royal Borough of Kensington and Chelsea. These families were typically referred to Family Lives by Health Visitors or other local health, education, or social care professionals following the identification of delays in children's development or support needs for the parents. In total, Family Lives completed an initial visit with 216 families, 166 families completed the first cycle of 46 visits of the ParentChild+ programme, and 138 also completed the second cycle of a further 46 visits.

2.2 Qualitative data

The qualitative data were collected through telephone interviews between 2020 and 2023. These consisted of 42 interviews with parents completing the programme, 10 interviews with home visitors delivering the programme, 9 interviews with Early Years managers or staff, and two interviews with the Area Co-ordinator for the programme. These telephone interviews were recorded, with the informed consent of the interviewees, and the recordings were fully transcribed for analysis. The interviews were carried out using a semi-structured interview schedule, designed to gather data on key issues relating to the pilot, while allowing interviewees to discuss additional points.

2.3 Quantitative data

2.3.1 Indicator 1: Speech and Language Skills

The **Ages and Stages Questionnaire 3 (ASQ3)** is used to measure children's development, and is collected by health visitors at two time points per cohort: baseline and endpoint (the end of the programme). It is used in some evaluations of ParentChild+. This indicator will be informed by the **Communication section** of the ASQ3, determining whether the skills appear to be on schedule. Some children appeared to have completed multiple ASQ3 assessments. Where this was the case, the most recent assessment was used for this report.

The **Early Years Foundation Stage (EYFS) profiling** was completed by schools at the end of Reception year for children who finished their Reception year in July 2025. These data were shared with the evaluators, enabling assessment of whether or not each child who had received the ParentChild+ programme scored a good level of development, assessing specifically the "**Communication and Language**" prime area of learning.

2.3.2 Indicator 2: Social and Personal Skills

The **Ages and Stages Questionnaire 3 (ASQ3)** is used to measure children's development, and is collected by health visitors at two time points per cohort: baseline and endpoint (the end of the programme). It is used in some evaluations of ParentChild+. This indicator will be informed by the **Personal-Social section** of the ASQ3, determining whether the skills appear to be on schedule. Where this was the case, the most recent assessment was used for this report.

The **EYFS profiling** was completed by schools at the end of Reception year for children who finished their Reception year in July 2025. These data were shared with the evaluators, informing evaluators whether each child scored a good level of development, assessing specifically the "**Personal, Social, and Emotional Development**" prime area of learning.

2.3.3 Indicator 3: Parental self-efficacy

The **Being a Parent (BAP) scale** (Johnston & Mash, 1989), also sometimes described in the literature as the Parenting Sense of Competence (PSOC) scale, consists of 17 items. It is completed by one or both parents separately.

This measure explores three factors thought to relate to parents' sense of competence (Gilmore & Cuskelly, 2009; Johnston & Mash, 1989); all of which are measured on a six-point Likert scale ranging from strongly agree (1) to strongly disagree (6); although a number of these items are reverse-scored. These factors are: a seven-item measure of Self-Efficacy (indicating the extent to which parents feel they are fulfilling their role), a seven-item measure of Satisfaction (their enjoyment with parenting), and a three-item measure of Interest (how interested they are in their role as a parent). For the purposes of this evaluation, and after consultations between the evaluators (University of Warwick) and Family Lives, it was decided that the Interest sub-domain would not be included in this evaluation, leaving only the seven-item measure of Self-Efficacy and the seven-item measure of satisfaction.

The BAP questionnaire is completed very early in the programme (after the third home visit) and is repeated at the end of the programme. This indicator will analyse whether the endpoint self-efficacy, satisfaction, and overall scores are greater at the endpoint than at baseline, and whether there is at least a 5% improvement (evaluation target).

2.3.4 Other collected measures

The **Parent and Child Together (PACT) questionnaire** is a 20-item validated measure, used in all ParentChild+ evaluations, that examines the frequency of positive parent-child interactions. It will measure the impact over time on parents' capacity to support their child. The measure encompasses four factors: communication, affection, consistency, and responsiveness. This measure is completed by ParentChild+ home visitors at three time points per cohort: baseline, midpoint, and endpoint.

The **Child Behaviour Traits (CBT) questionnaire** is a 20-item measure that captures home visitor ratings of children's behaviour. There are five factors within this measure: independence, social cooperation, task orientation, cognitive ability, and emotional stability. It is collected by ParentChild+ home visitors at three time points per cohort: baseline, midpoint, and endpoint. It is used in all evaluations of ParentChild+.

2.3.5 Quantitative analysis

Quantitative data were analysed using the software R version 4.3.0 (R Core Team, 2023). Outcomes are reported descriptively, and where sample size permits, formal statistical analyses are also reported.

3 Evaluation results

3.1 Indicator 1: Speech and Language Skills

3.1.1 Ages and Stages Questionnaire 3 (Communication domain)

ASQ3 data were available for 63 children at baseline and 84 children at endpoint. Table 1 and Figure 1 summarise the changes in ASQ3 communication scores for all children, children without SEND (Special Educational Needs and/or Disabilities), and children with SEND. There were increases in the average ASQ3 scores for all three groups.

Paired-sample t-tests suggested that there were statistically significant increases in ASQ3 communication scores for all children ($t(62)=5.93$, $p<0.001$, Cohen's $d=0.75$(95% CI=0.47, 1.04)) and children without SEND ($t(39)=6.15$, $p<0.001$, Cohen's $d=1.15$(95% CI=0.67, 1.63)), but there was not a significant increase in ASQ communication scores for children with SEND ($t(22)=1.99$, $p=0.059$, Cohen's $d=0.45$(95% CI=-0.03, 0.93)). However, this lack of a significant effect for children with SEND was likely partially due to the small number of children with paired data from both timepoints (only 23 children).

In summary, there is evidence of a large increase in ASQ3 communication scores for children without SEND after taking part in the programme. Scores for children with SEND also, on average, increased. However, the small number of children with SEND with data at baseline means that there is greater uncertainty about the effect of the programme for this group.

Table 1

ASQ communication scores before and after completing the ParentChild+ programme

ASQ communication	Baseline (n=63)	Endpoint (n=84)
All children (n=84)	27.62(SD=19.96)	42.27(SD=18.44)
Children without SEND (n=48)	33.50(SD=19.12)	51.15(SD=11.17)
Children with SEND (n=36)	17.39(SD=17.38)	30.42(SD=19.65)

