Save the Children

IMPACT EVALUATION OF THE CHILD GRANT PARENTING PROGRAMME IN NEPAL

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Save the Children

Impact evaluation of the Child Grant Parenting Programme in Nepal

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Cover photo: A mother in Gaushala Municipality bonding with her child. Photo: Hemanta Dangal

Impact evaluation

Child Grant Parenting Programme - Nepal

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List of Abbreviations

CREDI	Caregiver Reported Early Development Instrument
ECD	Early Child Development
IDELA	International Development and Early Learning Assessment
PICCOLO	Parenting Interactions with Children: Checklist of Observations Linked to Outcomes
SD	Standard Deviation

EXECUTIVE SUMMARY

This report presents the results from the quasi-experimental evaluation of a parenting programme implemented with beneficiaries of the government Child Grant Programme in Nepal. The Child Grant is a cash transfer programme being delivered in 25 districts in Nepal aimed at reducing malnutrition in children below the age of five. The Child Grant is a monthly cash transfer programme that provides families with NPR 532 per month per child for up to two children below the age of five. This study followed 887 dyads of children and caregivers for a period of 11 months. Of the 887 dyads, 425 dyads were part of the intervention group, which received the parenting programme in addition to the cash transfer received from the government, while 462 dyads in the comparison group only received the cash transfer.

The parenting programme aims to enable social protection programmes like the Child Grant to have a more pronounced impact on children's development. The thrust of the programme is to help parents become more conscious of ways to improve relationships with their children, to have more enriching interactions with them and to promote positive disciplining strategies. This will in turn pave the way for children's emotional, social and cognitive development. The programme was delivered through a series of 12 weekly sessions to Child Grant beneficiaries. These sessions covered areas such as communication and stimulation in early childhood, budgeting household finances and children's nutrition. In addition to the weekly parenting sessions, home visits were also made to all participants to provide caregivers with individualized support and guidance.

This study follows a quasi-experimental research design to assess the impact of the parenting programme offered to Child Grant beneficiaries on children's development and growth outcomes, caregivers' engagement with their children (including the use of various forms of maltreatment) and caregivers' ability to effectively manage their household budget. It compares the intended outcomes for the child–caregiver dyads in the intervention group (who received the parenting programme) and dyads in the comparison group (who did not receive the parenting sessions). The dyads in our sample were assessed twice: prior to the commencement of the intervention (pre-intervention) and 11 months after the pre-intervention assessment data collection (post-intervention).

This study investigated the following research questions.

1. Did the parenting programme exhibit a positive impact on the intended outcomes of the parenting intervention? For which types of beneficiaries was the impact greatest/least?
2. How has the sample of children and caregivers changed over time with respect to children's development and nutrition outcomes and caregivers' parenting behaviours?
3. Given the results of the evaluation, how can the parenting programme be adapted to better meet the needs of the beneficiaries?

Our results show that providing caregivers with a parenting intervention in addition to social assistance programmes such as the Child Grant can significantly improve a range of children's and caregivers' outcomes. With respect to caregivers' outcomes, we observe that parents became more engaged with their children's development and early learning between the pre-intervention and post-intervention assessment, but the increase in engagement for caregivers in the intervention group was significantly higher than for the comparison group. We also find a sharp decline in the caregivers' use of maltreatment and harsh disciplining practices, especially in the intervention group. In addition, we find that a greater proportion of caregivers in the intervention group were making savings and preferred to use their savings for favourable purposes as compared to the proportion of caregivers in the comparison group.

Children's development levels improved across all domains between the pre-intervention and post-intervention assessment for the intervention group and the comparison group. However, the average gains for the intervention group are significantly higher than the average gains for the comparison group in all the child development domains for both age groups (children aged 0–2 and children aged 3–5). For children aged 0–2, we observe that participation in the parenting programme led to improved development outcomes among children for all child development domains. We observe that the intervention group's average gains between pre-intervention and post-intervention in various child

development domains significantly exceeded the average gains for the comparison group. The average gains ranged from 0.64 standard deviations (SDs) to 0.85 SDs. In the older age group (children aged 3–5), we find that the average gains for the intervention group were also greater than the average gains for the comparison group for all child development domains. The difference between the two groups was statistically significant. The average gains ranged from 0.30 SDs to 0.39 SDs.

The results also suggest that the number of children in the household, children's sex, exposure to different forms of maltreatment and caregiver engagement are strong predictors of gains between pre-intervention and post-intervention in the child development outcomes. For the younger children (aged 0–2), we observe that girls and children from large families (with more children) have smaller gains in their child development outcomes than boys and children from smaller families (with fewer children) respectively. We also find that children with more frequent exposure to psychological aggression and neglect experienced smaller gains in their child development outcomes than children with lower exposure to psychological aggression and neglect respectively.

Despite the large improvements for the intervention group in their child development and parenting outcomes, we observe that the success of the parenting programme in improving children's nutrition outcomes has been limited. We find that that prevalence of stunting and being underweight has increased for our sample for both age groups. The increase in the prevalence of malnutrition between the pre-intervention and the post-intervention assessment in the intervention group was only marginally lower than the increase for the comparison group. We also observe that the increase between the pre-intervention and post-intervention assessment in the proportion of children aged 6–23 months who received minimum dietary diversity, meal frequency and acceptable diets was greater for the comparison group than the intervention group. Nevertheless, we observe that the intervention group's improvement between the pre-intervention and post-intervention assessment was larger than the comparison group's improvement in their knowledge about breastfeeding and complementary feeding practices.

The key findings from the evaluation suggest the following programming and learning priorities.

Programming priorities

- For children aged 0–2 in the intervention group, we observe that boys' average gains in their child development outcomes between the pre-intervention and the post-intervention assessment were significantly higher than those of girls. The parenting programme must recognize children's gendered needs and adapt the programme to meet the unique needs of caregivers with children who are girls.
- We observe that children in smaller households (with fewer children) had larger child development gains than children in larger households (with more children). Therefore, the parenting programme should focus on supporting families and caregivers to adequately engage with all children in their early years, especially in multi-children households.
- We also find that predictors of child development varied for children in the two age groups. For the youngest children (aged 0–2), sex, household size and exposure to non-violent discipline were significant predictors of child development, while for the older age group (children aged 3–5) caregiver engagement and exposure to psychological aggression were associated with child development. Therefore, to meet the needs of each age group, the parenting programme should deliver targeted messages to caregivers in each age group through home visits or dedicated parenting sessions.

Learning priorities

- The evaluation shows that, in the short term (11 months after delivering the intervention), participation in the parenting programme has been associated with higher gains in child development outcomes for the intervention group. It will be beneficial to understand whether the impact of the intervention persists in the medium term (after 24 months) in advocating for a more expansive scale-up of the parenting programme.
- We find that the effect of the parenting programme on children's nutrition has been more limited in nature than on children's development outcomes. As a result, we must examine the limitations of the intervention in improving children's nutrition outcomes and better understand other factors that might affect children's nutrition.

1. INTRODUCTION

1.1. Background

This report presents the results from the quasi-experimental evaluation (pre-intervention and post-intervention assessment) of a parenting programme delivered to the beneficiaries of the government Child Grant Parenting Programme in Nepal. The Child Grant is a cash transfer programme implemented in 25 districts in Nepal aimed at reducing malnutrition for children below the age of five. The Child Grant is a monthly cash transfer programme that provides families with NPR 532 per child per month for up to two children per household below the age of five. The scheme initially only targeted Dalit children and children in Karnali district, but was later expanded to include all children in districts with low human development outcomes.

The parenting programme aims to enable social protection programmes like the Child Grant to have a more pronounced impact on children's holistic development alongside their nutritional outcomes. The thrust of the programme is to help parents become more conscious of ways to improve relationships with their children, have more enriching interactions with them and promote positive disciplining strategies. This will in turn pave the way for children's emotional, social and cognitive development. In addition, the parenting programme promotes effective household financial management and child nutrition practices. Therefore, this study will examine the impact of the programme on a range of caregiver-level and child-level outcomes, such as children's development, caregivers' engagement with their children (including the use of various disciplining practices with their children), caregivers' ability to effectively manage their household budget and children's nutrition outcomes.

This study followed 887 dyads of children and caregivers for a period of 11 months. Of the 887 dyads, 549 dyads included children aged 0–2, and the remaining 338 dyads included children aged 3–5. A total of 425 dyads were part of the intervention group that received the parenting programme in addition to the cash transfer received through the child grant scheme, while 462 dyads in the comparison group only received the cash transfer. This study surveyed the dyads at two points of time: once prior to the intervention (the pre-intervention assessment) and then 12 months after the pre-intervention assessment (the post-intervention assessment). The pre-intervention assessment took place in October 2020, and the post-intervention assessment took place in September 2021.

This study investigated the following research questions.

1) Did the parenting programme exhibit a positive impact on the intended outcomes of the parenting intervention? For which types of beneficiaries was the impact greatest/least?
2) How has the sample of children and caregivers changed over time with respect to children's development and nutrition outcomes and caregivers' parenting behaviours?
3) Given the results of the evaluation, how can the parenting programme be adapted to better meet the needs of the beneficiaries?

The rest of the report is organized as follows. Section 2 discusses the methods used to answer the research questions of this study. It provides details about sample size, sample attrition and the different instruments used to measure the intended outcomes. Section 3 presents the primary results of the evaluation including the primary predictors of child development outcomes. The final section (Section 4) discusses the conclusion and gives recommendations to inform the implementation of the parenting programme in future.

1.2. Intervention and context

As part of the Realizing the Rights of Children through Child Sensitive Social Protection Project in Nepal, Save the Children has designed a parenting programme for families that are beneficiaries of the Child Grant Programme. The parenting programme aims to strengthen caregivers' ability to support their children's development. In line with the

Nurturing Care Framework, the intervention aims to sensitize caregivers to provide children with adequate nutrition, responsive caregiving, protection from harm, opportunities for early learning and appropriate health services to boost children's overall development holistically.

The programme is delivered through a series of 12 weekly sessions to caregivers who receive the child grant. These sessions cover areas such as communication and stimulation in early childhood, budgeting household finances and children's nutrition. Most of these sessions are based on the International Child Development Program, which has been implemented in 43 countries so far. In addition to the weekly parenting sessions, home visits are made to all participants to provide caregivers with individualized support and guidance.[1]

The parenting sessions are delivered to groups of 8–12 participants by trained facilitators. The sessions are interactive, joyful, practical and based on the "everyday" experiences of the parents. Save the Children has been delivering the parenting programme since 2018 to caregivers in five municipalities in four districts of Nepal: Gaushala Municipality and Bardibas Municipality in Mahottari district; Dhulikhel Muncipality in Kavrepalanchowk district; Baiteshor Rural Municipality in Dolakha district; and Chhedagad Municipality in Jajarkot district.

2. METHODS

2.1. Study design

This study followed a quasi-experimental research design to assess the impact of the parenting programme offered to Child Grant beneficiaries on children's development and growth outcomes, caregivers' engagement with their children (including the use of various forms of maltreatment with their children) and caregivers' ability to effectively manage their household budget. It compared the intended outcomes for the child–caregiver dyads in the intervention group (who received the parenting programme) and dyads in the comparison group (who did not receive the parenting sessions). The dyads in our sample were assessed twice: prior to the commencement of the intervention (pre-intervention) and 11 months after the pre-intervention assessment data collection (post-intervention).

2.2. Sample

The prerequisite for inclusion in the study was participation in the Child Grant Programme. Across the two intervention municipalities (Bardibas Municipality and Gaushala Municipality). Households clustered together with children aged 0–5 were selected to participate in the parenting programme. The households in the intervention group were spread across eight wards. To ensure comparability between the intervention and comparison groups, a comparable municipality was chosen where households with children aged 0–5 were selected to participate in the study. Households in the comparison group were spread across five wards. Wards with socioeconomic characteristics (such as source of livelihood, levels of education and caste composition) similar to the intervention group were chosen as the comparison wards. The intervention wards included Wards 1, 4 and 7 in Bardibas Municipality and Wards 3, 6, 8, 9 and 12 in Gaushala Municipality. The comparison wards were Wards 7, 8, 9, 10 and 11 in Baluwa Municipality.

A sample of 887 caregiver–child dyads were assessed in the pre-intervention assessment. Of the 887 dyads, 425 dyads were in the intervention group and the remaining 462 dyads were a part of the comparison group. The sample reduced to 760 dyads in the post-intervention assessment. This represents an overall attrition of 14.3%. The post-intervention sample consisted of 353 dyads in the intervention group and 407 dyads in the comparison group. An attrition of 16.9%

[1] The contents of the parenting session can be found in the implementation guide for the sessions: A Parenting Programme for the Child Grant

and 11.9% was observed for the intervention and comparison group respectively. Table 1 presents details about the sample in the pre-intervention and post-intervention assessment.

Table 1: Sample size in the intervention and comparison group in the pre-intervention and post-intervention assessment

Treatment arm	Intervention group	Comparison group	Total
Children at pre-intervention	425	462	887
Children at post-intervention	353	407	760
Attrition (%)	16.9	11.9	14.3

To ensure that this attrition was not systematic, we compare caregivers' and children's outcomes of dyads in the intervention and comparison groups that dropped out of the study after the pre-intervention data were collection. For the children aged 0–2, no statistically significant difference was observed between the two groups. For the children aged 3–5, of the dyads that dropped out, the intervention group's average score was higher than the comparison group's average for one out of four of the child development domains.[2] Detailed information about the difference between caregivers' and children's outcomes for the two groups can be found in Annex A.

We also compare the caregivers' and children's outcomes between the dyads that dropped out after the pre-intervention data collection and those that did not drop out. For both age groups, apart from the caregiver engagement score, no statistically significant difference was found for all child and caregiver outcomes between dyads that dropped out after the pre-intervention data collection and those that did not drop out. Detailed results of this analyses can be found in Annex B. The regression analysis will control for outcomes for which statistically significant differences were observed.

2.3. Measurement

Several measurement instruments have been used for the data collection for this study. To measure children's development and early learning outcomes, we use different measurement instruments for the two age groups. For younger children (children aged 0–2) we use the Caregiver Reported Early Childhood Development Instruments (CREDI), and for the preschool-aged children (children aged 3–5) we use the International Development and Early Learning Assessment (IDELA). The Caregiver Engagement Scale is used to assess the frequency of caregivers' interactions with their children. We have also used the Parent–Child Conflict Tactics Scale to measure children's exposure to maltreatment inflicted by their caregivers. For the tools administered to caregivers to assess their interactions with children, caregivers were asked to identify one of their children in the target age group and to respond to the questions based on their experiences with the identified child. This child was designated as the "index" child for the purpose of this study. In addition, we have developed a new tool to assess the ability of caregivers to effectively manage their household finances. Finally, we have also collected background information, such as children's sex, age, caregivers' sex, age, level of education and the number of household possessions.

The assessment and the background questionnaire were administered in Nepali. The data were collected electronically through tablets and the assessors underwent week-long cascaded face-to-face training prior to the data collection. Save the Children International staff conducted this training. Table 2 presents details about the various data collection instruments.

[2] Children's development levels were assessed using the International Development and Early Learning Assessment (IDELA) for children aged 3–5. The assessment consists of four core domains: emergent literacy, emergent numeracy, social–emotional development and motor development. Details about the domains can be found in Section 2.

Table 2: Data collection instruments used in the pre-intervention and post-intervention assessment

Domains/items	Description/examples
Children's background characteristics	Children's age and sex
Caregivers' background characteristics	Caregivers' age, sex and level of education
Socioeconomic status	Number of possessions at home
CREDI (development of children aged 0–2)	
CREDI overall	The CREDI long form (with 117 items) was used to assess child development outcomes for children aged 0–2. CREDI provides overall and domain-specific scores based on caregiver reports about children's key development milestones and behaviours
Motor development	The motor development domain assesses children's ability to use fine and gross movements to explore and engage with their environments
Language development	The language development domain assesses children's ability to communicate their needs and desires and to understand what others are saying to them
Cognitive development	The cognitive development domain measures children's ability to pay attention, remember information, perceive and discriminate between objects and people in their environment, solve problems and acquire basic knowledge
Social–emotional development	Social–emotional development assesses children's ability to control their emotions and behaviours, understand one's feelings and get along with others
IDELA (development of children aged 3–5)	
IDELA overall	IDELA (with 22 items) is a direct assessment of children's development outcomes in the 3–5 age group. IDELA provides overall development and domain-specific scores covering five domains, of which one (executive function) is complementary and not included in the overall IDELA score
Emergent literacy	The emergent literacy domain assesses children's pre-literacy skills and consists of six subdomains. These subdomains are print awareness, letter identification, expressive vocabulary, emergent writing, sound discrimination and listening comprehension
Emergent numeracy	The emergent numeracy domain assesses the pre-numeracy skills that are essential for children's school readiness through seven subdomains. These subdomains are number identification, shape identification, sorting and classification, comparison by length and size, one-to-one correspondence, addition and subtraction and puzzle completion
Motor development	The motor development domain measures children's gross and fine motor skills through a combination of four subdomains. These

	subdomains are copying a shape, drawing a person, folding a piece of paper and hopping
Social–emotional development	The social–emotional development domain assesses children's social–emotional learning skills through five subdomains. The subdomains are self-awareness, solving conflict, empathy, emotional awareness and social relationships
Caregiver engagement and maltreatment	
Caregiver engagement	Eleven items ask caregivers about the various forms of interaction they have participated in with their children over the last seven days
Maltreatment (non-violent discipline)	Two items ask about the frequency of non-violent disciplining behaviours caregivers inflict on their children
Maltreatment (psychological aggression)	Three items ask about the frequency of different forms of psychological aggression caregivers inflict on their children
Maltreatment (physical violence)	One item asks about the frequency of different forms of physical violence caregivers inflict on their children
Maltreatment (neglect)	Four items ask about the different ways in which caregivers neglect their children and their frequency
Family budgeting	
Household savings and use	Information about current and past level of household savings and potential uses of household savings
Coping strategies	Information about different coping strategies caregivers plan to use in the event of an adverse event
Child nutrition	
Infant and young children's feeding practices	Mothers of children aged 0–2 were asked questions about breastfeeding practices, pre-lacteal feeding, complementary feeding, diet diversity, coverage of vitamin A and micronutrient supplementation, deworming and handwashing practices
Anthropometric measures	Children's height/length and weight were measured to calculate the prevalence of stunting, wasting and underweight among children

3. RESULTS

3.1. Background characteristics

A total of 760 dyads of children and caregivers participated in the post-intervention assessment. Of the 760 dyads, 456 included children aged 0–2 and 304 included children aged 3–5. Of the sample, 48% of the children were girls and 52% were boys. The youngest child in the sample was 11 months old and the oldest child was five years old. The average age for the sample was 2.57 years.