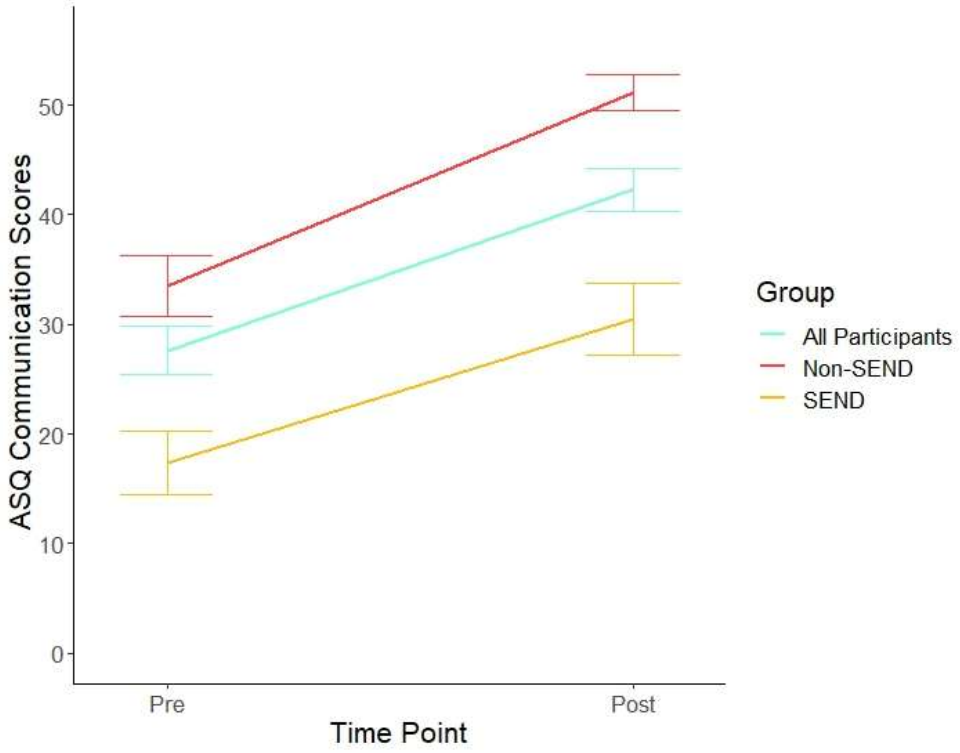

Figure 1

Plot illustrating the change in ASQ3 communication scores between baseline and endpoint for all children, children without SEND only, and children with SEND only. Error bars show standard error - a measure of the precision of an estimate, where narrower bars indicate more precision.

Due to the large proportion of children who took part in the ParentChild+ programme who had SEND, it was decided in discussions between Family Lives and the local authorities that the ASQ3 may not be the most appropriate measure of development in this area for children with SEND. They therefore agreed that, for children with SEND, CBT scores would be used as a measure of children's progress instead. Of children without SEND for whom data were available, 88.37% reached the evaluation target on the ASQ3 communication scale. For children with SEND, the CBT evaluation target threshold was reached for 79.41% of children (see section 3.5.2). The evaluation target for communication was therefore reached for 84.42% of children in total.

3.1.2 Early Years Foundation Stage profiling (Communication and Language)

EYFS profiling data were available for 110 children who finished their Reception year of school in July 2025. Of these 110 children, 52 (47.3%) achieved a good level of development in the Communication and Language prime area of learning. Of the 110 children for whom EYFS profiling data were available, 48 had SEND, and the majority of these 48 children (83.3%) did **not** achieve a good level of development in this prime area of learning. However, the majority of the 62 children without SEND (71%) did achieve a good level of development in this prime area of learning.

Table 2 presents the data about whether children achieved a good level of development in the Communication and Language prime area of learning, split between children with and without SEND.

Table 2

Children with and without SEND who achieved a good level of development in the EYFS Communication and Language prime area of learning

EYFS Communication and Language Prime Area of Learning	Achieved a good level of development	Did not achieve a good level of development
All children (n=110)	52 (47.3%)	58 (52.7%)
Children without SEND (n=62)	44 (71%)	18 (29%)
Children with SEND (n=48)	8 (16.7%)	40 (83.3%)

3.2 Indicator 2: Social and Personal Skills

3.2.1 Ages and Stages Questionnaire 3 (Personal-Social domain)

Table 3 and Figure 2 summarise the changes in ASQ3 personal-social scores for all children, children without SEND, and children with SEND. There were substantial increases in average scores for children without SEND, and a modest increase for children with SEND.

Paired-sample t-tests suggested that there was not a statistically significant increase in ASQ3 personal-social scores when including all children (t(62)=1.73, p=0.09, Cohen's d=0.22(95% CI=-0.03, 0.48)), or children with SEND only (t(22)=-0.43, p=0.670, Cohen's d=-0.10(95% CI-0.57, 0.37)). However, there was a moderate, statistically significant increase in ASQ3 personal-social scores when only including data from children without SEND (t(39)=2.84, p=0.007, Cohen's d=0.56(95% CI =0.14, 0.98)).

In summary, there is evidence of a moderate increase in ASQ3 social and personal skills for children without SEND. However, there is no evidence of a change for children with SEND.

Table 3

ASQ social and personal skills scores before and after completing the ParentChild+ programme

ASQ social and personal	Baseline (n=63)	Endpoint (n=84)
All children (n=84)	39.13(SD=15.60)	43.99(SD=17.54)
Children without SEND (n=48)	44.25(SD=13.89)	51.67(SD=10.39)
Children with SEND (n=36)	30.22(SD=14.58)	33.75(SD=19.91)

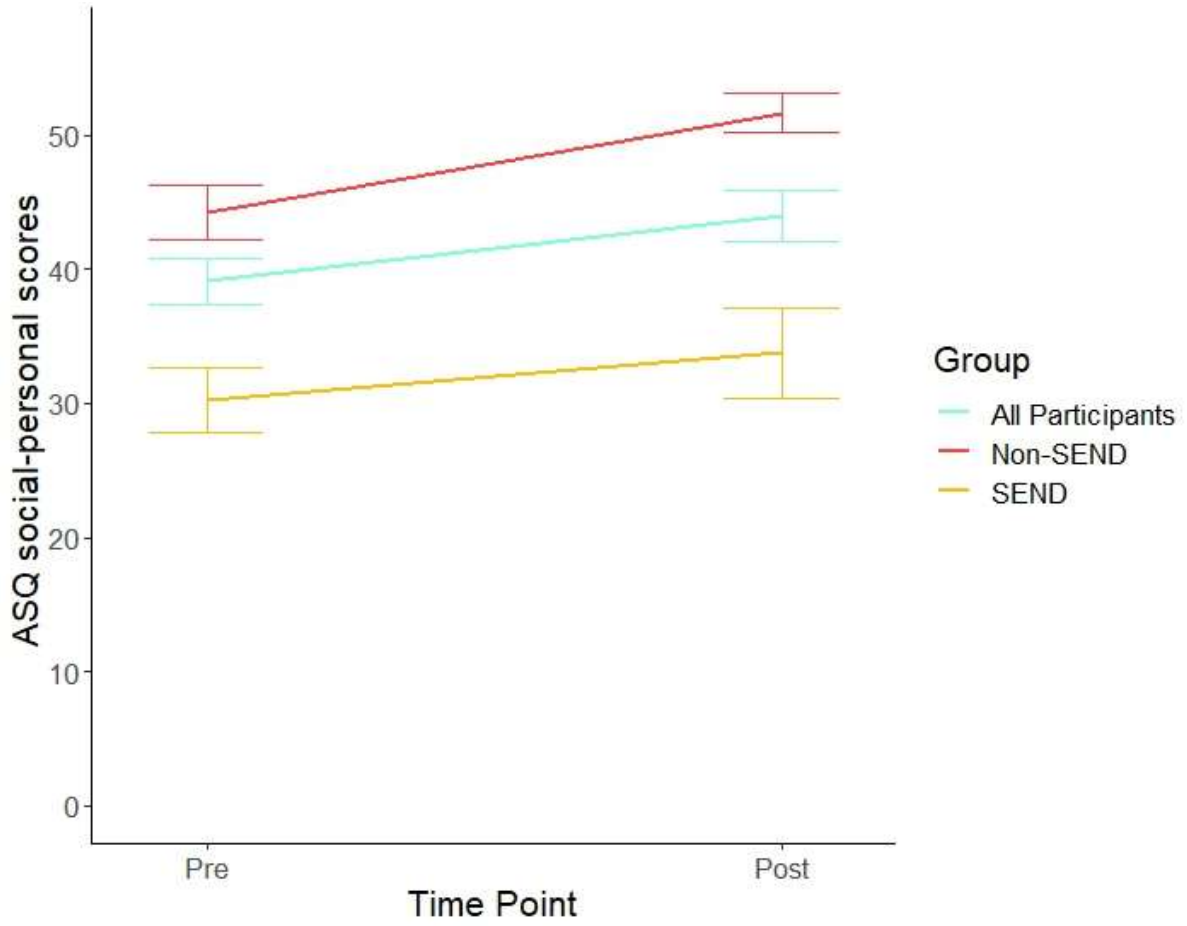

Figure 2

Plot illustrating the change in ASQ3 social-personal scores between baseline and endpoint for all children, children without SEND only, and children with SEND only. Error bars show standard error.

Of children without SEND for whom data were available, 87.21% reached the evaluation target on the ASQ3 personal-social scale. For children with SEND, the CBT was used as a measure instead, and the evaluation target threshold was reached for 79.41% of children. In total, therefore, the evaluation target was reached for 83.77% of children (see section 3.5.2).

3.2.2 Early Years Foundation Stage profiling (Personal, Social, and Emotional Development)

EYFS profiling data were available for 110 children who finished their Reception year of school in July 2025. Of these 110 children, 55 (50%) achieved a good level of development in the Personal, Social, and Emotional Development prime area of learning. Of the 110 children for whom EYFS profiling data were available, 48 had SEND, and the majority of these 48 children (77.1%) did **not** achieve a good level of development in this prime area of learning. However, the majority of the 62 children without SEND (71%) did achieve a good level of development in this prime area of learning.

Table 2 presents the data about whether children achieved a good level of development in the Personal, Social, and Emotional Development prime area of learning, split between children with and without SEND.

Table 4

Children with and without SEND who achieved a good level of development in the EYFS Personal, Social, and Emotional Development *prime area of learning*

EYFS Personal, Social, and Emotional Development Prime Area of Learning	Achieved a good level of development	Did not achieve a good level of development
All children (n=110)	55 (50%)	55 (50%)
Children without SEND (n=62)	44 (71%)	18 (29%)
Children with SEND (n=48)	11 (22.9%)	37 (77.1%)

3.3 Indicator 3: Parental self-efficacy

3.3.1 Being a Parent Survey

The sample size at baseline was n=125, and at endpoint it was n=157, but the number of paired samples (with scores at both baseline and endpoint) was lower (n=76).

Table 5 shows the mean and standard deviation for BAP scores at baseline and endpoint from these completed surveys. These indicate that BAP scores were slightly higher at endpoint, but should be interpreted with caution, given that only 76 parents completed the measure at both timepoints.

Table 5

BAP scores before and after completing the ParentChild+ programme

BAP scale	Baseline (n=125)	Endpoint (n=157)
Satisfaction	25.48(SD=6.84)	27.03(SD=6.61)
Efficacy	32.64(SD=4.94)	34.61(SD=5.52)
Total	58.12(SD=9.34)	63.61(SD=8.95)

Including only the 76 parents who completed both surveys, we conducted paired-sample t-tests to compare BAP scores at baseline and endpoint. There was a statistically significant increase in total BAP scores ($t(74) = 4.34$, $p<0.001$, Cohen's $d=0.40$(95% CI=0.21, 0.58)), the satisfaction subscale ($t(74)=2.73$, $p=0.008$, Cohen's $d=0.28$(95% CI=0.07, 0.49)), and the efficacy subscale ($t(74)=3.55$, $p<0.001$, Cohen's $d=0.36$(95% CI=0.15, 0.56). These analyses suggest that there were small to moderate increases in parents' satisfaction, efficacy, and total scores, but these should also be interpreted with caution as they are based on a small, and possibly unrepresentative, subsample of parents who completed both surveys.

The difference between baseline and endpoint is visualised in Figure 3. In this plot, the horizontal black line shows the average score at each timepoint, whilst the dots and coloured area visualise the distribution of parents' scores at each timepoint.

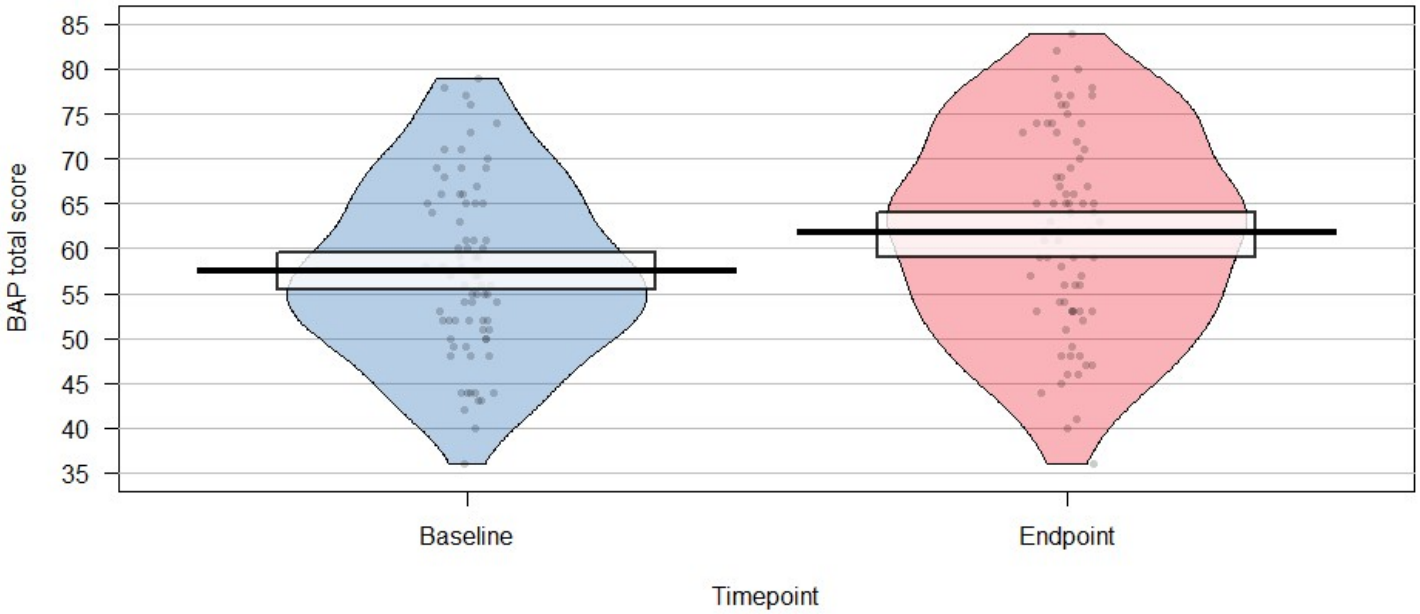

Figure 3

A pirate plot visualising BAP total scores at baseline and endpoint

As there were concerns about how many baseline BAP surveys were returned during the first wave of the COVID-19 pandemic, it was decided in discussions between Family Lives and the council that for endpoint surveys that were returned from parents where there was no baseline survey returned, the evaluator would use a mean baseline score from the 44 surveys received at that point in time (November 2021) to determine whether there were changes in BAP scores.

For the following analyses, the baseline figure for all missing baseline surveys was decided as being 26 on the satisfaction subscale, 33 on the efficacy subscale, and 58 for the total. Whilst this was based upon surveys completed up until November 2021, these scores are similar to the averages of the full number of completed surveys reported in Table 5. This demonstrates that the mean scores used for the missing baseline surveys, as decided in November 2021, remained congruent with the full baseline dataset.

Changes in BAP scores are displayed in Table 6. For BAP total scores, 52.5% of parents showed an increase of 5% or more (evaluation target), 22.5% showed a decrease of 5% or more, and 25% remained stable (increase less than 5% and greater than -5%). For BAP satisfaction scores, 48.13% of parents showed an increase of 5% or more, 30% showed a decrease of 5% or more, and 22.5% remained stable (increase less than 5% and greater than -5%). For BAP efficacy scores, 51.25% of parents showed an increase of 5% or more, 22.63% showed a decrease of 5% or more, and 28.75% remained stable. Around half of all parents, therefore, showed a positive change in BAP scores.