To assess the socioeconomic status of the household, caregivers were presented with a list of nine household items and asked whether they possessed any of them. On average, caregivers reported that their households possessed 4.6 out of

the nine household items. In addition, caregivers on average reported attending 4.63 years of education. Table 3 and Table 4 report the differences in background characteristics and IDELA/CREDI domains between the intervention and the comparison groups at the pre-intervention assessment stage. Detailed results about caregiver engagement, maltreatment, family budgeting and CREDI/IDELA domains in the post-intervention assessment are presented in the subsequent sections.

Table 3: Difference between the intervention and comparison groups in the pre-intervention assessment for children aged 0–2

Background characteristics	Total	Intervention	Comparison	Difference
Sex (percentage of females)	51	48	53	5
Children's age (in years)	23.63	24.27	23.09	1.18~
Non-violent discipline score (out of 4)	1.74	1.86	1.64	0.22
Physical aggression score (out of 4)	0.51	0.53	0.50	0.03
Psychological aggression score (out of 4)	0.75	0.85	0.68	0.17*
Neglect score (out of 4)	0.95	1.01	0.91	0.1
Caregiver engagement score	0.39	0.45	0.34	0.11***
Number of years of caregiver education	4.93	6.62	3.54	3.08***
Average number of household possessions	5.18	5.10	5.25	0.15
CREDI domains	Total	Intervention	Comparison	Difference
Language	48.42	48.71	48.20	0.51**
Motor	48.03	48.3	47.83	0.47*
Cognitive	48.08	48.39	47.84	0.55**
Social–emotional	47.97	48.29	47.73	0.56**
CREDI overall	48.13	48.42	47.89	0.53**

Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

Table 4: Difference between the intervention and comparison in the pre-intervention assessment for children aged 3–5

Background characteristics	Total	Intervention	Comparison	Difference
Sex (percentage of females)	45	46	44	2
Children's age (in years)	4.28	4.28	4.27	0.01
Non-violent discipline score (out of 4)	2.27	2.34	2.19	0.15
Physical aggression score (out of 4)	1.03	1.11	0.94	0.17~
Psychological aggression score (out of 4)	1.14	1.26	1.02	0.23**
Neglect score (out of 4)	1.20	1.47	0.93	0.54***
Caregiver engagement score	0.57	0.68	0.47	0.21***
Number of years of caregiver education	4	5.07	2.93	2.14***
Average number of household possessions	5.05	4.99	5.11	0.12
IDELA domains	Total	Intervention	Comparison	Difference
Emergent literacy	26	30	22	8***
Emergent numeracy	37	40	34	6**
Motor development	31	34	27	7**

Social–emotional development	33	38	27	11***
Executive function	30	35	24	11***
Approaches to learning	58	59	57	2
IDELA overall	32	37	29	8***

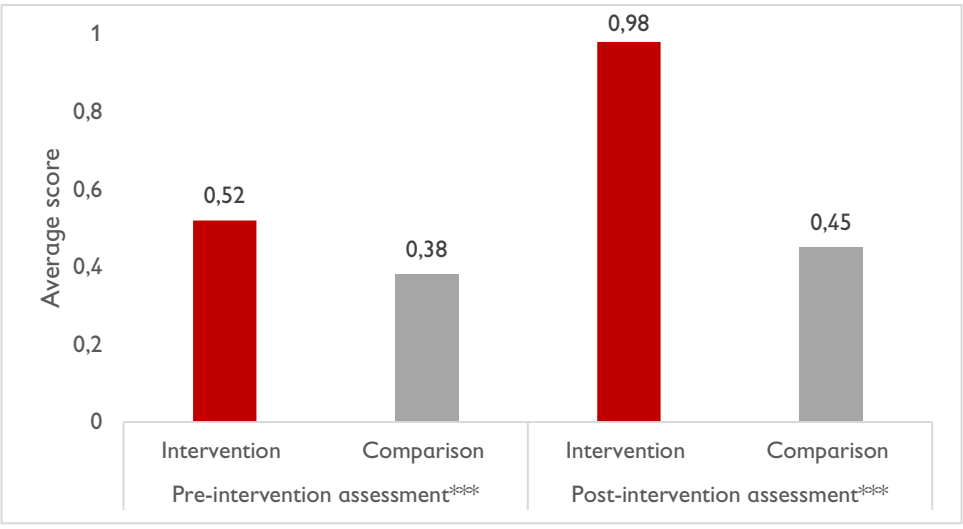
Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

3.2. Caregiver engagement

To assess caregivers' engagement with the index child, assessors read a series of statements to the caregivers about different interactions that they participated in with their children. The caregivers were required to respond whether they had engaged with their child on any of these activities over the course of the previous week. We calculated a caregiver engagement score by averaging the individual item scores for all statements in this domain with equal weights. The overall caregiver engagement score ranged from 0 (least engagement) to 1 (most engagement).

The caregiver engagement score was 0.52 for the intervention group and 0.38 for the comparison group in the pre-intervention assessment. The engagement score had increased for both groups in the post-intervention assessment, but the improvement for the intervention group was significantly greater than for the comparison group. The intervention group's average score was 0.97 and the comparison group's average score was 0.45 in the post-intervention assessment. Table 5 presents the average score for both groups for the individual items based on responses from caregivers.

Figure 1: Average caregiver engagement score for intervention and comparison groups in pre-intervention and post-intervention assessments



Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

Table 5: Difference between the intervention and comparison groups in the pre-intervention and post-intervention assessment based on responses from caregivers

	Pre-intervention assessment			Post-intervention assessment		
	Intervention	Comparison	Difference	Intervention	Comparison	Difference
Read books or look at picture books	0.31	0.16	0.15***	0.96	0.25	0.71***
Tell stories	0.32	0.20	0.12***	0.97	0.36	0.61***
Sing songs to the child	0.55	0.34	0.21***	0.99	0.41	0.58***
Take child outside	0.66	0.32	0.34***	0.99	0.54	0.45***
Play simple games	0.42	0.24	0.18***	0.97	0.36	0.61***
Name objects	0.30	0.13	0.17***	0.96	0.18	0.78***
Teach new things	0.56	0.38	0.18***	0.98	0.46	0.52***
Teach the alphabet	0.37	0.20	0.17***	0.96	0.30	0.66***
Teach numbers	0.34	0.24	0.10***	0.95	0.30	0.65***
Hug or show affection	0.99	0.96	0.03*	0.99	0.93	0.06***
Praise the child	0.94	0.95	0.01	1	0.80	0.20***

Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

These results are corroborated by additional analysis undertaken to study the impact of the parenting programme on caregivers' engagement with their children. In a direct observation of a parent–child activity that was assessed using the Parenting Interactions with Children: Checklist of Observations Linked to Outcomes (PICCOLO)[3] tool, it was observed that caregivers were more responsive to, encouraging of and affectionate towards their children in the post-intervention assessment. Through a qualitative assessment of caregiver engagement (the Three Minute Speech Sample),[4] caregivers were also found to have a deeper emotional bond with their children and were more aware of their children's feelings, interests and emotions in the post-intervention assessment.

3.3. Caregiver maltreatment

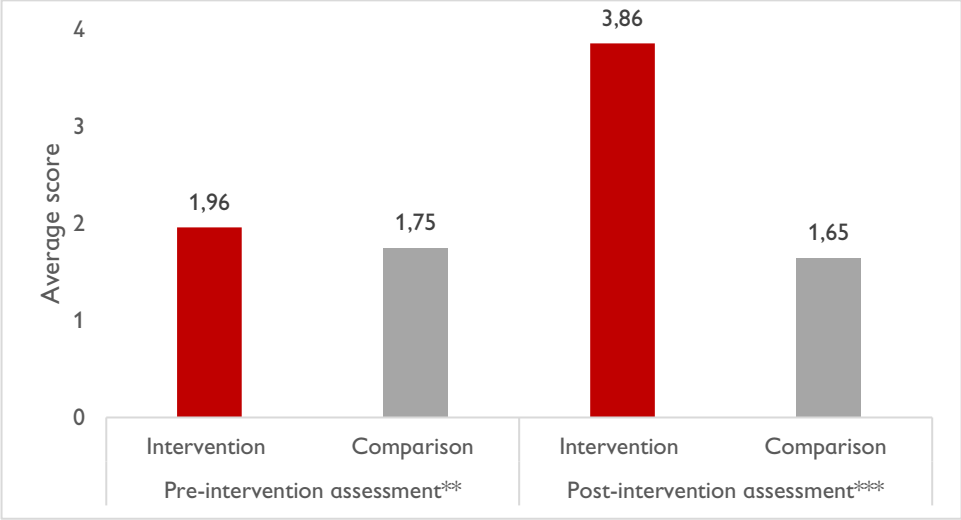
For measuring children's exposure to maltreatment, caregivers were asked questions about various forms of maltreatment that they inflicted on their children, and their frequency. The assessor read out several statements relating to different forms of maltreatment and caregivers were asked to report the frequency of using that form of maltreatment through selecting one of the five options: never, seldom, sometimes, often or always. The various forms of maltreatment were grouped into four subdomains: non-violent discipline, psychological aggression, physical violence and neglect. Subdomain scores are reported in the following sections. For each item in this domain, the scores ranged from 0 to 4, with 0 being "never" and 4 representing "always". Composite scores were also developed for each subdomain by averaging the individual item scores in the subdomain domain with equal weight. The subdomain scores also ranged on a scale of 0 to 4, with 0 being never and 4 representing always. An adapted version of the Parent–Child Conflict Tactics Scale (with fewer items than the original scale) was used to measure caregiver maltreatment. To ensure the validity of the tool, it was piloted with a group of caregivers in these regions who were not participating in the study.

[3] PICCOLO measures the quality of child–caregiver interaction through a direct observation of a parent–child activity. PICCOLO covers four key domains: affection, responsiveness, encouragement and teaching.
[4] The Three Minute Speech Sample through the Child Attachment Behaviour Scale measures the quality of the child–caregiver relationship.

3.3.1. Non-violent discipline

The average score for the sample increased to 2.67 in the post-intervention assessment from 1.85 in the pre-intervention assessment. The intervention group's average score (1.96) was significantly greater than the comparison group's average score (1.75) in the pre-intervention assessment. In the post-intervention assessment, we also observe that the intervention group's average score (3.86) was greater than the comparison group's average score (1.65). The difference was statistically significant. This shows that, in both assessments, caregivers in the intervention group used non-violent disciplining behaviours with their child more frequently than the caregivers in the comparison group. However, the increase in the use of non-violent disciplining behaviours between the pre-intervention and post-intervention assessment was greater for the intervention group than for the comparison group. Table 6 displays the individual item level scores for the intervention and comparison groups in the pre-intervention and post-intervention assessment.

Figure 2: Average non-violent discipline score for intervention and comparison groups in pre-intervention and post-intervention assessments



Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

Table 6: Item scores for the intervention and comparison groups in the pre-intervention and post-intervention assessment reported by caregivers

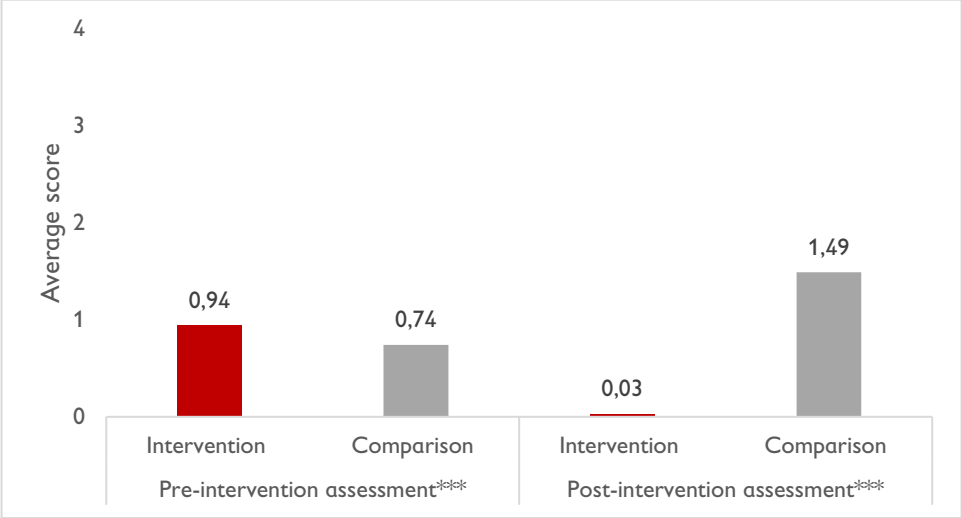
	Pre-intervention			Post-intervention		
	Intervention	Comparison	Difference	Intervention	Comparison	Difference
Explains why something is wrong	2.17	1.89	0.28***	3.87	1.73	2.14***
Gives child something else to do instead of what they are doing (if what they are doing is inappropriate)	1.85	1.71	0.14	3.85	1.59	2.26***

Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

3.3.2. Psychological aggression

The average score for the sample in the pre-intervention and post-intervention assessment was 0.83 and 0.82 respectively. In the pre-intervention assessment, the average score for the intervention group (0.94) was significantly greater than the average score for the comparison group (0.74). The average score for the intervention group dropped significantly in the post-intervention assessment and was lower than the comparison group's average score. This means that caregivers in the intervention group reported inflicting psychological aggression on their children less frequently than caregivers in the comparison group after their participation in the parenting programme. Table 7 displays the individual item level scores for the intervention and comparison groups in the pre-intervention and post-intervention assessment.

Figure 3: Average psychological aggression score for intervention and comparison groups in pre-intervention and post-intervention assessments



Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

Table 7: Item scores for the intervention and comparison groups in the pre-intervention and post-intervention assessment reported by caregivers

	Pre-intervention			Post-intervention		
	Intervention	Comparison	Difference	Intervention	Comparison	Difference
Shouted, yelled, cursed, or screamed at him/her	1.10	0.88	0.22***	0.05	1.69	1.64***
Threatened to spank or hit but did not do it	1.05	0.86	0.19***	0.03	1.62	1.59***
Called him her dumb, lazy or some other name	0.73	0.54	0.19**	0.03	1.15	1.12***

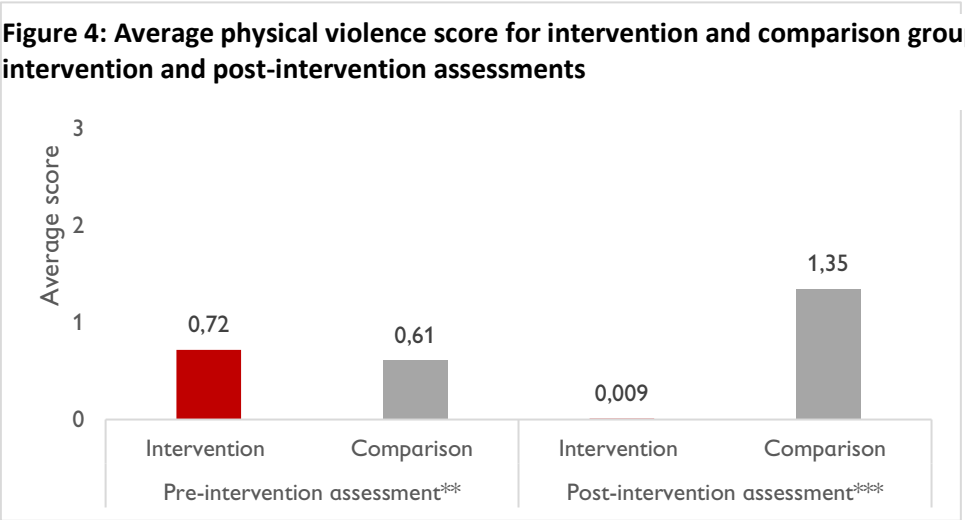
Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

3.3.3. Physical violence

The average score for the sample was 0.66 for the pre-intervention assessment and 0.73 for the post-intervention assessment. In the pre-intervention assessment, the intervention group's average score (0.72) was significantly higher

than the comparison group's average score (0.61), which means that caregivers in the intervention group used physical violence more frequently than caregivers in the comparison group. However, in the post-intervention assessment, we observe that the intervention group's average score was significantly lower than the comparison group's average score. In the post-intervention assessment, the intervention group's average score was 0.009 and the comparison group's average score was 1.35. This shows a greater reduction in the frequency of physical violence inflicted on children in the intervention group than for children in the comparison group. Table 8 displays the individual item level scores for the intervention and comparison groups in the pre-intervention and post-intervention assessment.

Figure 4: Average physical violence score for intervention and comparison groups in the pre-intervention and post-intervention assessments



Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

Table 8: Item scores for the intervention and comparison groups in the pre-intervention and post-intervention assessment reported by caregivers

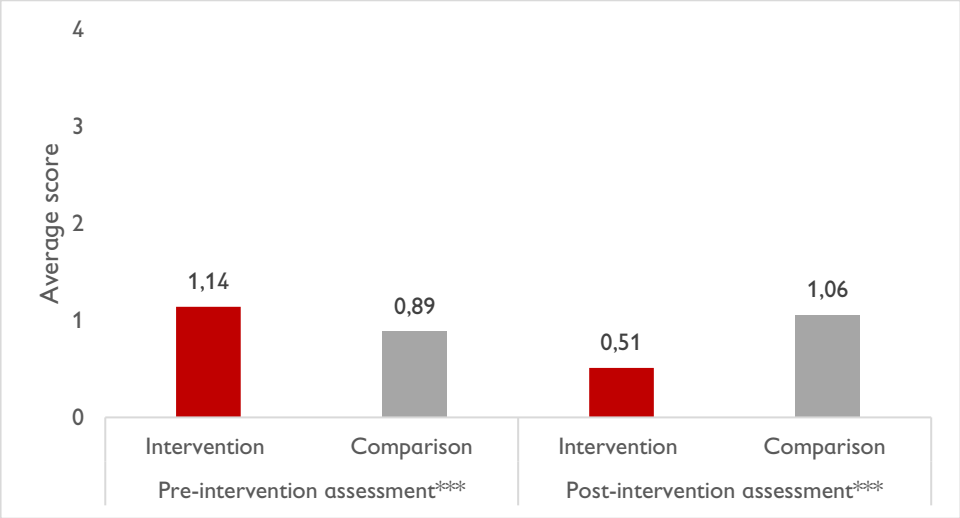
	Pre-intervention			Post-intervention		
	Intervention	Comparison	Difference	Intervention	Comparison	Difference
Spanked, slapped or hit the child	0.72	0.61	0.11*	0.009	1.35	1.341***

Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

3.3.4. Neglect

The average score for the sample in the pre-intervention and post-intervention assessment was 1.01 and 0.81 respectively. In the pre-intervention assessment, the average score for the intervention group (1.14) was significantly higher than the average score for comparison group (0.89). However, in the post-intervention assessment, the intervention group's average score reduced to 0.51 and was significantly lower than the comparison group's average score (1.06). This shows that caregivers in the intervention group neglected their children less frequently than caregivers in the comparison group after participating in the intervention.

Figure 5: Average neglect score for intervention and comparison groups in pre-intervention and post-intervention assessments



Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

Table 9: Item scores for the intervention and comparison groups in the pre-intervention and post-intervention assessment reported by caregivers

	Pre-intervention			Post-intervention		
	Intervention	Comparison	Difference	Intervention	Comparison	Difference
Had to leave the child home alone, even when you thought some adult should be with him/her	0.69	0.52	0.17***	0.05	0.90	0.85***
Unable to make sure that the child got to a doctor when s/he needed it	1.12	0.94	0.18*	0.38	0.80	0.42***
Unable to make sure the child got adequate food	1.77	1.33	0.44***	1.10	1.35	0.25**
Were so caught up with your own problems that you were not able to show or tell the child that you loved him/her	1.10	0.93	0.17*	0.52	1.22	0.70***

Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (

3.4. Family budgeting

Given the focus of the parenting programme on effective budgeting practices to manage household finances, caregivers were also asked questions relating to their household savings and coping strategies they might adopt during adversity in the pre-intervention and post-intervention assessments. A greater proportion of caregivers in the intervention group (63%) reported possessing savings than the comparison group (33%) in the pre-intervention assessment. The difference between the two groups was statistically significant. In the post-intervention assessment, the proportion of caregivers that reported possessing savings increased for both intervention (98%) and comparison (35%) groups. However, the increase for the intervention group was greater than the increase in the proportion of caregivers who reported possessing savings in the comparison group. Table 10 provides a summary of the level of savings possessed by the households in comparison to their savings 10 months previously.

Table 10: Proportion of caregivers with less, the same or more savings than 10 months previously in the intervention and comparison groups

	Pre-intervention			Post-intervention		
	Total	Intervention	Comparison	Total	Intervention	Comparison
Less	4	6	3	4	1	10
Same	54	49	69	38	26	65
More	42	45	27	58	73	24

Caregivers who reported possessing savings were asked about how they used those savings. Of the possible uses, six out of eight were classified as important, and two out of eight were classified as less important. Caregivers were encouraged to plan and manage their savings effectively in the parenting sessions. Table 11 presents a detailed summary of the potential uses of savings by caregivers in the sample for both categories of savings.

In the pre-intervention assessment, we observe that a significantly greater proportion of caregivers in the comparison group reported spending their savings on four out of the six uses classified as important and one of the two less important uses than the proportion of caregivers in the intervention group. In the post-intervention assessment, a greater proportion of caregivers in the intervention group reported using their savings for important purposes than the proportion of caregivers in the comparison group. For both of the less important uses of savings, the proportion of caregivers in the comparison group was greater than the proportion of caregivers in the intervention group. This shows that, after participating in the parenting programme, more caregivers in the intervention group spent their savings on important purposes.

Table 11: Uses of savings by caregiver in the intervention and comparison groups in the pre-intervention and post-intervention assessments

	Pre-intervention assessment			Post-intervention assessment		
	Intervention	Comparison	Difference	Intervention	Comparison	Difference
Use of savings for important purposes						
Children's education	84	82	2	99	85	14***
Health-related expenses	57	68	11**	99	78	21***
Special food for children	42	57	15***	87	39	48***
Emergencies (any unforeseen expenses)	58	61	3	85	57	28***
Purchase productive assets/investments	19	27	8*	18	19	1
Repay loan	21	37	16***	13	30	17***
Use of savings for less important purposes						

Social obligations and festivals	24	38	***	16	35	19***
Buying a desirable or luxury item	4	12	8**	0	7	7***

Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

Caregivers were also asked questions about the coping strategies they planned to adopt in times of adversity. Similarly, the coping strategies were classified as positive or less positive, and caregivers were informed about these strategies during the parenting session. In the pre-intervention assessment, a larger proportion of caregivers in the intervention group reported resorting to three out of six of the positive coping strategies than the proportion of caregivers in the comparison group. With respect to less positive coping strategies, a larger proportion of caregivers in the comparison group reported resorting to three out of seven of less positive strategies than the proportion of caregivers in the intervention group. In the post-intervention assessment, the proportion of caregivers in the intervention group that resorted to positive strategies increased further for five out of six of them. However, we observe that a larger proportion of caregivers in the intervention group reported that they planned to resort to two out of seven of the less positive strategies in times of adversity. Similarly, a larger proportion of caregivers in the comparison group also reported relying on two out of seven of the less positive strategies. Table 12 presents a detailed summary of the coping strategies that caregivers plan to adopt in the sample for both categories.

Table 12: Coping strategies used by the intervention and comparison group at times of adversity in the pre-intervention and post-intervention assessment

	Pre-intervention assessment			Post-intervention assessment		
	Intervention	Comparison	Difference	Intervention	Comparison	Difference
Positive coping strategies						
Sell something (land, livestock)	18	9	9***	21	4	17***
Use savings	49	25	24***	97	29	68***
Find more work for adults in the family	15	15	0	8	19	11***
Take a loan from a self-help group or cooperative	37	26	11***	35	33	2
Cut down on unnecessary items	13	12	1	51	22	29***
Ask the (local) government for assistance	8	10	2	1	7	6***
Less positive coping strategies						
Borrow money from a neighbour or relative	60	62	2	69	58	11***
Ask the community for help	14	14	1	17	15	2
Use jewellery or property as collateral (*dhito*)	26	18	8***	15	7	8***
Take a loan from a moneylender	58	78	20***	8	76	68***

Cut down on food	8	12	4**	1	12	11***
Take child/children out of school	0	2	2*	0	1	1
Ask child/children to help with work, earning income	0	0	0	0	1	1

Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

3.5. Child development and early learning

To measure child development and early learning skills, we used IDELA for children aged 3–5 and CREDI for children aged 0–2. IDELA covers four domains: emergent literacy, emergent numeracy, social–emotional development and motor development. In addition to the four required domains, there are two optional domains: executive function and approaches to learning. The overall IDELA score does not include the scores from the optional domains. There are four domains in CREDI: motor development, language development, social–emotional development and cognitive development. We expect that an improvement will be observed in social–emotional skills between the pre-intervention and the post-intervention assessment for both the intervention and comparison groups. The improvement for both groups can be attributed to the expected development progress over time. However, we hypothesize that the improvement for the intervention group will be higher than for the comparison group due to the parenting intervention.

3.5.1. CREDI (children aged 0–2)

The CREDI tool was used to assess younger children's (aged 0–2) learning and development across four domains: motor, cognitive, language and social–emotional development. The assessment provides two scores.

- Raw scores: The units for these scores are specific to CREDI and do not correspond to any other known metric.
- Norm-referenced standardized scores: these compare raw scores in each domain to the average score in the CREDI reference population of a particular age with an "ideal" home environment.[5] For most children, the norms-referenced score ranges between -2 and 2. A score of 0 thus means that a given child has a similar developmental status on that domain as the average child in the CREDI reference sample of the same age. A score of -1 means that the child's raw score is one SD below the same age average of the reference sample.

The CREDI team also recommends using norm-referenced standardized scores for comparisons across different domains. The raw scaled scores are ideal for undertaking hypothesis tests. For instance, we will use raw scaled scores to study whether a difference exists between the intervention and comparison groups' child development levels and to determine whether that difference is significant.

[5] According to the CREDI Scoring Manual (2018), the CREDI reference population comprises all children in the original CREDI database with an "ideal" home environment. Ideal home environments were defined through maternal educational attainment (college or higher), as well as through the number of activities carried out by adults with the child over the last three days (at least four out of the six MICS home stimulation activities): https://cdn2.sph.harvard.edu/wp-content/uploads/sites/74/2016/05/CREDI-Scoring-Manual-8-Jun-2018.pdf.

Table 13: Norms-referenced standardized and raw scores for the pre-intervention and post-intervention assessment for the entire sample

Domains	Raw scaled scores		Norm-referenced standardized scores	
	Pre-intervention	Post-intervention	Pre-intervention	Post-intervention
Language	48.42	50.37	-1.26	-0.92
Motor	48.03	50.47	-1.07	-0.61
Cognitive	48.08	50	-1.43	-1.05
Social–emotional	47.97	50.42	-1.26	-0.90
CREDI overall	48.13	50.21	-1.44	-0.86

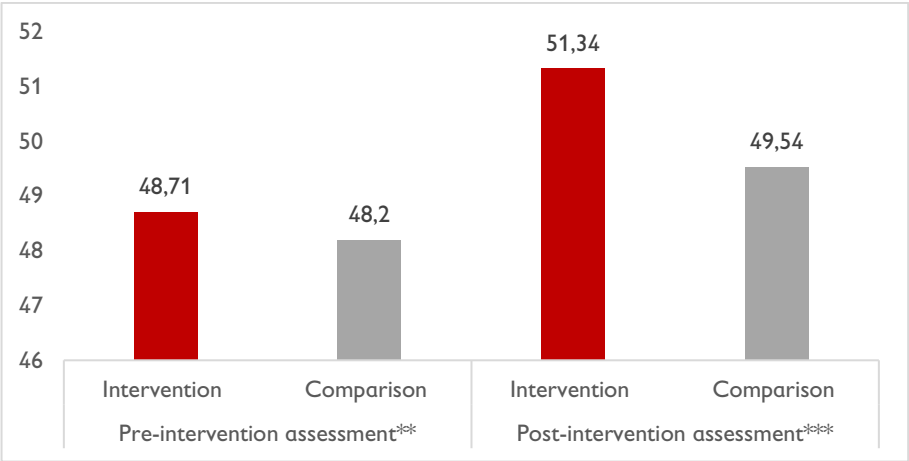
We observe that the overall CREDI and domain-specific raw scaled and norms-referenced standardized scores increased between the pre-intervention and the post-intervention assessment. We also find that, among all domains, children's motor development skills were strongest in the post-intervention assessment, while children continue to struggle most in cognitive development.

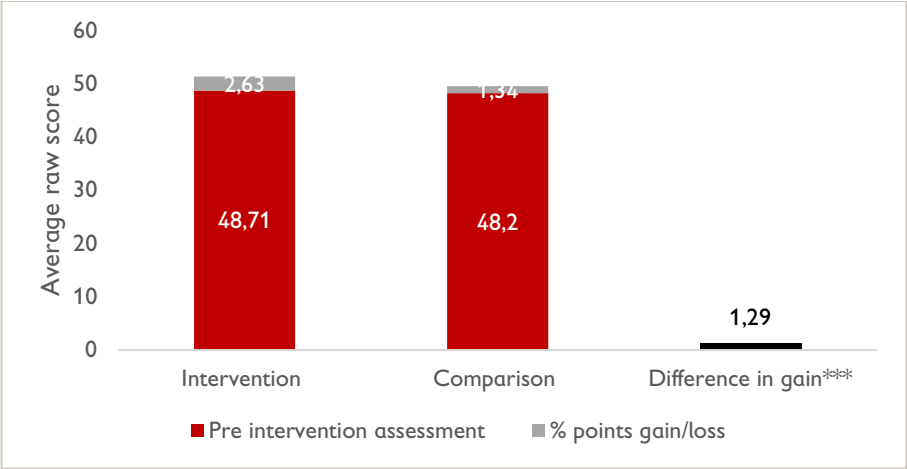
Language development

Through the language development domain, CREDI assesses children's ability to communicate their needs and desires and to understand what others are saying to them. The average raw score for the entire sample for the pre-intervention assessment was 48.49, and the post-intervention assessment score was 50.40. In the pre-intervention assessment, the average norm-reference standardized score for the entire sample was -1.26 SDs. This indicates that, at the pre-intervention stage, the sample's average score was 1.26 SDs lower than the average score of the CREDI reference group for each group. The average norm-referenced score increased to -0.92 SDs in the post-intervention assessment.

In the pre-intervention and post-intervention assessment, the intervention group's average raw score was higher than the comparison group's average raw score. The difference between the intervention and comparison group was statistically significant. For both groups, the average raw score increased between the pre-intervention assessment and the post-intervention assessment. An increase was observed for both groups due to expected development progress over time in childhood. However, the increase for the intervention group was higher than the increase for the comparison group. This difference was also statistically significant.

Figure 6: Language development: average raw score in pre-intervention and post-intervention assessment – difference in average gains for the intervention and comparison groups

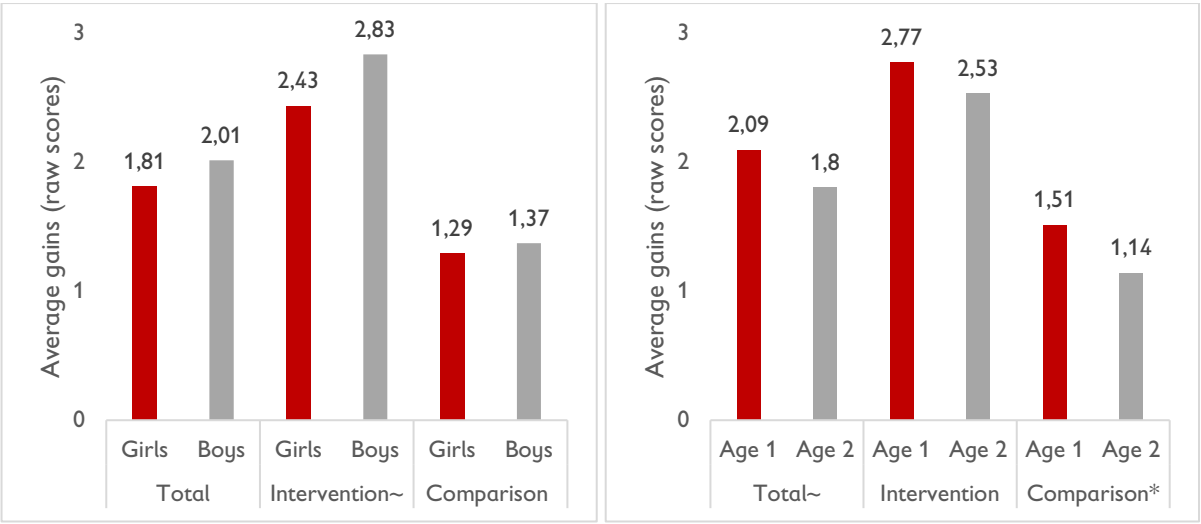




Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

We disaggregated the average gains between the pre-intervention and the post-intervention assessment for the language development domain by age and sex. We find that boys' average gains in the intervention group were higher than those of girls. We also observe that the average gains for one-year-old children exceeded the average gains for two-year-old children in the comparison group. This indicates that participation in the parenting programme benefits households with boys more than households with girls in terms of language development.

Figure 7: Average gains in language development raw scores disaggregated by sex and age in the intervention and comparison groups



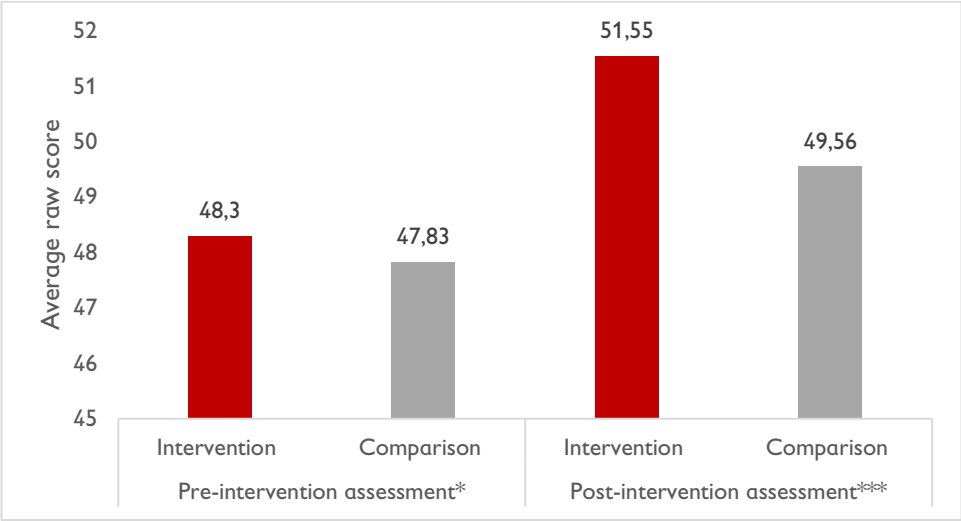
Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

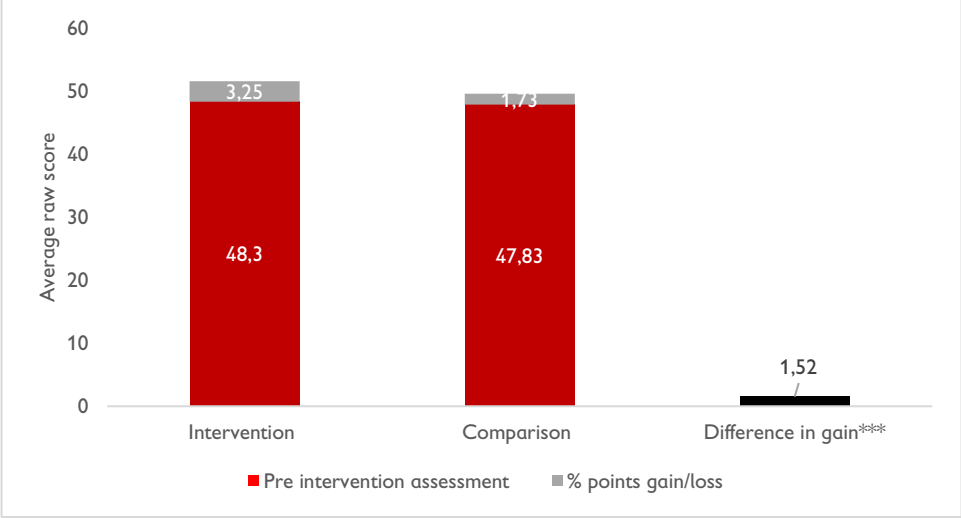
Motor development

The motor development domain in the CREDI assessment measures children's ability to use fine and gross movements to explore and engage with their environment. The average raw score for the entire sample for the pre-intervention assessment was 48.04, and the post-intervention assessment score was 50.51. In the pre-intervention assessment, the average norm-reference standardized score for the entire sample was -1.26 SDs, and the average norm-referenced score increased to -0.61 SDs in the post-intervention assessment. In the pre-intervention assessment, the intervention group outperformed the comparison group by 0.47 units. In the post-intervention assessment, the intervention group's average score was 1.99 units higher than the comparison group's average score. The average raw score increased between the pre-intervention assessment and the post-intervention assessment for the intervention and comparison

groups due to expected childhood development progress over time. However, the increase for the intervention group was higher than the increase for the comparison group.