Table 6

Percentage of parents showing positive change, negative change, or no change in BAP scores

BAP scale	Positive change	Negative change	No change
Satisfaction	48.13%	30%	22.5%
Efficacy	51.25%	22.63%	28.75%
Total	52.5%	22.5%	25%

3.4 Parent and Child Together (PACT)

For children without SEND, the sample size for PACT data was n=125 at baseline, n=93 at midpoint, and n=91 at endpoint. For children with SEND, the sample size was n=81 at baseline, n=70 at midpoint, and n=66 at endpoint. The mean scores and standard deviation at each timepoint are displayed in Table 7 and show an increase throughout the programme.

ParentChild+ aims for families to maintain a score average above 3 by programme end, as exhibiting these behaviours often indicates that the family is ready for school success. The data reported below is therefore based upon the average score across PACT items, rather than the sum of items.

Table 7

PACT scores at each timepoint for children without SEND and children with SND

PACT scores	Baseline	Midpoint	Endpoint
Children without SEND	1.34(SD=0.80)	2.58(SD=0.48)	3.54(SD=0.34)
Children with SEND	1.39(SD=0.84)	2.50(SD=0.43)	3.33(SD=0.43)

3.4.1 PACT scores for children without SEND

At baseline, children without SEND had an average PACT score of 1.34 (SD=0.80). At midpoint, they had an average score of 2.58 (SD=0.48). By endpoint, children without SEND had an average score of 3.54 (SD=0.34). Figure 4 shows the change in average PACT scores between baseline, midpoint, and endpoint, with the red line showing the score of 3 that ParentChild+ aims to reach. The percentage of children with an average PACT score ≥3 was 4% at baseline, 25.81% at midpoint, and 93.41% at endpoint.

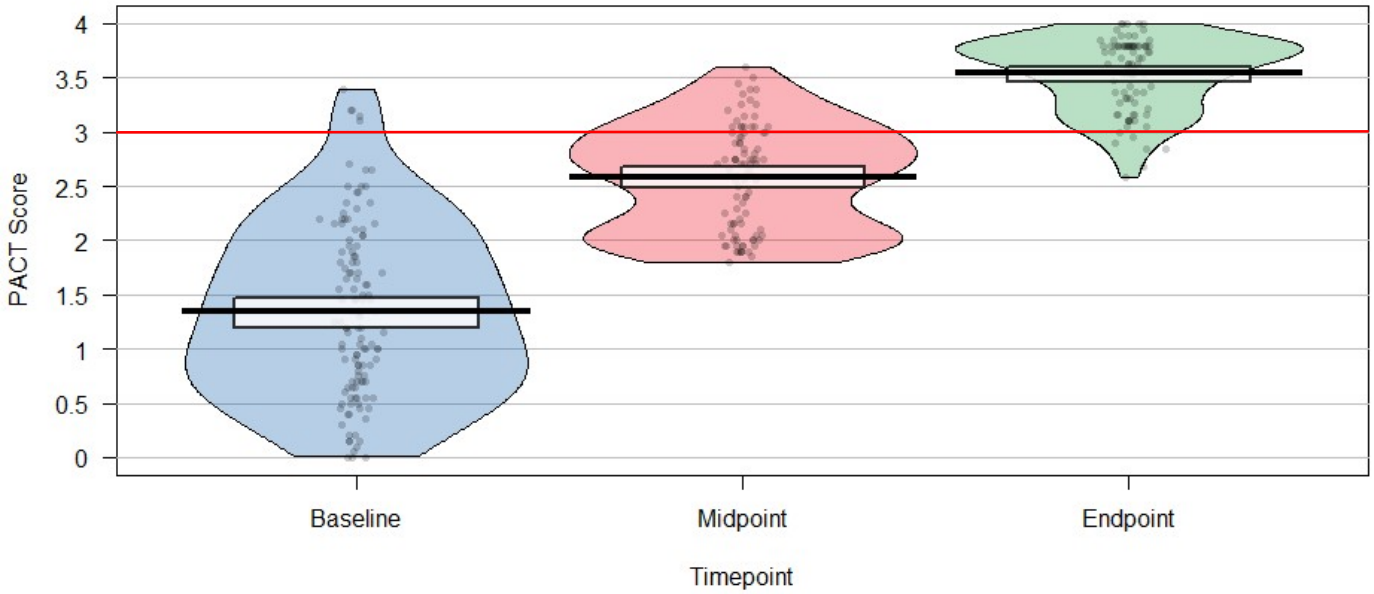

Figure 4

A pirate plot visualising PACT scores at baseline, midpoint, and endpoint for children without SEND

PACT scores for children without SEND were analysed using Welch's ANOVA as the data violated the assumptions of homogeneity of variance (PACT scores had different distributions at different time points). There was a statistically significant change in PACT scores over time ($F(1,96.88)=419.29$, $p<0.001$). Post-hoc Wilcoxon tests comparing PACT scores at each timepoint were all statistically significant ($p<0.001$), indicating a significant increase in the frequency of positive parent-child interactions between baseline and midpoint, between baseline and endpoint, and between midpoint and endpoint.

In summary, children without SEND on average showed large increases in PACT scores from baseline to midpoint, and midpoint to endpoint, and there was an extremely large increase in the percentage of children with average PACT item scores greater than three at endpoint as compared with baseline.

3.4.2 PACT scores for children with SEND

Children with SEND had an average PACT score of 1.39(SD=0.84) at baseline, 2.50(SD=0.43) at midpoint, and 3.33(SD=0.43) at endpoint. Figure 5 shows the change in average PACT scores over time, with the red line showing the score of 3 that ParentChild+ aims to attain. The percentage of children with an average PACT score ≥3was 4.94% at baseline, 11.43% at midpoint, and 77.27% at endpoint.

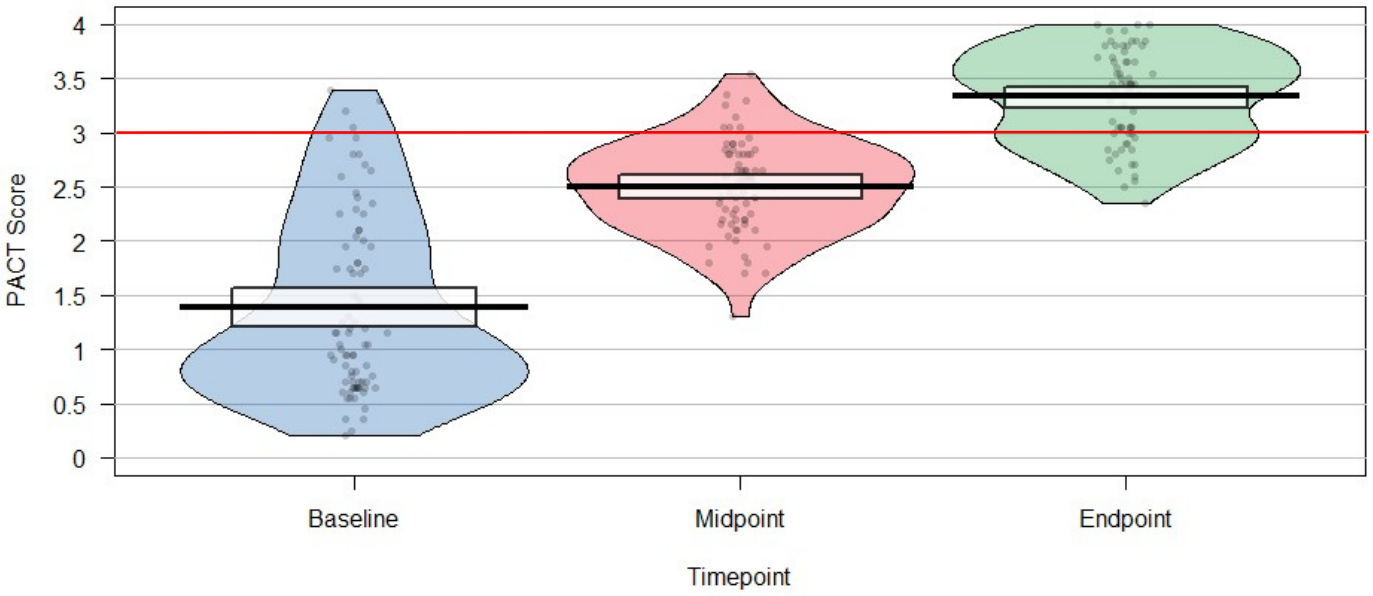

Figure 5

A pirate plot visualising PACT scores at baseline, midpoint, and endpoint for children with SEND