Figure 8: Motor development: average raw score in pre-intervention and post-intervention assessment – difference in average gains for the intervention and comparison groups

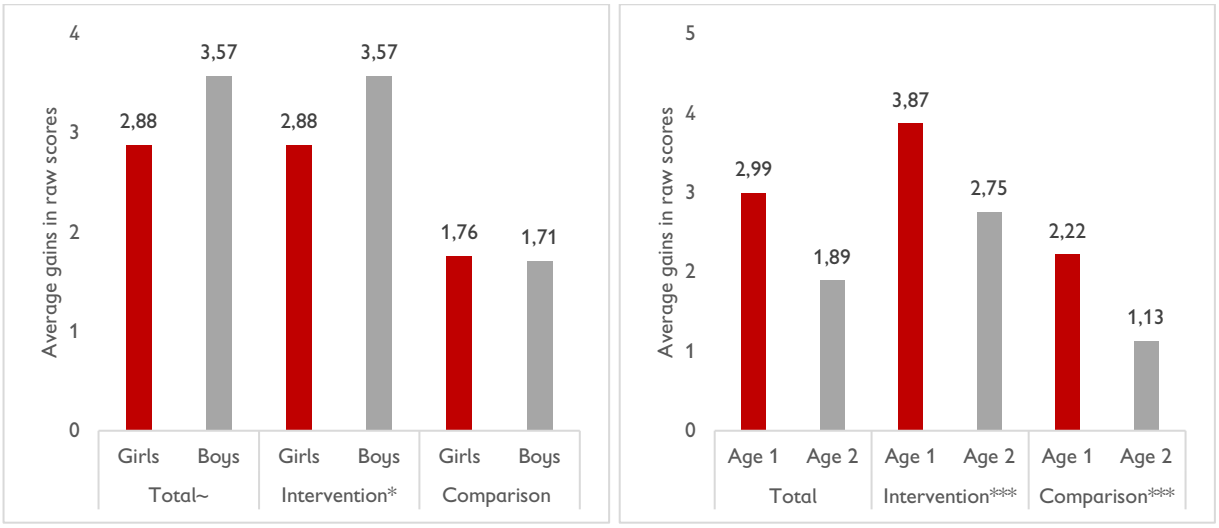




Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

Upon disaggregating the improvement between the pre-intervention and the post-intervention assessment in the raw scores for both groups by sex and age, we find that boys' average gains in the intervention group were significantly greater than those of girls, and that younger children (one-year-old children) benefited more than older children (two-year-old children) across both groups. This indicates that the parenting programme benefits boys more than girls in the younger age group for the motor development domain. These results also suggest that younger children display more rapid motor development progression than older children, regardless of participation in the parenting programme.

Figure 9: Average gains in language development raw scores disaggregated by sex and age in the intervention and comparison groups

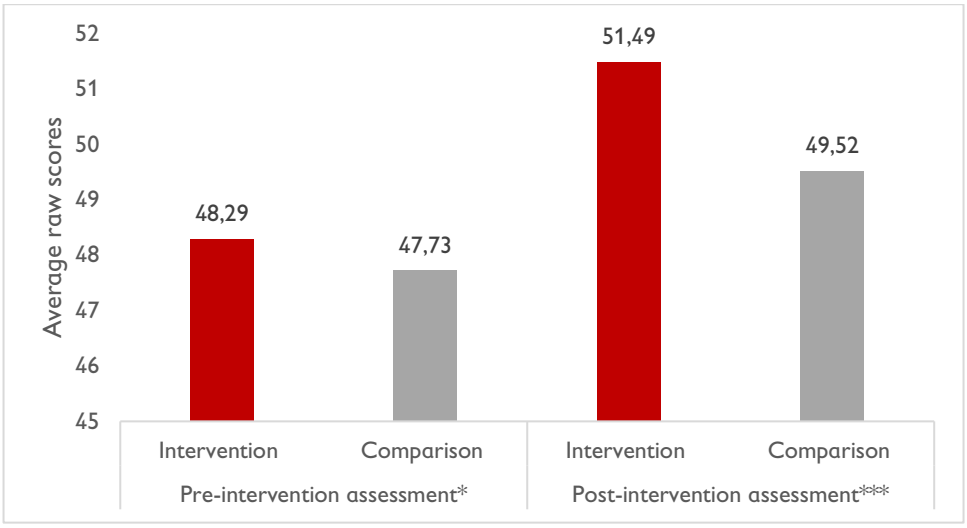


Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

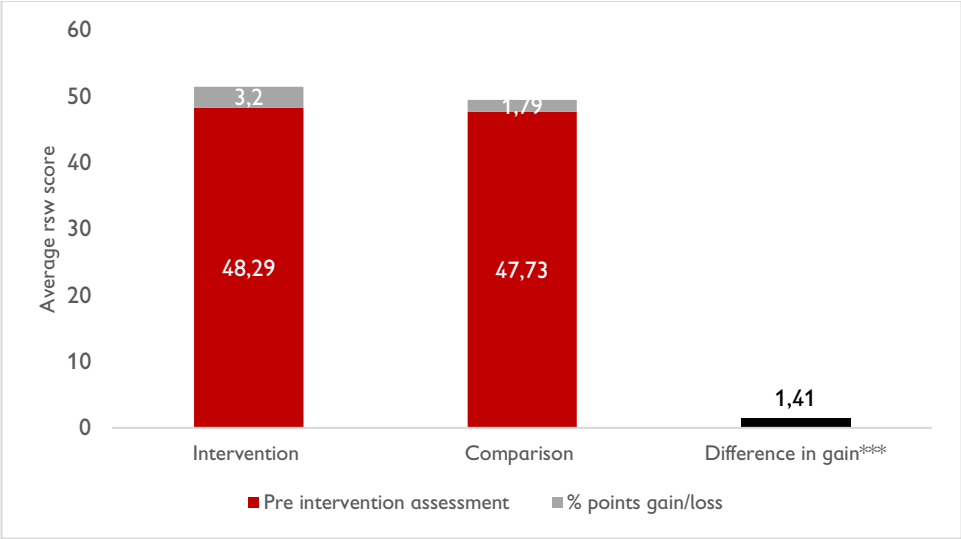
Social–emotional development

The social–emotional development domain assesses children's ability to control their emotions and behaviours, to understand one's feelings and to get along with others. The average raw score for the social–emotional development domain in the pre-intervention and post-intervention assessment was 47.98 and 50.45 respectively. In the pre-intervention assessment, the average norm-reference standardized score for the entire sample was -1.26 SDs, and the average norm-referenced score increased to -0.90 SDs in the post-intervention assessment.

Figure 10: Social–emotional development: average raw score in pre-intervention and post-intervention assessment – difference in average gains for the intervention and comparison groups



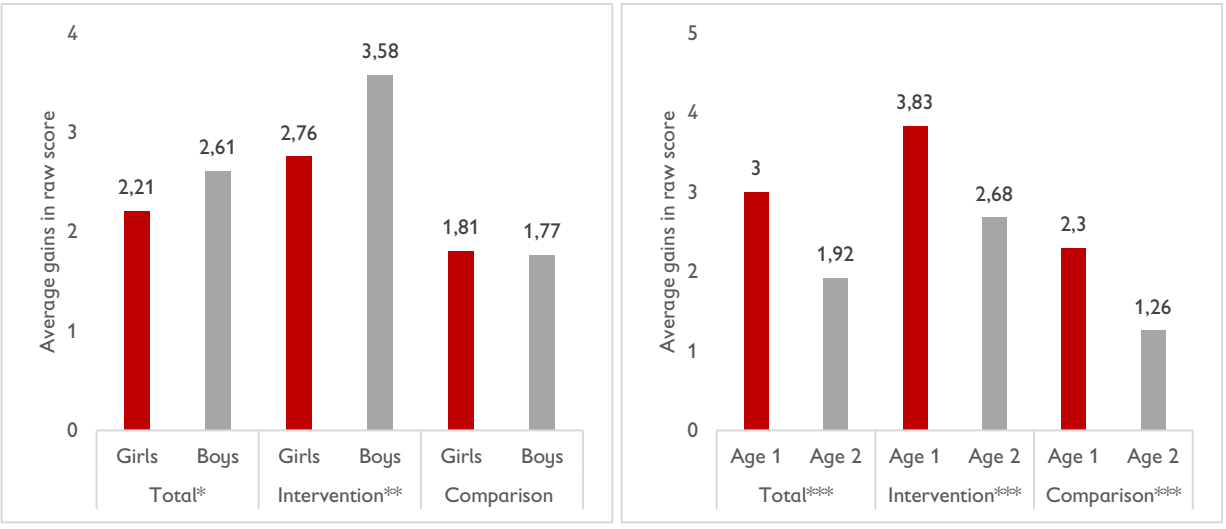
Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)



Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

We disaggregate the results for the intervention and comparison group by sex and age. We find that boys' average gains were significantly greater than those of girls in the intervention group and no statistically significant difference was observed between boys and girls in the comparison group. We also find that younger children's average gains were greater than those of the older children (two-year-old children) across both groups. This indicates that the parenting programme benefits boys more than girls for the social–emotional development domain. These results also suggest that participation in the parenting programme does affect social–emotional development differently for different age groups, and that younger children display more rapid progression in social–emotional development than the older children, regardless of their participation in the programme.

Figure 11: Average gains in social–emotional development raw scores disaggregated by sex and age in the intervention and comparison groups



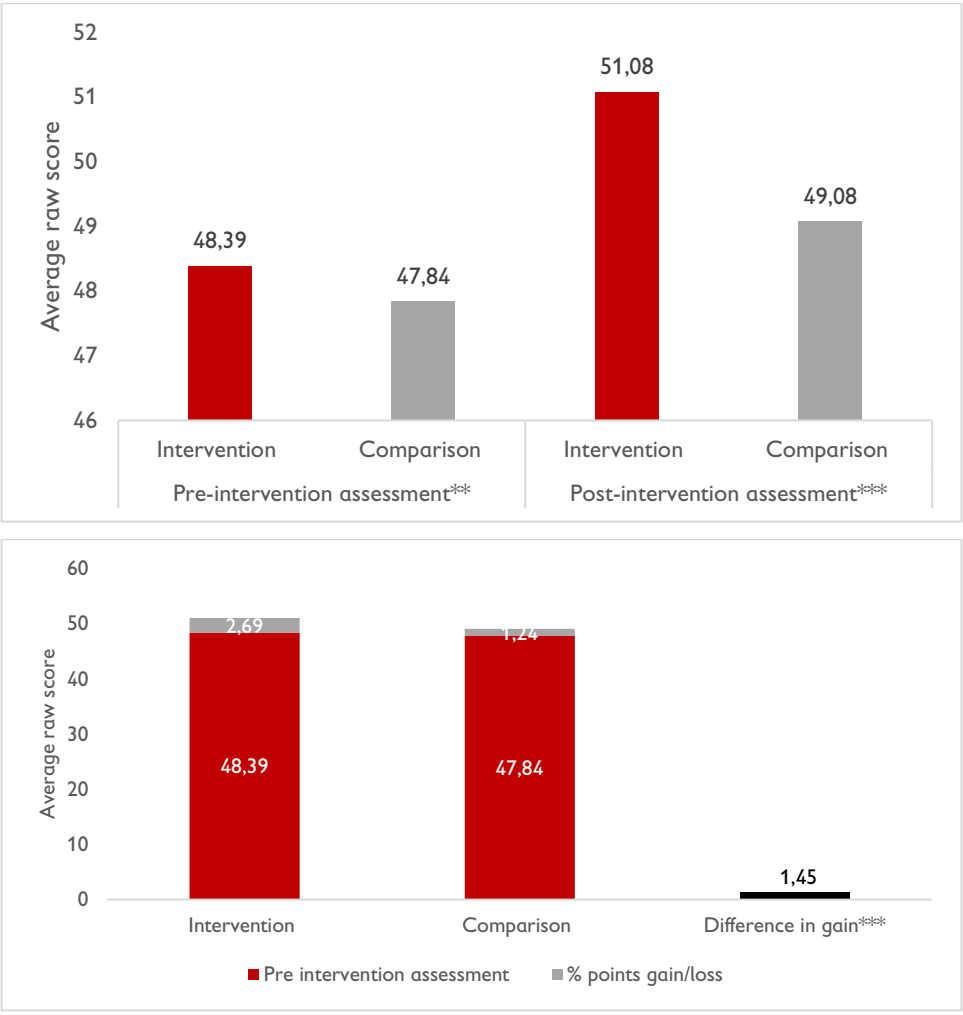
Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

Cognitive development

Through the cognitive development domain, the CREDI assessment measures children's ability to pay attention, remember information, perceive and discriminate between objects and people in their environment, solve problems and

acquire basic knowledge. In the pre-intervention assessment, the average raw score for the entire sample was 48.09 and, in the post-intervention assessment, the average score was 50.03. In the pre-intervention assessment, the average norm-reference standardized score for the entire sample was -1.43. The average norm-referenced score increased to -1.05 SDs in the post-intervention assessment. The intervention group's average raw score was higher than the comparison group's average raw score in the pre-intervention and post-intervention assessment. The difference between the two groups was statistically significant. The average raw score in the cognitive development domain increased for both groups due to the expected progression in childhood development over time. However, the improvement for the intervention group was higher than the improvement for the comparison group. The difference between the two groups was statistically significant.

Figure 12: Average raw score in pre-intervention and post-intervention assessment – difference in average gains for the intervention and comparison groups

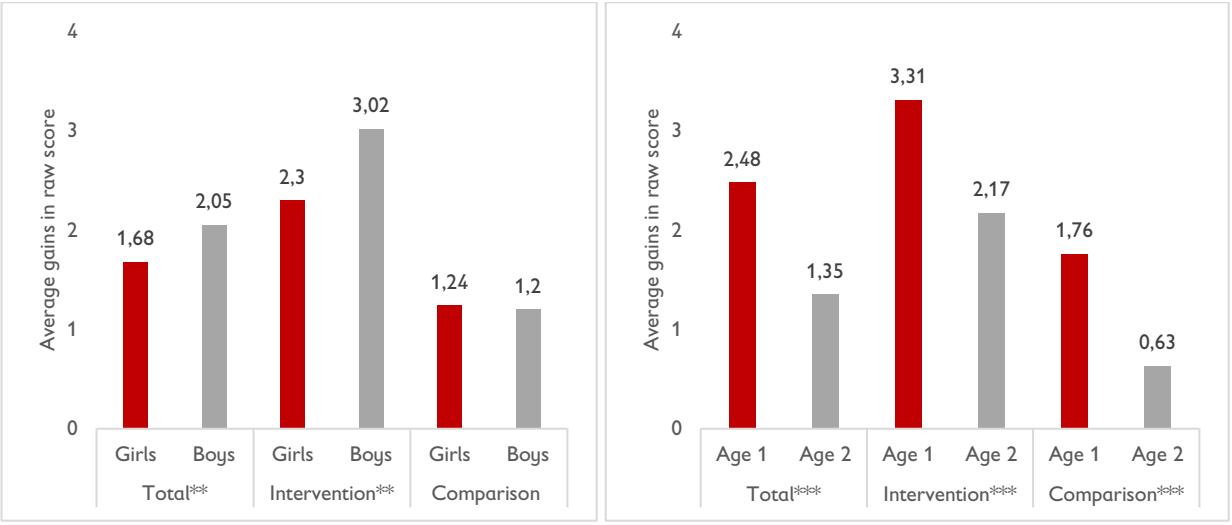


Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

The gains in the raw scores were disaggregated by sex and age for the intervention and comparison groups. We find that boys' average gains were significantly greater than those of girls in the intervention group and no statistically significant difference was observed between boys and girls in the comparison group. We also find that younger children's average gains were greater than those of the older children (two-year-old children) across both groups. This indicates that the parenting programme benefits boys more than girls for the cognitive development domain. These results also

suggest that participation in the parenting programme does affect cognitive development differently for different age groups and that younger children display more rapid cognitive development progression than the older children, regardless of their participation in the programme.

Figure 13: Average gains in cognitive development raw scores disaggregated by sex and age in the intervention and comparison groups



Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

3.5.2. IDELA (children aged 3–5)

This section details children's performance on the IDELA assessment. Total domain scores are calculated by adding the weighted score for each core domain (social–emotional development, emergent numeracy, emergent literacy and motor development) so that all domains contribute equally to the total score. The overall IDELA score and the domain scores are expressed as a percentage of the questions answered correctly in the entire assessment or the particular domain. Table 14 summarizes the results for all subdomains for the entire sample.