PACT scores for children with SEND were analysed using Welch's ANOVA as the data violated the assumptions of homogeneity of variance (PACT scores had different distributions at different time points). There was a statistically significant change in PACT scores over time ($F(2,140.46)=173.74$, $p<0.001$). Post-hoc Wilcoxon tests comparing PACT scores at each timepoint were all statistically significant ($p<0.001$), indicating a significant increase in the frequency of positive parent-child interactions between baseline and midpoint, between baseline and endpoint, and between midpoint and endpoint.

In summary, children with SEND on average showed large increases in PACT scores from baseline to midpoint, and midpoint to endpoint. Whilst slightly fewer children with SEND attained an average score greater than 3 by endpoint as compared with children without SEND (93.41% vs 77.27%), there was still a large increase in the percentage of children with SEND reaching this cutoff by endpoint, as compared with baseline.

3.5 Child Behaviour Traits (CBT)

The data for children with SEND and children without SEND are presented separately in this section. For children without SEND, the sample size was n=123 at baseline, N=93 at midpoint, and n=89 at endpoint. For children with SEND, the sample size was N=83 at baseline, n=72 at midpoint, and n=67 at endpoint. Mean CBT scores at each timepoint are shown in Table 8 and show an increase throughout the programme.

ParentChild+ aims for families to maintain a score average above 3 by programme end, as exhibiting these behaviours often indicates that the family is ready for school success. The data reported below is therefore based upon the average score across CBT items, rather than the sum of items.

Table 8

CBT scores at each timepoint for children without SEND and children with SEND

CBT scores	Baseline	Midpoint	Endpoint
Children without SEND	1.01(SD=0.63)	2.36(SD=0.44)	3.46(SD=0.41)
Children with SEND	0.74(SD=0.51)	1.67(SD=0.61)	2.40(SD=0.74)

3.5.1 CBT scores for children without SEND

At baseline, children without SEND had an average CBT score of 1.01 (SD=0.63). At midpoint, they had an average score of 2.36 (SD=0.44). By endpoint, children without SEND had an average score of 3.46 (SD=0.41). Figure 6 shows the change in average CBT scores between baseline, midpoint, and endpoint, with the red line showing the score of 3 that ParentChild+ aims to reach. The percentage of children with an average CBT score ≥3 was 0% at baseline, 8.60% at midpoint, and 89.89% at endpoint.

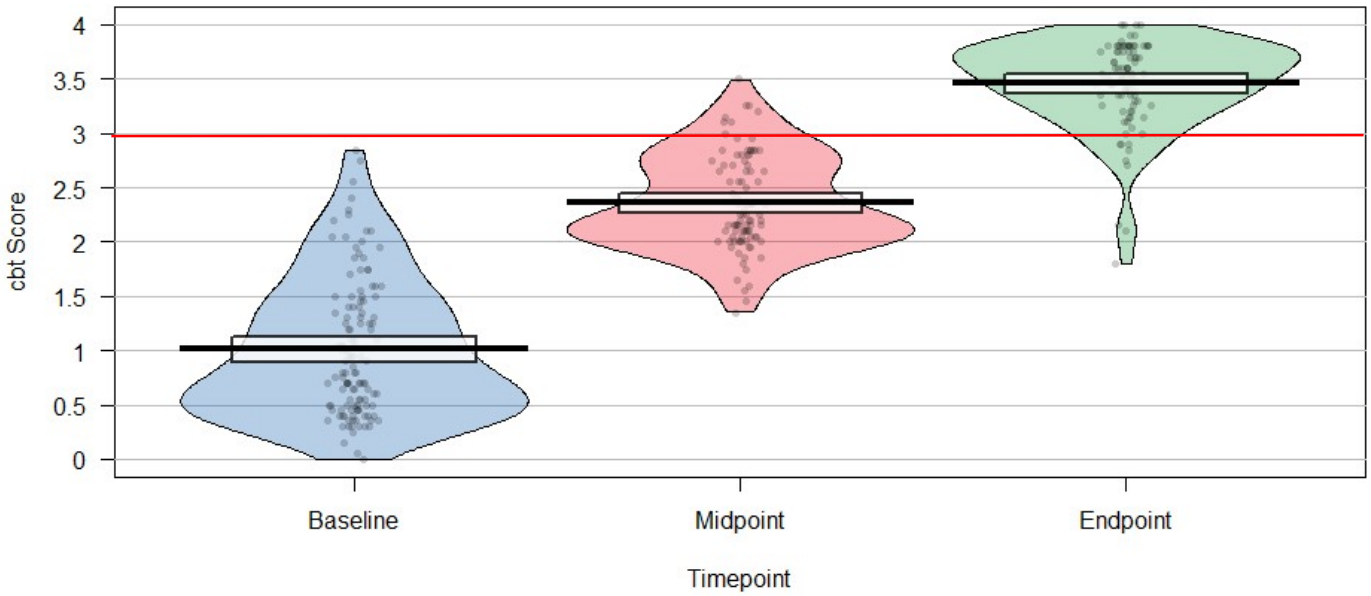

Figure 6

Pirate plot visualising change in CBT scores between baseline, midpoint, and endpoint for children without SEND

CBT scores for children without SEND were analysed using Welch's ANOVA as the data violated the assumptions of homogeneity of variance (CBT scores had different distributions at different time points). There was a statistically significant change in CBT scores over time ($F(2,200.95)=581.2$, $p<0.001$). Post-hoc Wilcoxon tests comparing CBT scores at each timepoint were all statistically significant ($p<0.001$), indicating a significant improvement in children's behaviour between baseline and midpoint, between baseline and endpoint, and between midpoint and endpoint.

In summary, there is evidence of large increases in CBT scores between baseline and midpoint, and between midpoint and endpoint, and there were very large increases in the

percentage of children attaining average CBT scores greater than or equal to three at endpoint as compared with baseline.

3.5.2 CBT scores for children with SEND

At baseline, children without SEND had an average CBT score of 0.74 (SD=0.51). At midpoint, they had an average score of 1.67 (SD=0.61). By endpoint, children with SEND had an average score of 2.40 (SD=0.74). Figure 7 shows the change in average CBT scores between baseline, midpoint, and endpoint, with the red line showing the score of 3 that ParentChild+ aims to reach. The percentage of children with an average CBT score ≥3 was 0% at baseline, 1.39% at midpoint, and 22.39% at endpoint.