Table 14: Overall IDELA and domain scores for the entire sample

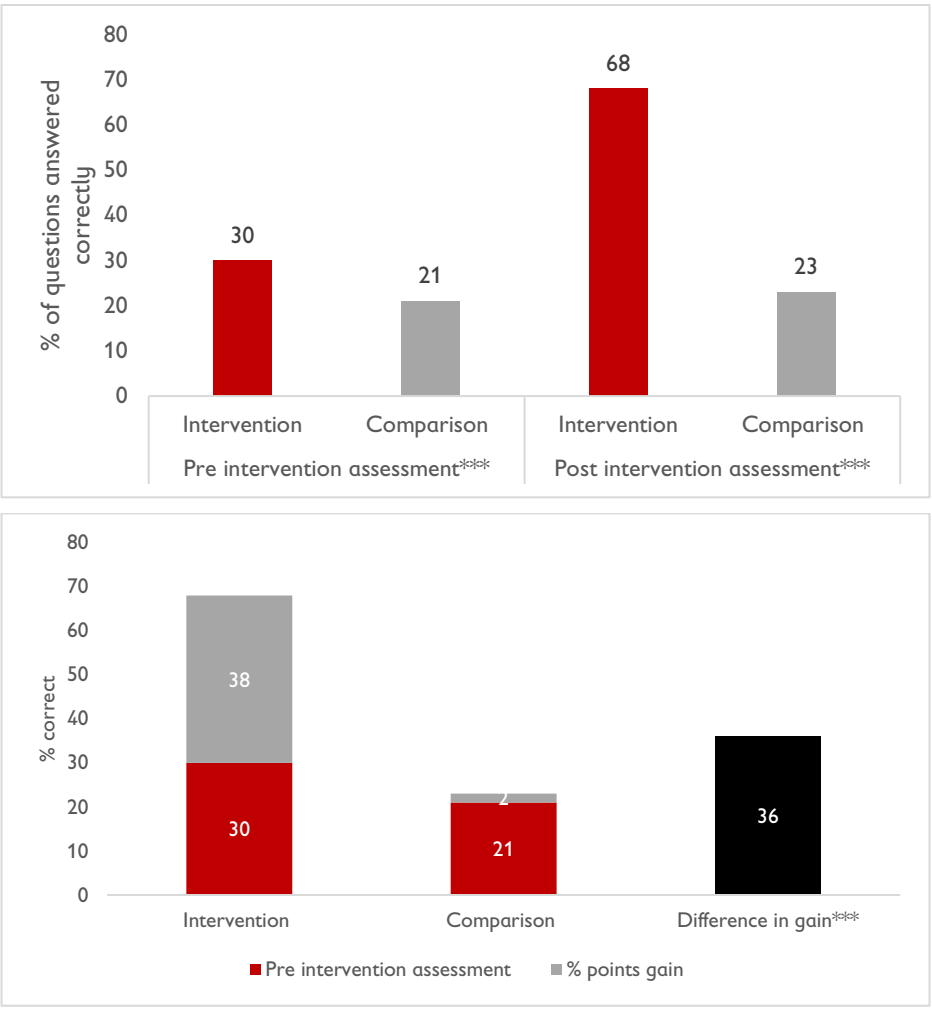
Domain	Pre-intervention assessment	Post-intervention assessment
Emergent literacy	26	46
Emergent numeracy	37	58
Motor development	31	60
Social–emotional development	33	56
Executive function	30	57
Approaches to learning	50	58
IDELA overall	32	56

We observe that the overall IDELA score (which excludes complementary domains, such as executive function and approaches to learning) increased between the pre-intervention and the post-intervention assessment. We also find that, among all core domains, children's average emergent numeracy skills were the highest in the post-intervention assessment, while children continue to struggle most in emergent literacy.

Emergent literacy

The emergent literacy domain assesses children's pre-literacy skills and consists of six subdomains. These subdomains include print awareness, letter identification, expressive vocabulary, emergent writing, sound discrimination and listening comprehension. The emergent literacy domain score is calculated by averaging children's scores in these six subdomains.

Figure 14: Percentage of questions answered correctly in the pre-intervention and post-intervention assessment – difference in average gains for both groups

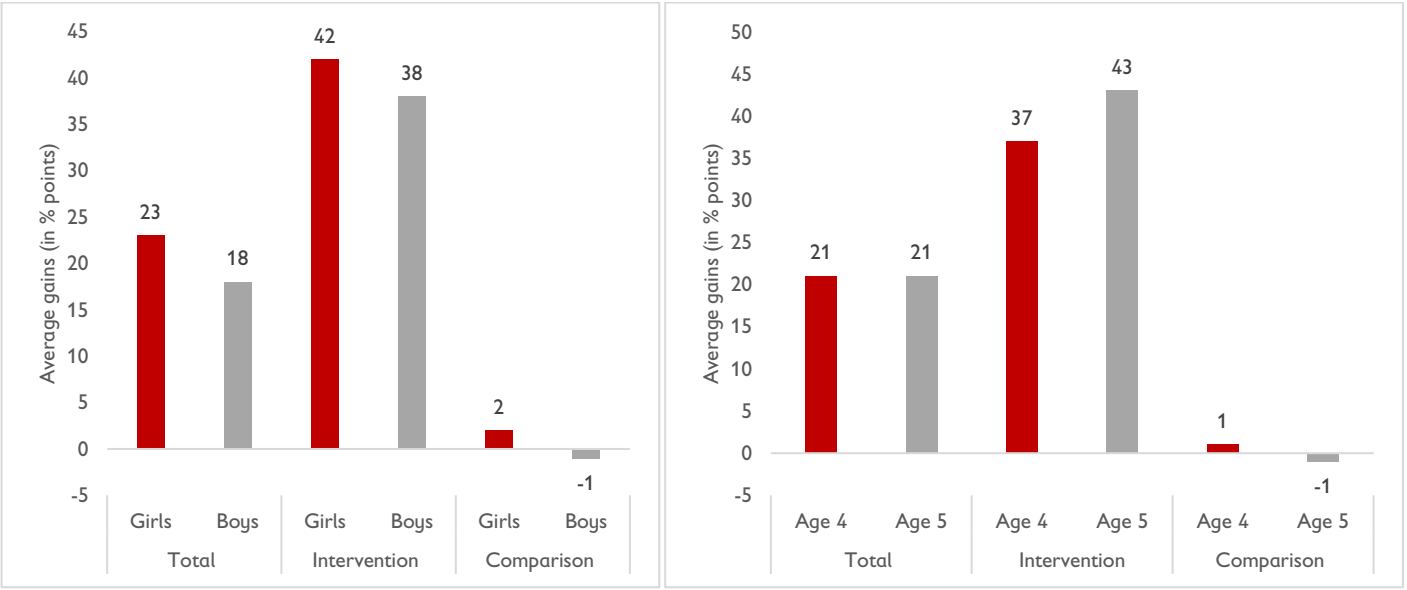


Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

In the post-intervention assessment, the average children's score in the emergent literacy domain was 45%. For this domain, the intervention group's average score was higher than the comparison group's average score in the pre-intervention and post-intervention assessment. We also observe that the intervention group's average gains between the pre-intervention and the post-intervention assessment were significantly higher than the comparison group's average gains. This indicates that the intervention group's average improvement between the pre-intervention and the post-intervention assessment was greater than the comparison group's average improvement. A small (but expected) gain was observed in the emergent literacy domain for the intervention and comparison group due to expected progress in childhood development over time. However, the greater increase for the intervention group can be attributed to their participation in the parenting programme. We also disaggregate the gains between the pre-intervention and the post-intervention assessment in the emergent literacy domain by sex and age.

We find no statistically significant differences between boys and girls or between younger and older children in the intervention or in the comparison group. This means that participation in the intervention group is not related to differentiated improvement in this domain for different subgroups (based on sex and age).

Figure 15: Emergent literacy scores disaggregated by sex and age in the intervention and comparison groups

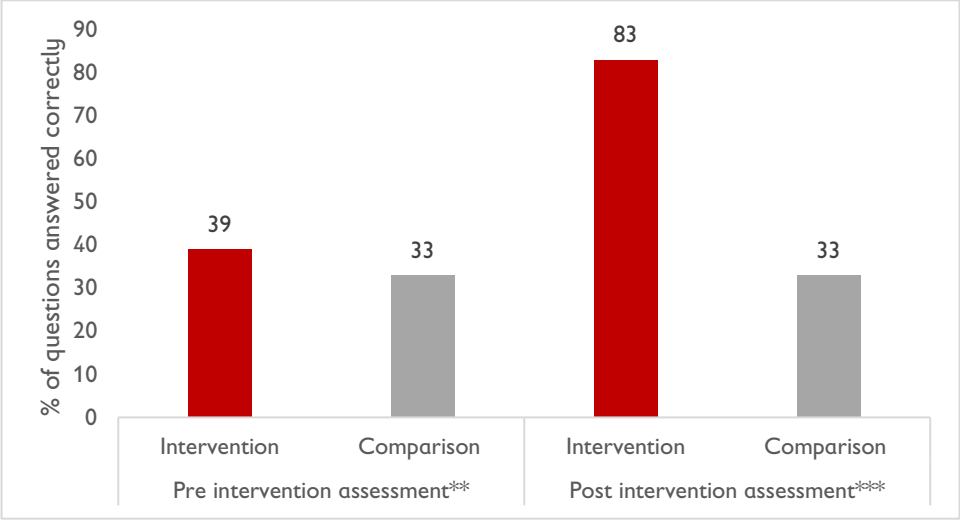


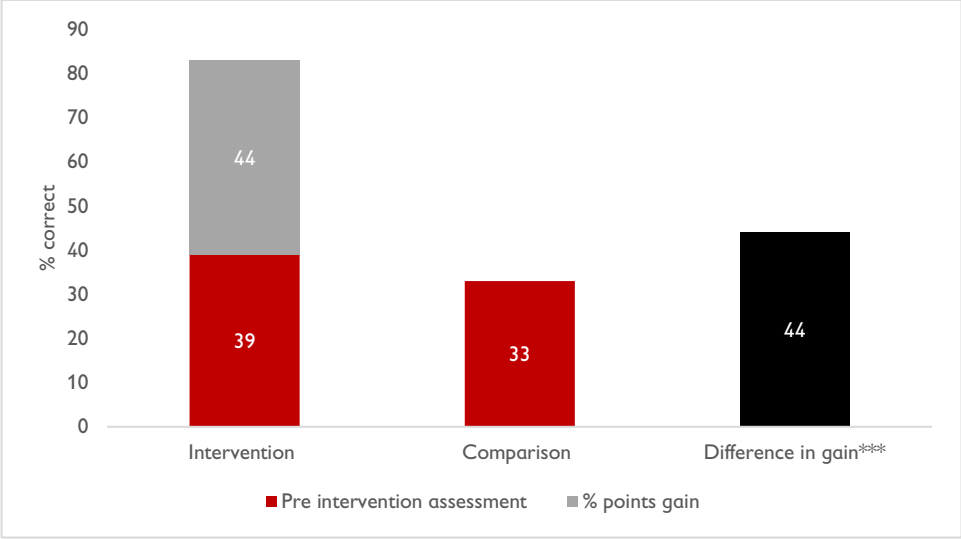
Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

Emergent numeracy

The emergent numeracy domain assesses the pre-numeracy skills of children, which are essential for school readiness, through seven subdomains: number identification, shape identification, sorting and classification, comparison by length and size, one-to-one correspondence, addition and subtraction and puzzle completion. Post-assessment scores for each subdomain for the intervention and comparison can be found in Annex C. In the post-intervention assessment, the average score of children in the emergent numeracy domain was 58%. In the pre-and post-intervention assessment, the intervention group's average score was significantly higher than the comparison group's average score.

Figure 16: Emergent numeracy: percentage of questions answered correctly in the pre-intervention and post-intervention assessment – difference in average gains for the intervention and comparison groups

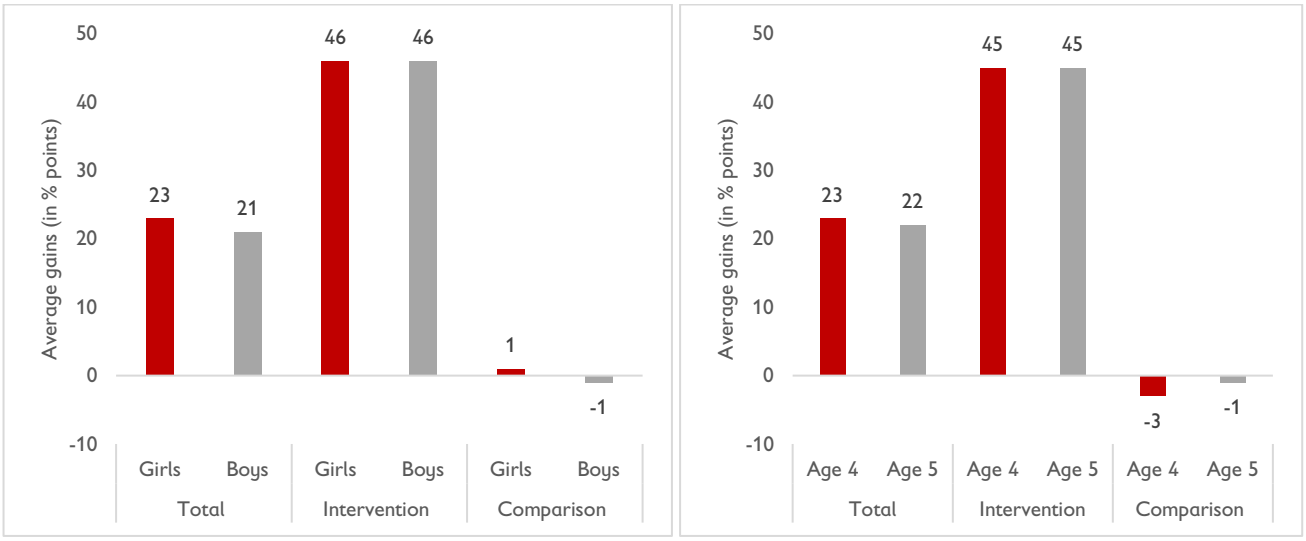




Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

However, in the post-intervention assessment, the difference between the pre-and post-intervention assessment average scores for the intervention was higher than the difference for the comparison group. This indicates that the improvement for the intervention group is significantly higher than the improvement for the comparison group. We also disaggregate the gain between the pre-intervention and the post-intervention assessment in the numeracy domain by sex and age. We find no statistically significant differences between boys and girls or between younger and older children in the intervention or comparison group. This means that participation in the intervention group is not related to a differentiated improvement in this domain for different subgroups (based on sex and age).

Figure 17: Gains in emergent numeracy scores disaggregated by sex and age in the intervention and comparison groups

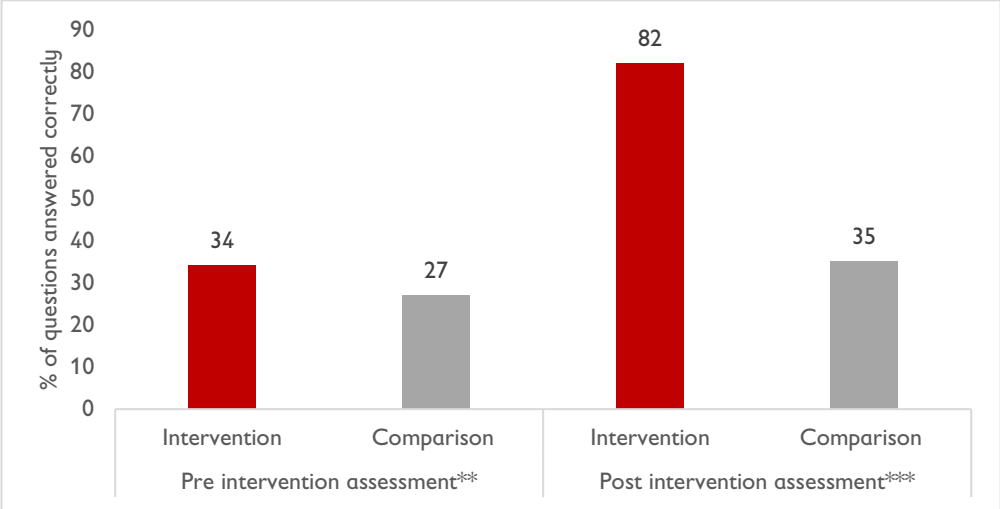


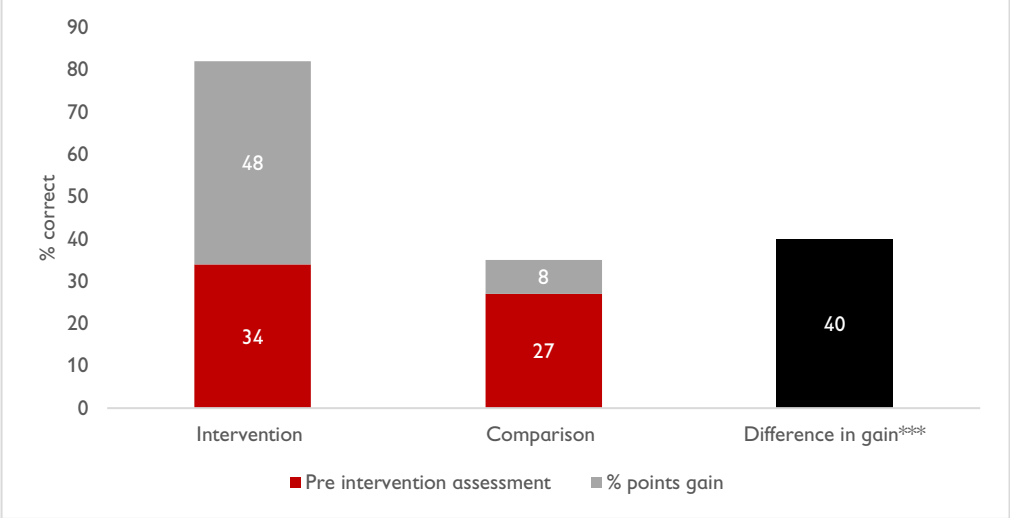
Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

Motor development

The motor development domain measures children's gross and fine motor skills through a combination of four subdomains: copying a shape, drawing a person, folding a piece of paper and hopping. In the post-intervention assessment, the average score for the post-intervention assessment for the motor development domain was 58%, and the pre-intervention assessment average score was 31%. In the pre-intervention and post-intervention assessment, the intervention group's average score was significantly higher than the comparison group's average score. We also observe that the improvement between the pre-intervention and the post-intervention assessment for the intervention group was higher than the average improvement for the comparison group. The difference in the average improvement between the two groups was statistically significant. The intervention group's average gains were 40 percentage points higher than those of the comparison group. A small (but expected) gain was observed in the motor development domain for the intervention and comparison group due to expected childhood development progress over time. However, the greater increase for the intervention group may be attributed to their participation in the parenting programme.