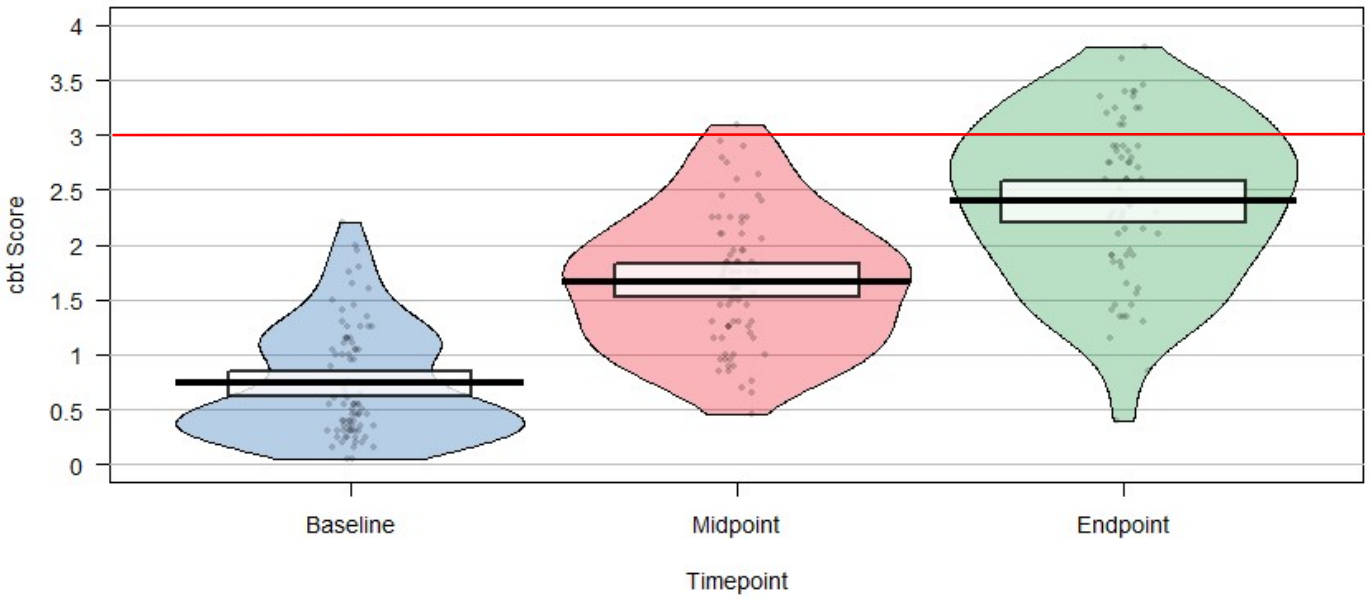

Figure 7

Pirate plot visualising change in CBT scores between baseline, midpoint, and endpoint for children with SEND

CBT scores for children with SEND were analysed using Welch's ANOVA as the data violated the assumptions of homogeneity of variance (CBT scores had different distributions at different time points). There was a statistically significant change in CBT scores over time ($F(2,135.47)=135.33$, $p<0.001$). Post-hoc Wilcoxon tests comparing CBT scores at each timepoint were all statistically significant ($p<0.001$), indicating a significant improvement in children's behaviour between baseline and midpoint, between baseline and endpoint, and between midpoint and endpoint.

In summary, there is evidence of large increases in CBT scores between baseline and midpoint, and between midpoint and endpoint. Whilst the majority of children with SEND still did not attain average CBT scores greater than or equal to three by endpoint, there were nevertheless large increases in the percentage of children who did reach this target (0% at baseline compared with 22% at endpoint.

4 Qualitative data

4.1 About the programme outcomes

4.1.1 Parents

Interviews were conducted with 42 parents taking part in the programme (19 at midpoint and 23 at endpoint). Parents identified a number of positive effects of the ParentChild+ programme on their children including: expressive communication (n=37), socialisation (n=21), attention and engagement (n=15), understanding the world around them (n=11), reading and writing (n=9), confidence in play (n=8), receptive communication (n=2), and creativity (n=2).

Of all these changes, expressive communication was particularly emphasised by many parents. They frequently described increases in their child's vocabulary and children speaking with longer and more complex sentences.

"*his speech has improved quite clearly and it's not only myself that has noticed that, it's people around him as well."*

"I am really surprised by her vocabulary and how quickly she is picking things up. We speak to her all the time anyway. We were reading before. I think it has added to her development being part of this."

These changes were often attributed to the additional social interaction provided by Home Visitors and parents. However, some parents noted that it is challenging to disentangle the effects of the programme from developmental changes that would naturally have occurred as their child aged. Of course, what constitutes meaningful improvement in expressive communication varies between children. For example, some children with SEND began to use single words or short phrases, but their verbal communication was still delayed.

Development in socialisation skills was also frequently reported by parents, particularly increases in children's confidence when interacting with individuals outside of the family.

"*It has helped him to get used to other people. At first with [his Home Visitor], he wasn't engaged with her. It kind of showed him that you can interact with other people.*"

In fifteen interviews, parents reported that the programme had equipped their child to settle into nursery or school more easily. This was particularly attributed to development in children's communication, social confidence, and ability to focus.

"*I wouldn't have sent him to school if he wasn't able to communicate the way he is communicating.*"

Many parents also identified positive effects of the programme on themselves. In 25 interviews, parents described gaining more confidence or knowledge in playing with their children. This was often through Home Visitors modelling and suggesting creative ways to engage children in play and reading. This, in turn, could also contribute to improvements in parent-child relationships.

"*It gave me more of an idea of how I can engage myself with my child.*"

"*I learned how to be more patient, how to love my child more, to understand my child, to work hard and give more time to her. I learned to accept her and to love her as she is.*"

In some interviews (n=8), parents also described positive effects on their own wellbeing, particularly through the Home Visitors being a source of social and emotional support.

"*It was nice to be able to confide in someone, someone who's had kids who understands certain difficulties you might face and just how to overcome it and just that reassurance was more of an emotional support.*"

4.1.2 Home Visitors

In the ten interviews with Home Visitors, they reported that the children they were working with had experienced positive changes including those in: expressive communication (n=7), socialisation (n=4), receptive language (n=3), confidence in play (n=2), attention and engagement (n=2), creativity (n=1), and preparing them for nursery or school (n=2). Home Visitors also described positive effects on parents, such as: improving their confidence and knowledge in playing with their child (n=6), improving their confidence or wellbeing (n=6), and improving the parent-child relationship (n=1).

Similarly to parents, Home Visitors often particularly emphasised development in children's expressive communication, with children's vocabulary and use of language during play and reading developing throughout the programme.

"*Most of our children when they start they don't speak, they either babble or if they don't babble they just communicate with gestures or body language so one of the main accomplishments is getting the child to start talking.*"

Home Visitors described parents as often becoming noticeably more confident in playing with and interacting with their child in engaging and creative ways throughout the programme. Home Visitors also thought the programme was a valuable source of emotional support for parents, particularly during the socially isolating period of the COVID-19 pandemic. Additionally, Home Visitors sometimes play a signposting role, referring parents to other support such as mental health services.

"*She knows that if something goes wrong on a weekend, or she is totally low, she will see me in a few days, so that makes her feel really good.*"

4.1.3 Area Co-ordinator

The Area Co-ordinator for the programme was interviewed in 2021 and again in 2023. Similar to the parents and Home Visitors, the Area Co-ordinator described families reporting positive effects of the programme. They reported feedback from parents that they had learned new skills for interacting with their child and had become more confident. They reported that most children had shown "marked improvement", particularly in their communication.

4.1.4 Early Years managers or staff

Interviews with Early Years staff confirmed the findings from other interviews. They reported that children who took part in ParentChild+ showed development in a number of areas including: expressive communication (n=9), social skills/making friends (n=7), confidence (n=6), engagement with stories (n=4), helping them to settle into school/nursery (n=3), play (n=3), attention and engagement (n=3), ability to take turns and share (n=2), and the ability to follow routines and accept transitions (n=2).

Children were typically referred to the programme because of delays in development, but in six interviews with Early Years professionals, they reported that the programme had helped

the children to catch up with their peers; sometimes this was evidenced by their Early Years Foundation Scales assessments. Whilst some Early Years professionals had limited contact with the programme, which made it hard to evaluate the extent to which changes can be attributed to ParentChild+, many Early Years professionals viewed the programme as an effective source of support for children displaying delays in language and social development and as helping children to be better prepared for school.

Early Years staff also emphasised the positive effects on parents, such as confidence and knowledge in playing with and interacting with their child (n=7) and positive effects on parents' wellbeing (n=6). This was viewed as particularly important for some parents who were very socially isolated and had little support. They also viewed Home Visitors as playing an important role in signposting families to additional support, such as mental health services for parents, since the regular contact between Home Visitors and parents meant parents may disclose difficulties that schools/nurseries are unaware of.

4.2 Perspectives on process aspects of programme delivery

4.2.1 Parents

Parents described children and themselves as enjoying the ParentChild+ sessions. Children were often excited to see the Home Visitor and enjoyed receiving the new toys and books.

Parents generally spoke very positively about the Home Visitors. They were perceived as being friendly, a source of valuable knowledge and support, and gifted in building positive relationships with the children. However, parents reported that there were occasional difficulties with Home Visitors. Turnover in Home Visitors meant that some families worked with two or three different Home Visitors throughout the programme, and this change was reported by parents as being potentially disruptive for their child. In another case, a Home Visitor spent more time talking with one of the child's parents than working with the child. This was a concern for this parent as it meant that their child did not get as much of the intervention as they were supposed to have for a period of time. Perceptions of the respective roles of the Home Visitor and parent during the sessions tended to be that Home Visitors would model the behaviours for parents, which they could then follow within and outside of the sessions.

The books and toys were generally perceived very positively. Children were reported to enjoy the range of books and toys, and the most popular items varied between families. Some parents described that they would be financially unable to afford such a range of books and toys themselves, and so they were particularly appreciated. The support of Home Visitors helped parents to understand and develop new ways of creatively playing with toys and reading books to promote their child's continued development. However, some parents also expressed less positive feedback about some items. Sometimes this was because their child was not interested in particular items. In other cases, some items were perceived by parents as being developmentally inappropriate (i.e., designed for older or younger children) for their child, or cheap, or short-lasting. One parent commented that the toys could have been more culturally diverse.

Parents typically reported that the Home Visitors worked hard to be flexible around timings that were most suitable for families. Different arrangements were more suitable for different families, for example, some preferred two half-hour sessions a week, whereas others preferred a single one-hour session. Those who favoured shorter sessions described them as being more manageable for the children, whereas those favouring single, longer sessions

often did so due to time constraints such as work commitments. Some parents described wanting the programme to last longer, beyond the two years.

The disruption and transition to online delivery during the COVID-19 pandemic were perceived negatively by many parents. They generally described Home Visitors working very hard to adapt the programme for online sessions, and Home Visitors continued to be perceived as a valuable source of support during the pandemic. However, online sessions were generally regarded as intrinsically challenging for young children, and many parents reported that their child struggled to focus and engage with the sessions online. Whilst parents understood the necessity for online delivery, and were not critical of Home Visitors or Family Lives, they often felt disappointed when the programme transitioned to online delivery and were pleased when the opportunity for face-to-face sessions re-emerged.

4.2.2 Home Visitors

Home Visitors reported feeling well-skilled for their role. All interviewed Home Visitors described relevant prior experience, such as working in nurseries, as a family support worker, or having relevant higher educational qualifications. They generally reported applying for the role because they were interested in working with families and children and being able to build up relationships with those on their caseload. Home Visitors reported enjoying their role and believed it to be valuable and impactful.

The training and support for Home Visitors were perceived positively. Initial training covered the ParentChild+ programme, safeguarding, attachment theory, how to conduct home visits safely, and building positive but professional relationships with families. Most Home Visitors then reported having had the opportunity to shadow sessions before conducting visits independently. In addition to the initial training, many Home Visitors subsequently described receiving additional training, such as training about domestic violence, trauma, higher-level safeguarding training, and mental-health first aid. Home Visitors attended weekly team meetings during which they could discuss their caseload, seek advice on potential issues, and identify training needs. They also had monthly supervision, which offered another opportunity to discuss issues, support needs, and the Home Visitor's own wellbeing. Furthermore, their manager was described as supportive and responsive when issues arose.

Home Visitors' workload was generally reported to be busy but manageable. Full-time staff reported having a caseload of 14-17 families at the time of the interview. Home Visitors would aim to see each family twice weekly for half-hour sessions or once weekly for one-hour sessions, depending on families' availability. Wednesdays were generally reported to be free from home visits and were dedicated to team meetings, administration, and training. Home Visitors described finding this caseload manageable, although busy schedules of consecutive visits could reduce their flexibility for families wanting to alter times.

Home Visitors described most families as highly engaged with the programme. Some parents were reported as being highly engaged from the start and clearly independently applied skills between visits. Other families were reported as initially appearing sceptical of the Home Visitor's suggestions for interacting with and playing with their child, but gradually became more comfortable as they developed trust in the Home Visitors and observed positive effects for their child. Barriers to successfully engaging families included language barriers, some parents appearing "closed off" to building a relationship with Home Visitors, or difficulty scheduling regular sessions with families. Facilitators of engagement included expressing interest in parents' wellbeing as well as the child's, speaking the parents' first language, and arranging sessions at suitable times.

Home Visitors generally expressed a preference for face-to-face sessions. They described difficulties engaging with young children in online interactions and observing better outcomes from face-to-face sessions. However, they also identified some advantages of online sessions, such as greater accessibility for parents, reduced travel times for Home Visitors, and that some parents were nervous about professionals visiting their home.

4.2.3 Area Co-ordinator

The Area Co-ordinator reported bringing relevant experience to the role, including having worked with children and parents and supervising staff. They had received three days of training on co-ordinating the ParentChild+ programme and were in ongoing contact with other co-ordinators of ParentChild+ programmes in other areas within the UK to provide mutual support.

Some initial challenges were reported in recruiting Home Visitors, but the quality of Home Visitors was reported to be high. The majority of Home Visitors were paid staff, but these were supplemented by a small number of volunteers. Initial recruitment challenges were partially due to the requirement for some staff to speak Arabic or Bengali, and applicants dropping out after receiving job offers. However, the Home Visitors were described as experienced and passionate about their work. Retention levels for Home Visitors were also reported to be high, meaning that staffing for delivering the programme was adequate.

Recruitment of families was reported to initially be challenging due to limited referrals from Health Visitors, particularly in areas where Family Lives had fewer existing connections. However, there was an increase in referrals from Speech and Language Therapists and Health Visitors following the easing of COVID-19 restrictions, and an increase in self-referrals and referrals from other sources as the programme was more actively promoted and became more widely known in the areas. Retention of families was reported to be good, and the primary reasons for leaving the programme were moving out of the area or beginning nursery/school and therefore feeling the support was no longer required.

The Area Co-ordinator reported being in a position to oversee quality control of the delivery of ParentChild+. Home Visitors submitted notes on sessions, which were reviewed by the Area Co-ordinator, and they also had regular supervision and team meetings. Additionally, the Area Co-ordinator delivered the programme to one family and so reported having continued insight into the experience of Home Visitors. The Area-Coordinator was able to support delivery by matching Home Visitors with particular skills to families with particular needs, identifying training requirements for staff, and ensuring issues that arose were addressed.