Figure 18: Motor development: percentage of questions answered correctly in the pre-intervention and post-intervention assessment – difference in average gains for both groups

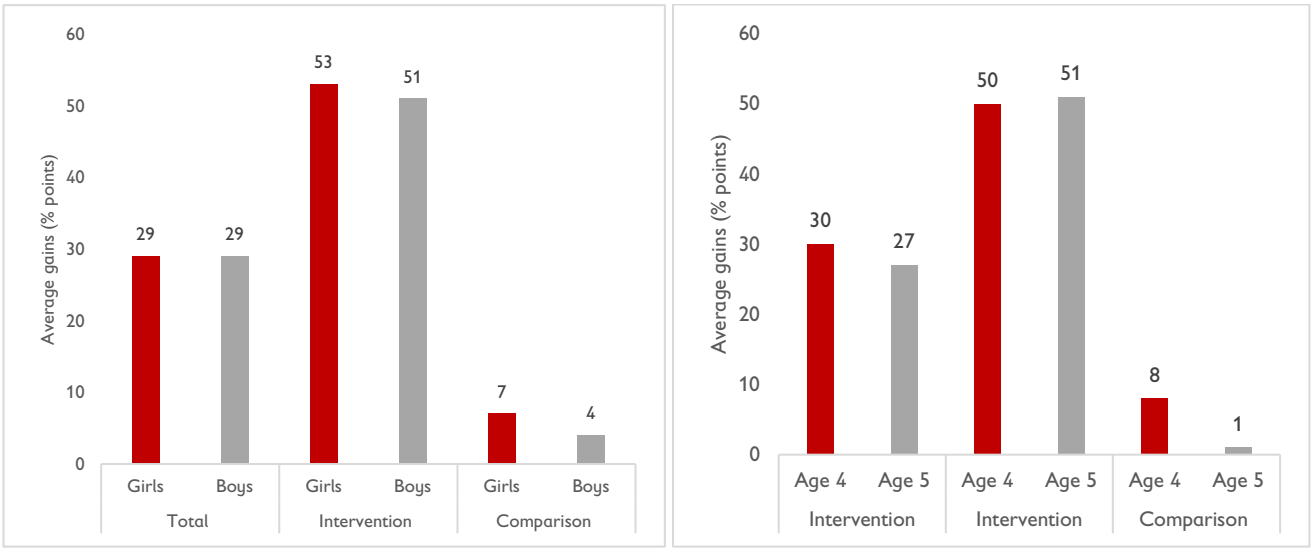




Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

Upon disaggregating the average gains between the pre-intervention and the post-intervention assessment by sex and age, we observe that the difference between boys and girls and between younger and older children was not statistically significant for either the intervention or the comparison group. This indicates that participation in the parenting programme did not close the gap between boys and girls or between younger and older children for this domain.

Figure 19: Gains in motor development scores disaggregated by sex and age in the intervention and comparison groups

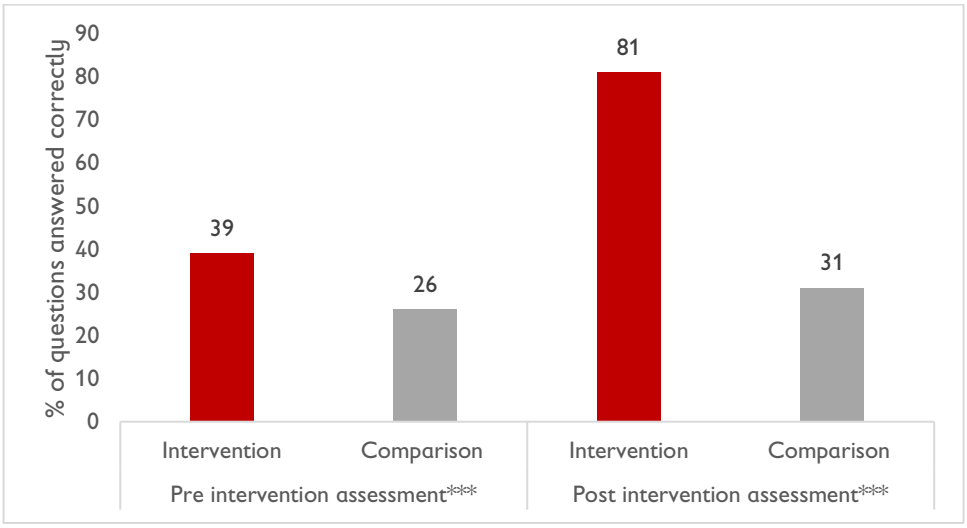


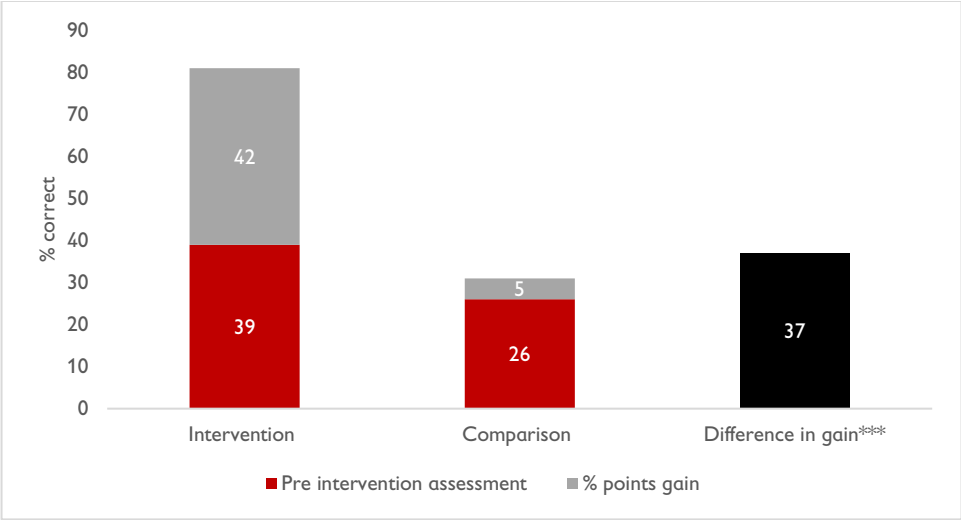
Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

Social–emotional development

This domain is used to assess children's social–emotional development through five subdomains: self-awareness, solving conflict, empathy, emotional awareness and social relationships. In this domain, the post-intervention assessment average score for the sample was 55% and the pre-intervention assessment average score was 33%. In the pre-intervention and post-intervention assessment, the intervention group significantly outperformed the comparison group. We also observe that the intervention group's average gains between the pre-intervention and the post-intervention assessment were 37 percentage points higher than those of the comparison group. The difference between the average gains for the two groups was statistically significant. Children's performance for each subdomain in the social–emotional development domain can be found in Annex C.

Figure 20: Percentage of questions answered correctly in the pre-intervention and post-intervention assessment – difference in average gains for both groups

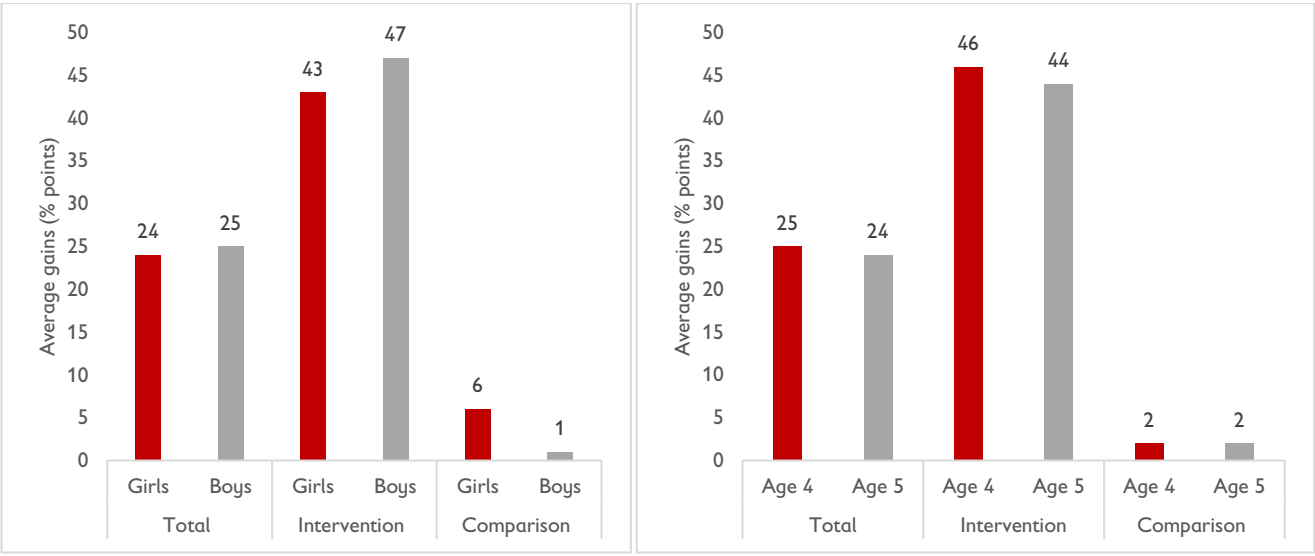




Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

We also disaggregate the average gains for the social–emotional development domain by sex and age in each group. We find no statistically significant difference between the average gains for girls and boys in the intervention or comparison groups. Similarly, the difference between the average gains for four-year-old and five-year-old children was not statistically significant. This shows that participation in (or exclusion from) the parenting programme did not cause inequitable improvement in this domain among the various subgroups based on sex and age.

Figure 21: Gains in motor development scores disaggregated by sex and age in the intervention and comparison groups



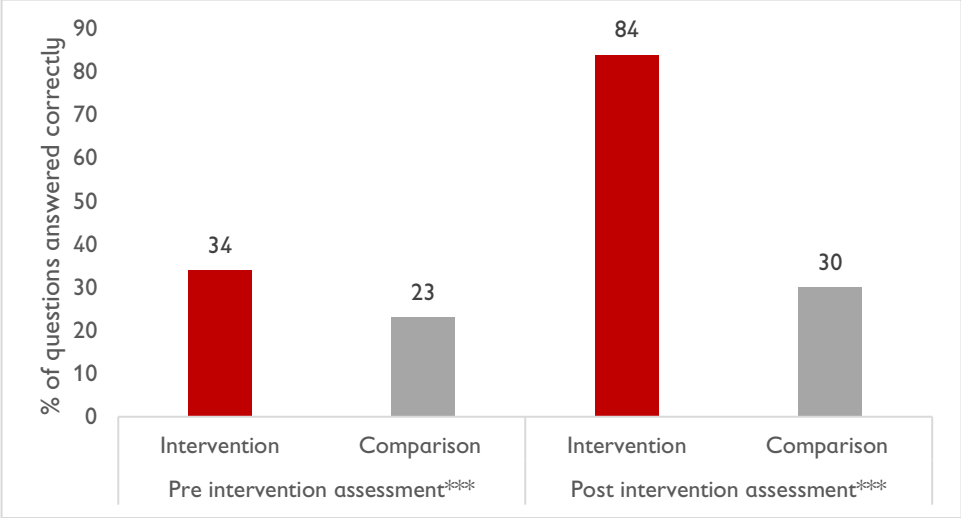
Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

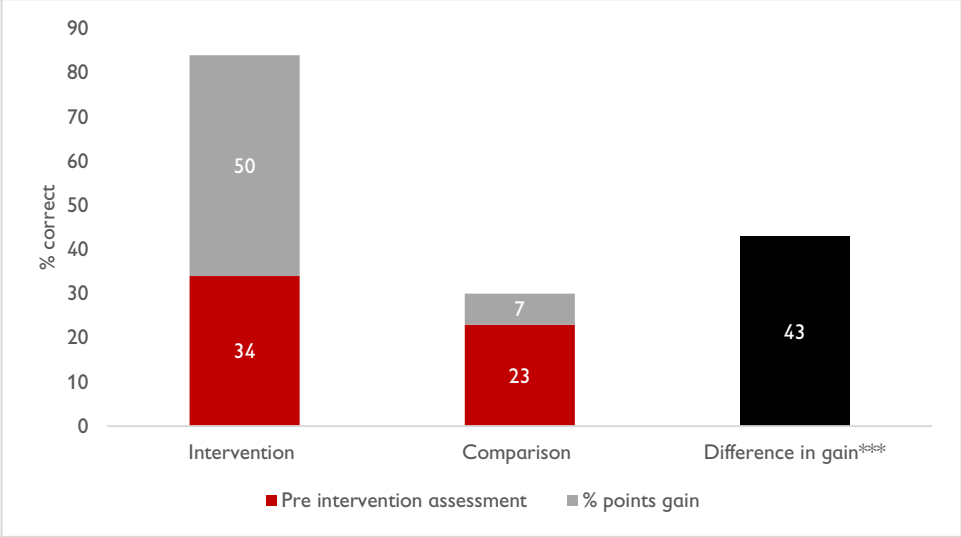
Executive function

The executive function is a complementary domain for IDELA, and therefore the results for this subdomain are not included in the overall IDELA results. The results for this domain are calculated as an average of the scores in two subdomains. The subdomains are memory and inhibitory control. In the executive function domain, the pre-intervention

assessment average score for the entire sample was 29%, and the post-intervention assessment average score was 56%. The intervention group's average score was significantly higher than the comparison group's average score in both assessments. Even though an improvement between the pre-intervention and the post-intervention assessment was observed for both groups, the intervention group's average improvement was significantly higher than the comparison group's average improvement.

Figure 22: Executive function: percentage of questions answered correctly in both assessments – difference in average gains for the intervention and comparison groups

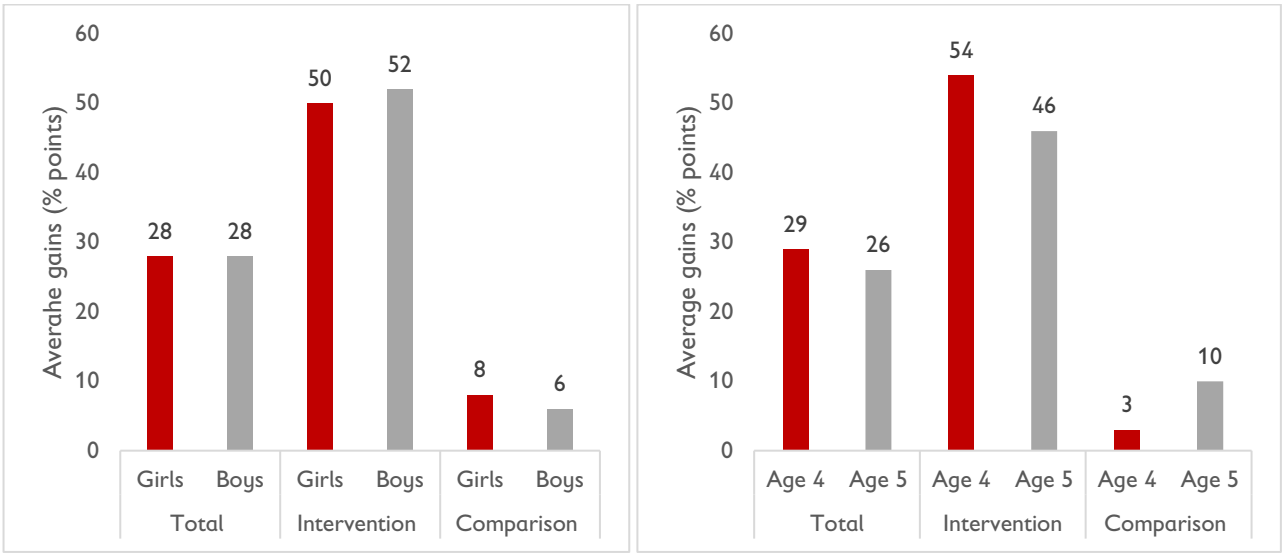




Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

We also disaggregate the average gains for the executive function by sex and age in each group. We find no statistically significant difference between the average gains for girls and boys in the intervention and comparison group. Similarly, the difference between the average gains for four-year-old and five-year-old children was not statistically significant. This means that participation in the intervention group was not related to a differentiated improvement in this domain for different subgroups (based on sex and age).

Figure 23: Gains in executive function scores disaggregated by sex and age in the intervention and comparison groups



Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

3.6. Predictors of child development

This section presents the results of the multivariate regression analysis used to explore the relationship between child development outcomes and children's sex, children's age, participation in an early child development (ECD) programme, caregivers' level of education, number of household possessions and the frequency of caregivers' interactions with children (including various forms of maltreatment). We also used the multivariate regression analyses to assess the impact of the parenting programme on children's development levels. Detailed results from the multivariate regression analyses can be found in Annex D and Annex E.

For children aged 0–2, we observe that participation in the parenting programme led to improved development outcomes among children for all domains of the CREDI assessment. We observe that the intervention group's average gains between pre-intervention and post-intervention in various CREDI domains significantly exceeded the average gains for the comparison group. The average gains ranged from 0.64 SDs to 0.85 SDs. In the older age group (children aged 3–5), we find that the average gains for the intervention group were also greater than the average gains for the comparison group for all IDELA domains. The difference between the two groups was statistically significant. The average gains ranged from 0.30 SDs to 0.39 SDs.

We also observe a statistically significant relationship between gains in some CREDI domains between pre-intervention and post-intervention and children's sex, the number of children in the household, exposure to non-violent discipline and caregiver engagement. We observe that girls experienced lower gains than boys in three out of four CREDI domains. For each additional child in the household, the average gains dropped by 0.04 SDs in the overall CREDI score. Children exposed to a greater frequency of non-violent disciplining behaviours displayed smaller gains (by 0.06 SDs) in their overall CREDI scores than children whose exposure to non-violent discipline was lower. With each additional caregiver engagement activity, the average gains in the overall CREDI score increased by 0.09 SDs.

For children aged 3–5, we find statistically significant relationships between IDELA domains and children's exposure to psychological aggression, neglect and caregiver engagement. Children exposed to a greater frequency of psychological aggression displayed smaller gains their motor development (0.05 SDs) and social–emotional development domain (0.05 SDs) scores than children whose exposure to psychological aggression was lower. Similarly, children who were neglected more frequently by their caregivers had lower gains in the emergent literacy domain (0.05 SDs) than children whose

exposure to neglect was less frequent. We also observe that, with each additional caregiver engagement activity, the average gains in the emergent literacy domain increased by 0.01 SDs.

3.7. Child nutrition and growth

The period from birth to the age of two is a critical window for promoting optimal growth, health and cognitive development. Adequate and diverse nutrition via appropriate infant and young child feeding practices during infancy and early childhood is fundamental to child development. To assess whether children were receiving adequate and diverse nutrition, mothers were asked to recall the food consumed by their children during the 24 hours preceding the survey. This information was used to compute measures of dietary diversity, minimum meal frequency and minimum acceptability of the child's diet. The following results are for children aged 6–23 months.

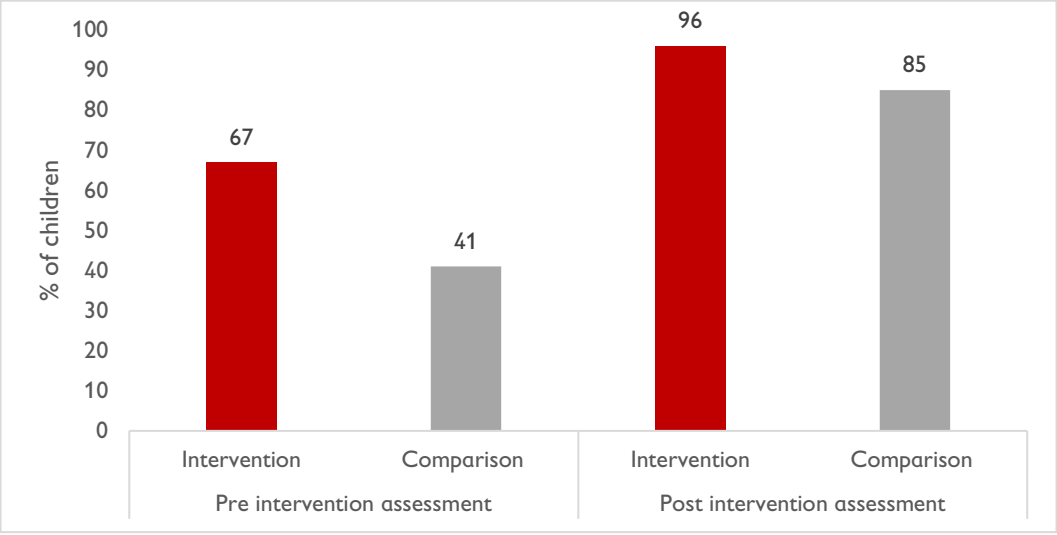
Children's length/height and weight were measured to assess the prevalence of malnutrition in our study sample. Using the growth standards published by the World Health Organization, indicators of malnutrition for children were calculated. These indicators include weight-for-age z-score (underweight: WAZ), length/height-for-age z-score (stunting: LAZ/HAZ) and weight-for-length/height z-score (wasting: WLZ/WHZ).

3.7.1. Minimum dietary diversity

Minimum dietary diversity is defined as the consumption of at least four of the seven main food groups during the previous day by children aged 6–23 months. The seven food groups are grains, roots and tubers, legumes and nuts, dairy products (milk, yoghurt and cheese), flesh foods (meat, fish, poultry and liver/organ meats), eggs, vitamin A-rich fruits and vegetables and other fruits and vegetables.

The proportion of children in the sample with diverse diets increased from 54% in the pre-intervention assessment to 91% in the post-intervention assessment. In the pre-intervention assessment, we find that a larger proportion of children in the intervention group (67%) consumed a diverse diet than the proportion of children in the comparison group (41%). The difference between the intervention and comparison groups decreased in the post-intervention assessment. Ninety-six percent of children in the intervention group and 85% of children in the comparison group consumed a diverse diet.

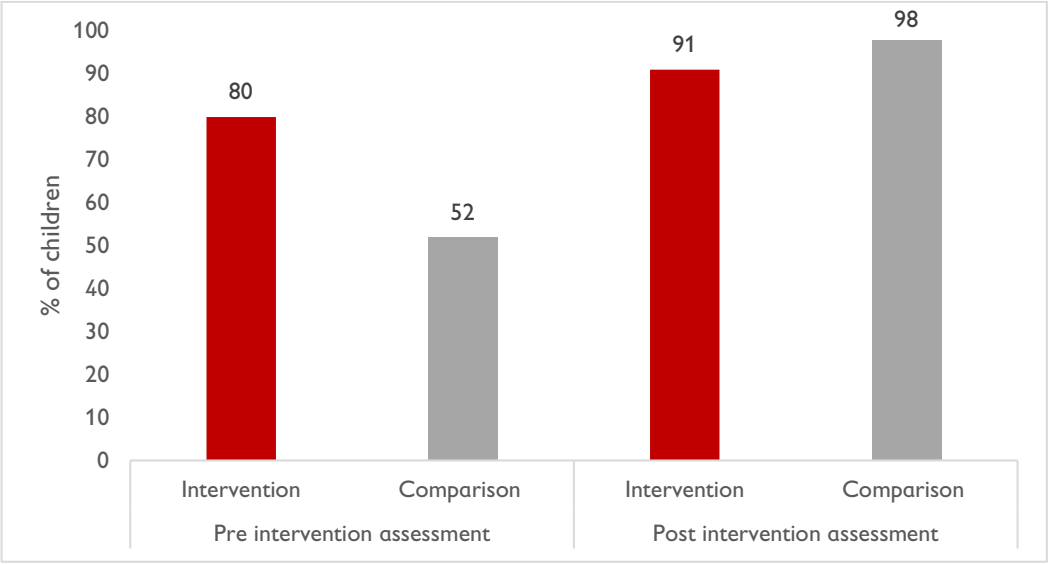
Figure 24: Percentage of children aged 6–23 months who received a diverse diet the day preceding the survey



3.7.2. Minimum meal frequency

"Minimum meal frequency" is defined as the child consuming a minimum number of solid, semi-solid or soft food snacks/meals during the previous day. The indicator defines "minimum" differently for breastfed and non-breastfed children, as well as by age. "Minimum frequency" is defined as eating two or more times per day for a breastfed child aged 6–8 months, eating three or more times per day for a breastfed child aged 9–23 months and eating four or more times a day for non-breastfed children aged 6–23 months. Feeding includes both meals and snacks, and feeding frequency for non-breastfed children includes both milk feeds and solid/semi-solid foods. The percentage of children who received the minimum meal frequency increased from 66% in the pre-intervention assessment to 94% in the post-intervention assessment. In the pre-intervention assessment, the proportion of children who received minimum meal frequency in the intervention group (80%) was higher than the proportion of children in the comparison group (52%). The increase in the proportion of children in the post-intervention assessment who received minimum meal frequency was higher for the comparison group than the intervention group. In the post-intervention group, the proportion of children who received the minimum meal frequency was 91% and 98% in the intervention and comparison groups respectively.

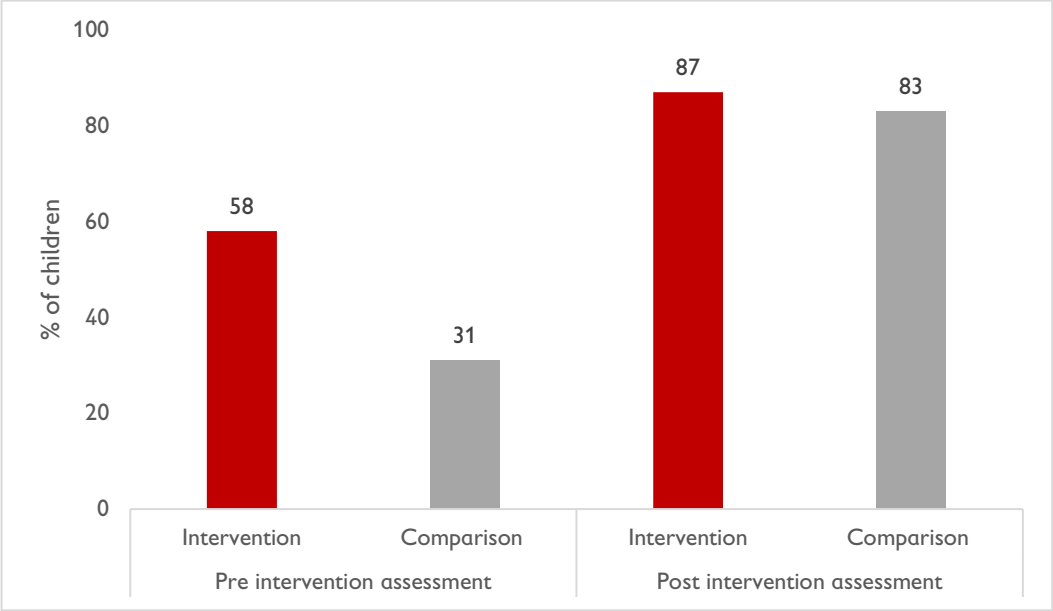
Figure 25: Percentage of children aged 6–23 months who receive the minimum meal frequency



3.7.3. Minimum acceptable diet

The minimum acceptable diet indicator is a composite measure that combines the measures of minimum meal frequency and minimum dietary diversity. Among children aged 6–23 months, 58% of children in the intervention group and 31% of children in the comparison group were receiving a minimum acceptable diet in the pre-intervention assessment. In the post-intervention assessment, the proportion of children meeting the criteria for a minimum acceptable diet increased to 87% in intervention group and to 83% among children in the comparison group. The increase between the pre-intervention and the post-intervention assessment in the proportion of children receiving a minimum acceptable diet was greater for the comparison group than for the intervention group.

Figure 26: Percentage of children aged 6–23 months who received the minimum acceptable diet the day preceding the survey

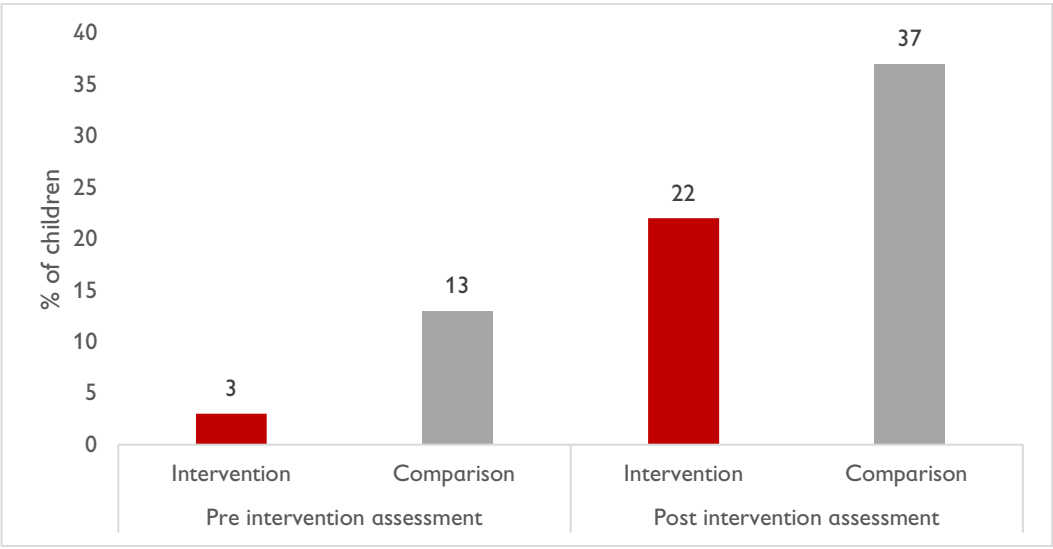


3.7.4. Child growth (children aged 0–2)

Stunting

The proportion of children aged 0–2 in the sample who were stunted increased from 8% to 30%. However, the increase in the proportion of stunted children was greater for the comparison group than for the intervention group. In the pre-intervention assessment, 3% of children in the intervention group and 13% of children in the comparison group were stunted respectively. In the post-intervention assessment, 22% of children in the intervention group and 37% of children in the comparison group were stunted.

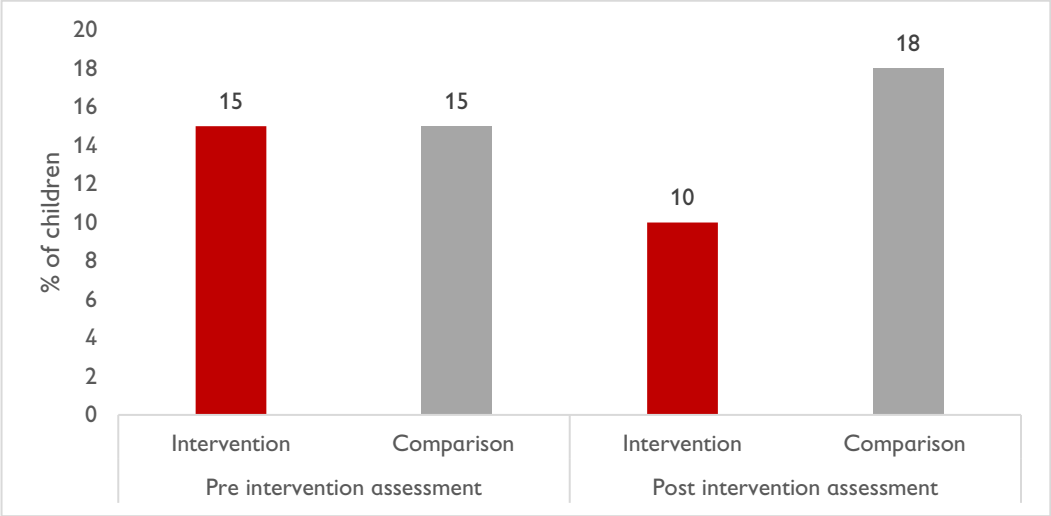
Figure 27: Proportion of stunted children in the intervention and comparison groups (children aged 0–2)



Wasting

We observe a marginal decrease in the proportion of children in the sample classified as wasted between the pre-intervention (15%) and post-intervention (14%) assessments. In the pre-intervention assessment, for both the intervention and comparison groups, 15% of children were wasted. In the post-intervention assessment, the proportion of wasted children decreased to 10% and increased to 18% for the intervention and comparison group respectively.

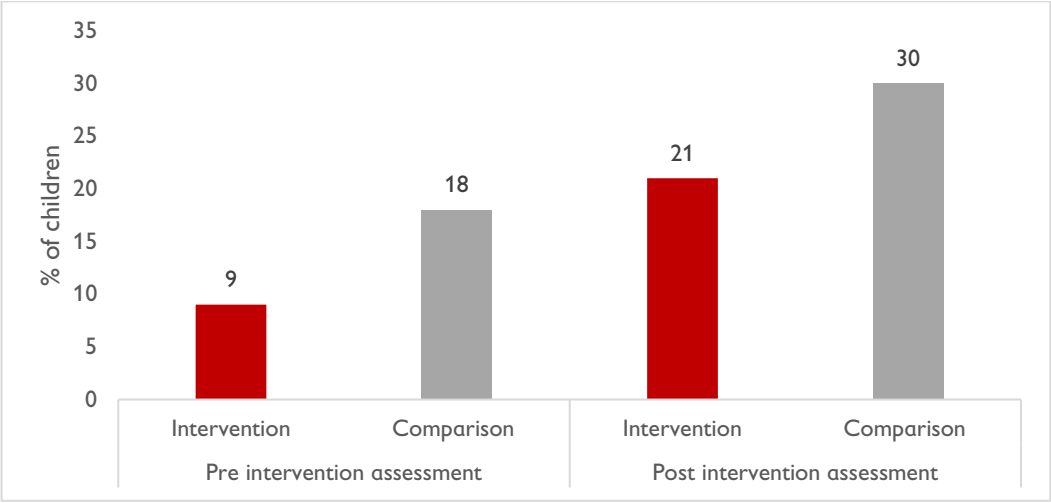
Figure 28: Proportion of wasted children in the intervention and comparison groups (children aged 0–2)



Underweight

The proportion of underweight children in the sample increased from 14% in the pre-intervention assessment to 26% in the post-intervention assessment. In the pre-intervention assessment, a larger proportion of children in the comparison group (18%) were underweight than the proportion of children in the intervention group (9%). The proportion of underweight children grew to 21% and 30% for the intervention and comparison groups respectively in the post-intervention assessment.

Figure 29: Proportion of underweight children in the intervention and comparison groups (children aged 0–2)

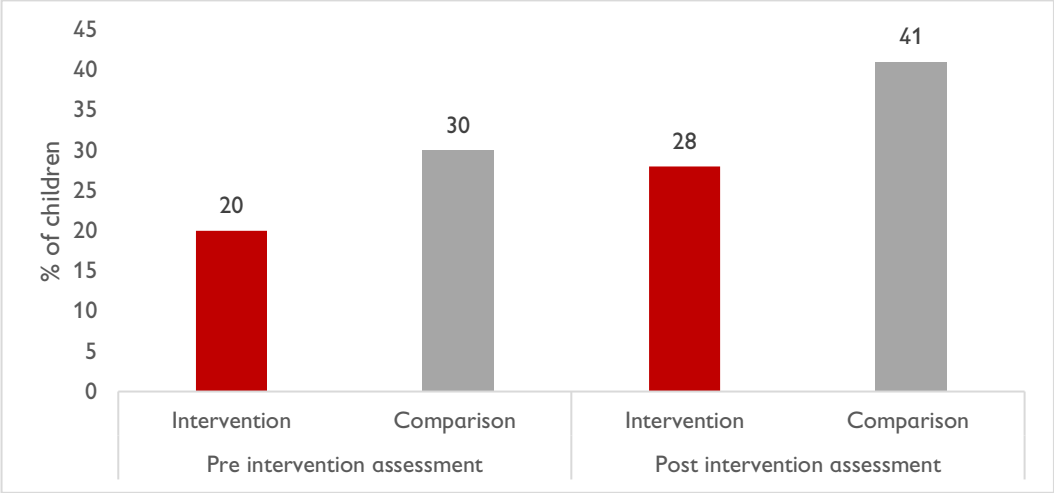


3.7.5. Child growth (children aged 3–5)

Stunting

An increase was observed in the proportion of stunted children from 25% to 34%. In the pre-intervention assessment, a larger proportion of children in the comparison group (30%) were stunted than the proportion of children in the intervention group (20%). In the post-intervention assessment, 28% of children in the intervention group and 41% of children in the comparison group were stunted. We observe that the increase in the proportion of stunted children in the comparison group was higher than the increase in the intervention group.

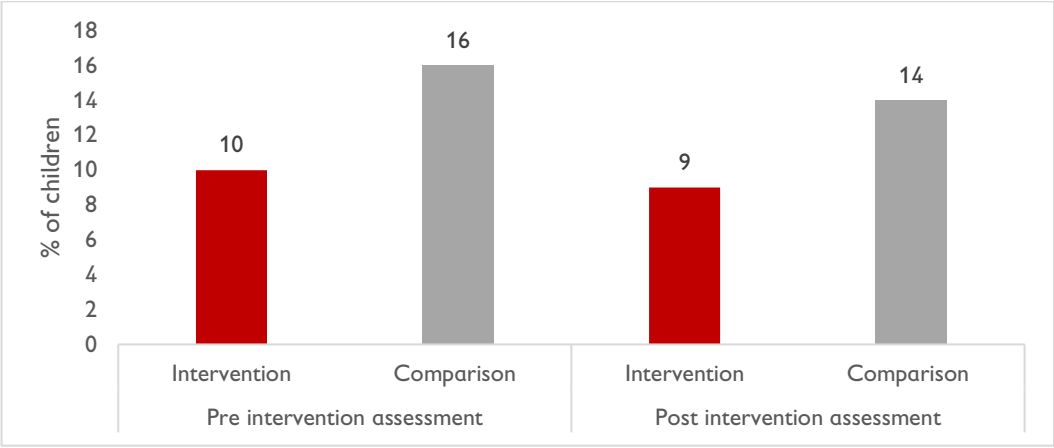
Figure 30: Proportion of stunted children in the intervention and comparison groups (children aged 3–5)



Wasting

The proportion of wasted children declined for the sample from the pre-intervention (13%) to post-intervention (11%) assessment. In the pre-intervention assessment, the proportion of wasted children in the intervention group (10%) was lower than the proportion of children in the comparison group (16%). In the post-intervention assessment, the proportion of wasted children declined to 9% and 14% for the intervention and comparison group respectively. The decrease in the proportion of wasted children was marginally higher for the intervention group than the comparison group.