Early in delivery, some issues with the toys and books were reported to have been identified and addressed. For example, some books were not described as not developmentally appropriate, or had American (rather than English) words and language, and so were replaced. They also found that the range of books was not culturally representative of all of the families who were receiving support, so this was rectified. Some of the toys were also changed to ensure that they were developmentally appropriate for the children on the programme, and to ensure that they were not flimsy or a choking hazard.

The Area Co-ordinator described seeking to make the programme sensitive to cultural diversity. This included recruiting Bengali- and Arabic-speaking Home Visitors as these are two widely spoken languages in the local area. However, some parents were still unable to access the programme if a Home Visitor who spoke the same language could not be identified. They also sought to include books celebrating a range of different cultural and religious festivals.

The Area Co-ordinator identified several challenges in collecting outcome data for the evaluation. Collecting ASQs was identified as the most challenging aspect of the role. These were supposed to be collected by Health Visitors and passed on to Family Lives, but the assessments were often late or not conducted, and the Area Co-ordinator had difficulty obtaining these. This was further compounded by COVID-19 lockdowns which meant parents had less contact with Health Visitors. Some parents who did not speak English as a first language also had difficulty understanding items in the outcome measures. The Area Co-ordinator reported that BAP appeared not to be acceptable to all parents, with some parents disliking the questions, and one parent leaving the programme because of this. CBT and PACT assessments were conducted by Home Visitors and were reported to be more straightforward.

The Area Co-ordinator identified some challenges in supporting children with SEND. For some children with SEND, the programme did not appear to be meeting their needs, and so the team considered ending the programme early with some children with SEND. To ensure that Home Visitors were better equipped to support children with SEND, staff received two days of training from speech and language therapists, with a particular focus on autism. Another reported adaptation was the more frequent use of sensory toys for children with SEND.

4.4.4 Early Years managers or staff

Early Years professionals understood ParentChild+ to involve Home Visitors working with families to help parents interact with and play with their child to encourage their language and social development. Some Early Years professionals had close links with the programme and had referred many children, whilst others had only learnt about ParentChild+ upon the child's completion and had only gained information from reading about the programme online. Schools or nurseries that had not been informed that the child was taking part in the programme felt it would have been beneficial to have been informed so that the family, nursery/school, and Home Visitor could work collaboratively.

Many staff highlighted the lack of alternative support for children showing delays in development, and so valued having the opportunity to refer to the programme. If the programme were not to be available, staff thought that these delays in development might have widened or persisted for some children.

Some staff also identified that some families had appeared more engaged with the programme, and that children had shown better outcomes when parents were highly engaged. Barriers to engagement were identified as parental mental health difficulties, hospital appointments, and parents worrying about being judged by Home Visitors for the way they were interacting with their children.

5 Limitations

Several limitations of this evaluation should be considered when interpreting these findings. First, the study did not include a control group. Some of the outcomes assessed in the evaluation would be expected to change as children age without any intervention, particularly given the long duration of the ParentChild+ programme. Without a control group that did not receive an intervention, it is therefore impossible to disentangle what proportion of the change is attributable to the intervention, and what proportion is attributable to natural developmental maturation.

Large amounts of missing outcome data make robust evaluation of the programme's outcomes more challenging. In particular, the Area Co-ordinator highlighted the difficulties obtaining ASQ scores and BAPs, issues which were compounded by the disruption caused by COVID-19. This means that pairwise comparisons of these outcomes were not possible for many families. This can particularly introduce bias in assessing an intervention's effectiveness if the data is not missing randomly, for example, if parents who are less engaged with the programme (and therefore who may show smaller benefits) are also less likely to have completed BAPs or ASQ assessments.

A third limitation is that the PACT and CBT were assessed by Home Visitors who had delivered ParentChild+. The interviews suggested that Home Visitors were highly invested in the programme, believed in its benefits, and were passionate about their work. These characteristics are all extremely valuable. However, their involvement in delivering the programme is also likely to introduce bias in Home Visitors' assessment of the programme's outcomes and could potentially lead to larger increases in PACT and CBT scores.

6 Conclusions

1. Has the ParentChild+ programme improved the speech and language skills of the child to the expected level of development?

When including data from all children, there were moderate, significant increases in children's ASQ3 communication scores after taking part in the programme. Further analysis identified that there was a large, significant effect for children without SEND and a small, non-significant effect for children with SEND. Overall, 84.42% of children met the evaluation target for communication. This included 88.37% of children without SEND (based upon ASQ3 communication scores) and 79.41% of children with SEND (based upon meeting CBT thresholds).

Data from the EYFS profiling largely support the ASQ3 findings for children without SEND, with 71% of children without SEND achieving a good level of development in the Communication and Language prime area of learning. The EYFS data for SEND children does not, however, support the CBT data, with only 16.7% of these children achieving a good level of development in the Communication and Language prime area of learning.

These findings are also reflected in the qualitative interviews with stakeholders. Parents, Home Visitors, and Early Years Professionals all frequently identified development in expressive communication as an effect of the programme. This was particularly attributed to the programme increasing verbal interaction with parents and with Home Visitors.

2. Has the ParentChild+ programme improved social and personal skills of the child to the expected level of development?

Children without SEND showed moderate, significant increases in ASQ3 personal-social scores. However, there was no evidence of a change in social and personal skills for children with SEND. Overall, 83.77% of children met the evaluation target for communication. This included 87.21% of children without SEND (based upon ASQ3 communication scores) and 79.41% of children with SEND (based upon meeting CBT thresholds).

Data from the EYFS profiling largely support the ASQ3 findings for children without SEND, with 71% of children without SEND achieving a good level of development in the Personal, Social, and Emotional Development prime area of learning. The EYFS data for SEND children does not, however, support the CBT data, with only 22.9% of these children achieving a good level of development in the Personal, Social, and Emotional Development prime area of learning.

In interviews, parents, home visitors, and early years professionals also identified positive effects on social interaction, confidence, and relationship building for many children. However, these did appear to be emphasised less than the effect on expressive communication.

3. Has the ParentChild+ programme increased parental self-efficacy/parent-child interaction?

There is some evidence that ParentChild+ had positive effects on parental self-efficacy and parent-child interaction. Quantitative analysis of BAP scores suggested that there were small-moderate increases in parental satisfaction and efficacy, though there were relatively few parents with BAP data at both timepoints.

Interviews also suggested that there were positive effects on parents' interaction and play with their children, and on parent's wellbeing.

4. Has the ParentChild+ programme improved other outcomes?

Analyses of PACT data suggest that there were extremely large increases in the frequency of positive parent-child interactions. At baseline, 4% of children without SEND and 4.94% of children with SEND had average scores ≥3, compared with 93.41% of children without SEND and 77.27% of children with SEND at endpoint.

Similarly, there were extremely large improvements in children's behaviour according to analyses of CBT scores, particularly for children without SEND. At baseline, 0% of children without SEND and children with SEND had average CBT scores ≥3, compared with 89.89% of children without SEND and 22.39% of children with SEND.

7 References

Gilmore, L., & Cuskelly, M. (2009). Factor structure of the Parenting Sense of Competence scale using a normative sample. *Child: Care, Health and Development*, 35(1), 48-55.

Johnston, C. & Mash, E. J. (1989) A measure of parenting satisfaction and efficacy. *Journal of Clinical Child Psychology*, 18, 167–175.

Levenstein, P., Levenstein, S., & Oliver, D. (2002). First grade school readiness of former child participants in a South Carolina replication of the Parent–Child Home Program. *Journal of Applied Developmental Psychology*, *23*(3), 331-353.

R Core Team (2023). _R: A Language and Environment for Statistical Computing_. R Foundation for Statistical Computing, Vienna, Austria. <https://www.R-project.org/>.