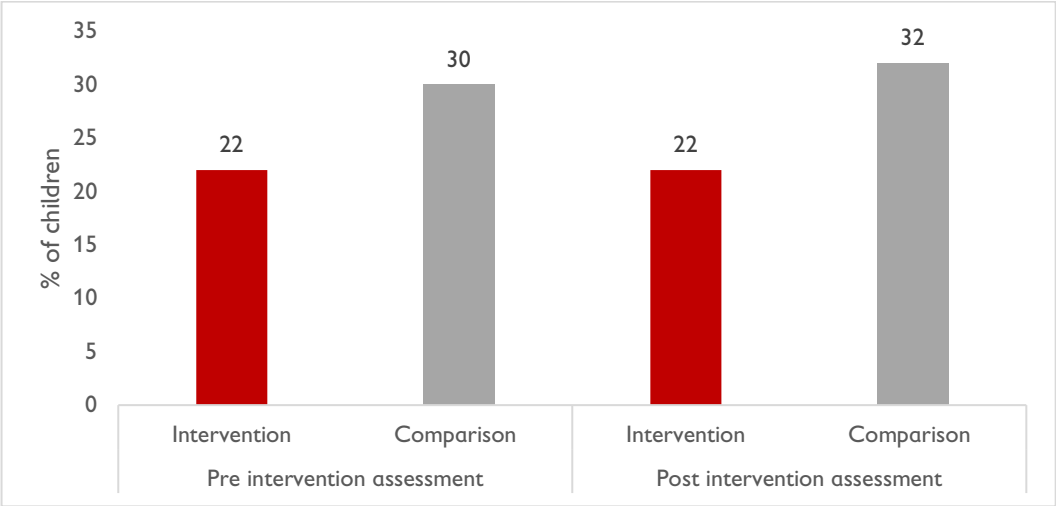
Figure 31: Proportion of wasted children in the intervention and comparison groups (children aged 3–5)



Underweight

The proportion of underweight children in the sample marginally increased from 26% in the pre-intervention assessment to 27% in the post-intervention assessment. In the pre-intervention assessment, a larger proportion of children in the comparison group (30%) were underweight than the proportion of children in the intervention group (22%). The proportion of underweight children remained constant in the intervention, while a small increase was observed in the proportion of underweight children in the comparison group (32%).

Figure 32: Proportion of underweight children in the intervention and comparison groups (children aged 3–5)



4. CONCLUSIONS AND LEARNING

The early years of children's lives are critical for laying a foundation for lifelong success. Therefore, nurturing care that includes adequate nutrition, protection from harm and early learning opportunities can impact children's wellbeing and resilience. Since caregivers are the primary providers of nurturing care in children's early years, it is essential to invest in them. This report presents the results of the quasi-experimental evaluation of one such investment in Nepal. The report examines and compares the changes in caregivers' practices and child development outcomes for families that received the intervention (the intervention group) and families that did not (the comparison group). Our results show that providing caregivers with a parenting intervention in addition to social assistance programmes such as the child grant can significantly improve a range of children's and caregivers' outcomes.

Children's development levels have improved across all domains between the pre-intervention and post-intervention assessment for the intervention group and the comparison group. However, the average gains for the intervention group are significantly higher than the average gains for the comparison group in all the child development domains for both age groups (children aged 0–2 and children aged 3–5). For children aged 0–2, we observe that participation in the parenting programme led to improved development outcomes among children for all child development domains. We observe that the intervention group's average gains between pre-intervention and post-intervention in various child development domains significantly exceeded the average gains for the comparison group. The average gains ranged from 0.64 SDs to 0.85 SDs. In the older age group (children aged 3–5), we find that the average gains for the intervention group were also greater than the average gains for the comparison group for all child development domains. The difference between the two groups was statistically significant. The average gains ranged from 0.30 SDs to 0.39 SDs.

With respect to caregivers' outcomes, we observe that parents became more engaged with their children's development and early learning between the pre-intervention and the post-intervention assessment, but the increase in caregiver engagement in the intervention group was significantly higher than for the comparison group. We also find a sharp

decline in caregivers' use of maltreatment and harsh disciplining practices, especially in the intervention group. In addition, we find that a greater proportion of caregivers in the intervention group were making savings and preferred to use their savings for favourable purposes compared to the proportion of caregivers in the comparison group.

The results from the regression analysis suggest that participating in the parenting programme, the number of children in the household, children's sex, exposure to different forms of maltreatment and caregiver engagement are strong predictors of gains between pre-intervention and post-intervention in child development outcomes. Children in the intervention group had larger gains than children in the comparison group for all domains for both age groups. For the younger children, we observe that girls and children from large families (with more children) had smaller gains in their child development outcomes than boys and children from smaller families (with fewer children) respectively. We also find that children with more frequent exposure to psychological aggression and neglect experienced smaller gains in their child development outcomes than children with lower exposure to non-violent discipline, psychological aggression and neglect respectively.

Despite the large improvements for the intervention group in their child development and parenting outcomes, we observe that the success of the parenting programme in improving children's nutrition outcomes has been limited. We find that that the prevalence of stunting, wasting and being underweight has increased for our sample, and the increase in the prevalence of malnutrition between the pre-intervention and post-intervention assessment in the intervention group is only marginally lower than the increase for the comparison group. We also observe that the increase between the pre-intervention and post-intervention assessment in the proportion of children who received minimum dietary diversity, meal frequency and acceptable diets was greater for the comparison group than for the intervention group. Nevertheless, we observe that the intervention group's improvement between the pre-intervention and the post-intervention assessment was larger than the comparison group's improvement in their knowledge about breastfeeding and complementary feeding practices.

The key findings from the evaluation suggest the following programming and learning priorities.

Programming priorities

- For children aged 0–2 in the intervention group, we observe that boys' average gains in their child development outcomes between the pre-intervention and the post-intervention assessment were significantly higher than those of girls. The parenting programme must recognize children's gendered needs and adapt the programme to meet the unique needs of caregivers with children who are girls.
- We observe that children in smaller households (with fewer children) had larger child development gains than children in larger households (with more children). Therefore, the parenting programme should focus on supporting families and caregivers to adequately engage with all children in their early years, especially in multi-children households.
- We also find that predictors of child development varied for children in the two age groups. For the youngest children (aged 0–2), sex, household size and exposure to non-violent discipline were significant predictors of child development, while for the older age group (children aged 3–5) caregiver engagement and exposure to psychological aggression were associated with child development. Therefore, to meet the needs of each age group, the parenting programme should deliver targeted messages to caregivers in each age group through home visits or dedicated parenting sessions.

Learning priorities

- The evaluation shows that, in the short term (11 months after delivering the intervention), participation in the parenting programme has been associated with higher gains in child development outcomes for the intervention group. It will be beneficial to understand whether the impact of the intervention persists in the medium term (after 24 months) in advocating for a more expansive scale-up of the parenting programme.
- We find that the effect of the parenting programme on children's nutrition outcomes has been more limited in nature than on children's development outcomes. As a result, we must examine the limitations of the intervention in improving children's nutrition outcomes and better understand other factors that might affect children's nutrition.

5. ANNEXES

A. Comparison of pre-intervention caregiver and child development outcomes between the intervention and comparison groups for dyads that dropped out of the study after the pre-intervention assessment

Children aged 0–2			
Caregiver outcomes	Intervention group	Comparison group	Difference
Non-violent discipline score (out of 4)	1.77	2.61	0.83~
Physical aggression score (out of 4)	0.67	0.46	0.21
Psychological aggression score (out of 4)	0.55	0.58	0.03
Neglect score (out of 4)	1.08	1.09	0.01
Caregiver engagement score	5.64	4.84	-0.80
CREDI domains	Intervention group	Comparison group	Difference
CREDI overall	48.09	48.80	0.71
Language development	48.43	49.06	0.63
Motor development	47.84	48.73	0.88
Social–emotional development	48.04	48.68	0.64
Cognitive development	48.05	48.73	0.67
Children aged 3–5			
Caregiver outcomes	Intervention group	Comparison group	Difference
Non-violent discipline score (out of 4)	2.09	1.98	0.11
Physical aggression score (out of 4)	0.96	0.85	0.11
Psychological aggression score (out of 4)	1.22	0.92	0.30
Neglect score (out of 4)	1.36	0.71	0.65**
Caregiver engagement score	6.90	4.71	2.19**
IDELA domains	Intervention group	Comparison group	Difference
IDELA overall	34	25	9*
Emergent literacy	25	21	4
Emergent numeracy	35	31	4
Motor development	33	24	9
Social–emotional development	34	23	11*

Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

B. Comparison of pre-intervention caregiver and child development outcomes between dyads that dropped out of the study after the pre-intervention assessment and dyads that did not drop out

Children aged 0–2			
Caregiver outcomes	Found in the post-intervention assessment	Found in the pre-intervention assessment only	Difference
Non-violent discipline score (out of 4)	1.75	2.01	0.26
Physical aggression score (out of 4)	0.51	0.61	0.1
Psychological aggression score (out of 4)	0.75	0.56	0.19
Neglect score (out of 4)	0.96	1.09	0.13
Caregiver engagement score	4.37	5.42	1.05**
CREDI domains	Found in the post-intervention assessment	Found in the pre-intervention assessment only	Difference
CREDI overall	48.14	48.32	0.18
Language development	48.42	48.64	0.22
Motor development	48.04	48.13	0.09
Social–emotional development	47.98	48.25	0.27
Cognitive development	48.09	48.27	0.18
Children aged 3–5			
Caregiver outcomes	Found in the post-intervention assessment	Found in the pre-intervention assessment only	Difference
Non-violent discipline score (out of 4)	2.15	2.03	0.12
Physical aggression score (out of 4)	1.06	0.91	0.15
Psychological aggression score (out of 4)	1.09	1.07	0.02
Neglect score (out of 4)	1.15	1.03	0.12
Caregiver engagement score	5.92	5.81	0.11
IDELA domains	Found in the post-intervention assessment	Found in the pre-intervention assessment only	Difference
IDELA overall	33	30	3
Emergent literacy	26	23	3
Emergent numeracy	37	33	4
Motor development	30	29	1
Social–emotional development	33	28	5

Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

C. Subdomain scores for IDELA in the post-intervention assessment

Emergent literacy	Intervention (% of questions answered correctly)	Intervention (% of questions answered correctly)
Oral comprehension***	93	93
Emergent writing***	64	33
Expressive vocabulary***	60	20
Print awareness***	74	13
Letter identification***	51	11
Initial sound discrimination***	64	11

Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

Emergent numeracy	Intervention (% of questions answered correctly)	Intervention (% of questions answered correctly)
Number identification***	56	8
Puzzle completion***	75	26
One-to-one correspondence***	76	24
Sorting/classification***	94	28
Simple operations***	92	32
Shape identification***	85	28
Measurement and comparison***	99	78

Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

Social–emotional development	Intervention (% of questions answered correctly)	Intervention (% of questions answered correctly)
Self-awareness***	93	54
Social networks (friends)***	65	27
Emotional awareness/regulation***	89	23
Empathy***	82	23
Solving conflict***	76	19

Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

Motor development	Intervention (% of questions answered correctly)	Intervention (% of questions answered correctly)
Copy a shape***	78	26
Drawing a person***	77	13
Folding a piece of paper***	84	40
Hopping***	88	61

Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

Executive function	Intervention (% of questions answered correctly)	Intervention (% of questions answered correctly)
Short-term memory***	78	38
Inhibitory control***	90	24

Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

Approaches to learning	Intervention (% of questions answered correctly)	Intervention (% of questions answered correctly)
Persistence***	17	39
Assessor observation	82	62

Differences significant at p<0.001(***), p<0.01 (**), p<0.05 (*) and p<0.10 (~)

D. Predictors of gains in child development outcomes (CREDI: children aged 0–2)

	Cognitive development (gains between pre-intervention and post-intervention assessment)		Social–emotional development (gains between pre-intervention and post-intervention assessment)		Motor development (gains between pre-intervention and post-intervention assessment)	
	Beta	Effect size	Beta	Effect size	Beta	Effect size
Intervention group	1.434***	0.863	1.432***	0.857	1.164***	0.648
		-0.272		-0.311		-0.28
Children's sex (child is female)	-0.365*	-0.22	-0.379*	-0.227	-0.339*	-0.189
		-0.185		-0.189		-0.252
Number of children in household	-0.109**	-0.066	-0.100*	-0.06	-0.079*	-0.044
		-0.053		-0.054		-0.055
Caregiver education (number of years)	-0.041	-0.025	-0.03	-0.018	-0.05	-0.028
		-0.026		-0.026		-0.03
Child is enrolled in an ECD programme	-0.374	-0.225	-0.386	-0.231	-0.38	-0.211
		-0.295		-0.283		-0.38
Total number of possessions in household	0.053	0.032	0.037	0.022	0.085	0.047
		-0.059		-0.06		-0.053
Caregiver engagement	0.012	0.007	0.009	0.005	0.04	0.022
		-0.05		-0.049		-0.054
Non-violent discipline	-0.232***	-0.14	-0.241***	-0.144	-0.160***	-0.089
		-0.052		-0.054		-0.08
Psychological aggression	-0.516*	-0.31	-0.386	-0.231	-0.505	-0.281
		-0.298		-0.308		-0.358
Physical aggression	0.23	0.138	0.14	0.084	0.183	0.102
		-0.257		-0.28		-0.322
Neglect	0.089	0.054	0.061	0.036	0.158	0.088
		-0.146		-0.14		-0.129
N		315		315		315

	Language development (gains between pre-intervention and post-intervention assessment)		CREDI (gains between pre-intervention and post-intervention assessment)	
	Beta	Effect size	Beta	Effect size
Intervention group	1.079***	0.759	1.333***	0.717
		-0.207		-0.219
Children's sex (child is female)	-0.132*	-0.093	-0.223	-0.12
		-0.146		-0.21
Number of children in household	-0.069*	-0.049	-0.091*	-0.049
		-0.045		-0.05
Caregiver education (number of years)	-0.033	-0.023	-0.050	-0.027
		-0.022		-0.028
Child is enrolled in an ECD programme	0.025	0.018	0.085	0.046
		-0.234		-0.268
Total number of possessions in household	0.009	0.006	0.001	0
		-0.051		-0.057
Caregiver engagement	0.084***	0.059	0.177***	0.095
		-0.021		-0.033
Non-violent discipline	-0.157*	-0.111	-0.119**	-0.064
		-0.087		-0.115
Psychological aggression	-0.203	-0.143	-0.24	-0.129
		-0.214		-0.373
Physical aggression	0.195	0.137	0.268	0.144
		-0.135		-0.269
Neglect	0.019	0.013	0.007	0.004
		-0.12		-0.13
N		315		315

E. Predictors of gains in child development outcomes (IDELA: children aged 3–5)

	Motor development (gains between pre-intervention and post-intervention assessment)		Social–emotional development (gains between pre-intervention and post-intervention assessment)		Emergent literacy (gains between pre-intervention and post-intervention assessment)	
	Beta	Effect size	Beta	Effect size	Beta	Effect size
Intervention group	1.145***	0.399	0.904***	0.307	1.103***	0.308
		-0.051		-0.048		-0.054
Children's sex (child is female)	0.001	0	-0.049	-0.017	0.025	0.007
		-0.044		-0.039		-0.024
Number of children in household	0.028	0.01	0.024	0.008	0.001	0
		-0.015		-0.012		-0.012
Caregiver education (number of years)	-0.008	-0.003	-0.002	-0.001	0.005	0.001
		-0.006		-0.004		-0.004
Child is enrolled in an ECD programme	0.031	0.011	-0.041	-0.014	0.112	0.031
		-0.033		-0.051		-0.045
Total number of possessions in household	-0.007	-0.002	-0.049	-0.017	0.019	0.005
		-0.01		-0.012		-0.009
Caregiver engagement	0.034	0.012	0.03	0.01	0.048*	0.014
		-0.009		-0.01		-0.007
Non-violent discipline	-0.035	-0.012	0	0	0.061	0.017
		-0.022		-0.034		-0.014
Psychological aggression	-0.165***	-0.057	-0.175**	-0.059	0.046	0.013
		-0.009		-0.026		-0.04
Physical aggression	0.044	0.015	0.026	0.009	0.049	0.014
		-0.018		-0.06		-0.025
Neglect	-0.039	-0.014	-0.037	-0.012	-0.159**	-0.045
		-0.019		-0.025		-0.022
N		153		165		158

Predictors of gains in child development outcomes (IDELA: children aged 3–5) – part. 2

	Emergent numeracy (gains between pre-intervention and post-intervention assessment)		IDELA (gains between pre-intervention and post-intervention assessment)	
	Beta	Effect size	Beta	Effect size
Intervention group	1.013***	0.337	1.371***	0.387
		-0.075		-0.027
Children's sex (child is female)	-0.006	-0.002	0.066	0.019
		-0.041		-0.038
Number of children in household	0.005	0.002	0.009	0.003
		-0.011		-0.01
Caregiver education (number of years)	-0.012	-0.004	-0.014	-0.004
		-0.004		-0.004
Child is enrolled in an ECD programme	-0.055	-0.018	-0.062	-0.018
		-0.033		-0.036
Total number of possessions in household	-0.017	-0.006	-0.017	-0.005
		-0.007		-0.007
Caregiver engagement	0.019	0.006	0.042	0.012
		-0.012		-0.008
Non-violent discipline	0.069	0.023	-0.029	-0.008
		-0.017		-0.017
Psychological aggression	-0.173	-0.058	-0.217*	-0.061
		-0.05		-0.031
Physical aggression	-0.008	-0.003	0.129	0.036
		-0.046		-0.041
Neglect	-0.053	-0.018	-0.031	-0.009
		-0.016		-0.016
N		173		129