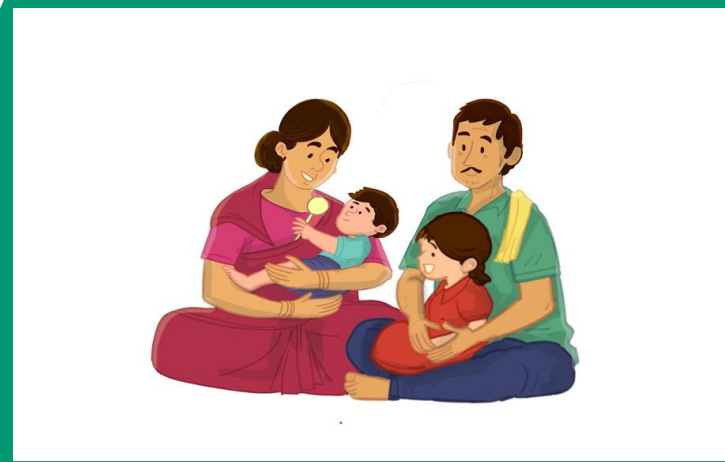


Parenting and cash: immediate and middle-term effects on child development and maternal well-being.



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icddr,b

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Introduction



Magnitude



Developmental delay: 250 million children younger than 5 years

Black et al. 2017



Early developmental delay negatively impacts education, behaviour, substance use and adults' income and quality of life

Akseer et al.,2022; Grantha -McGregor, et al.,2007

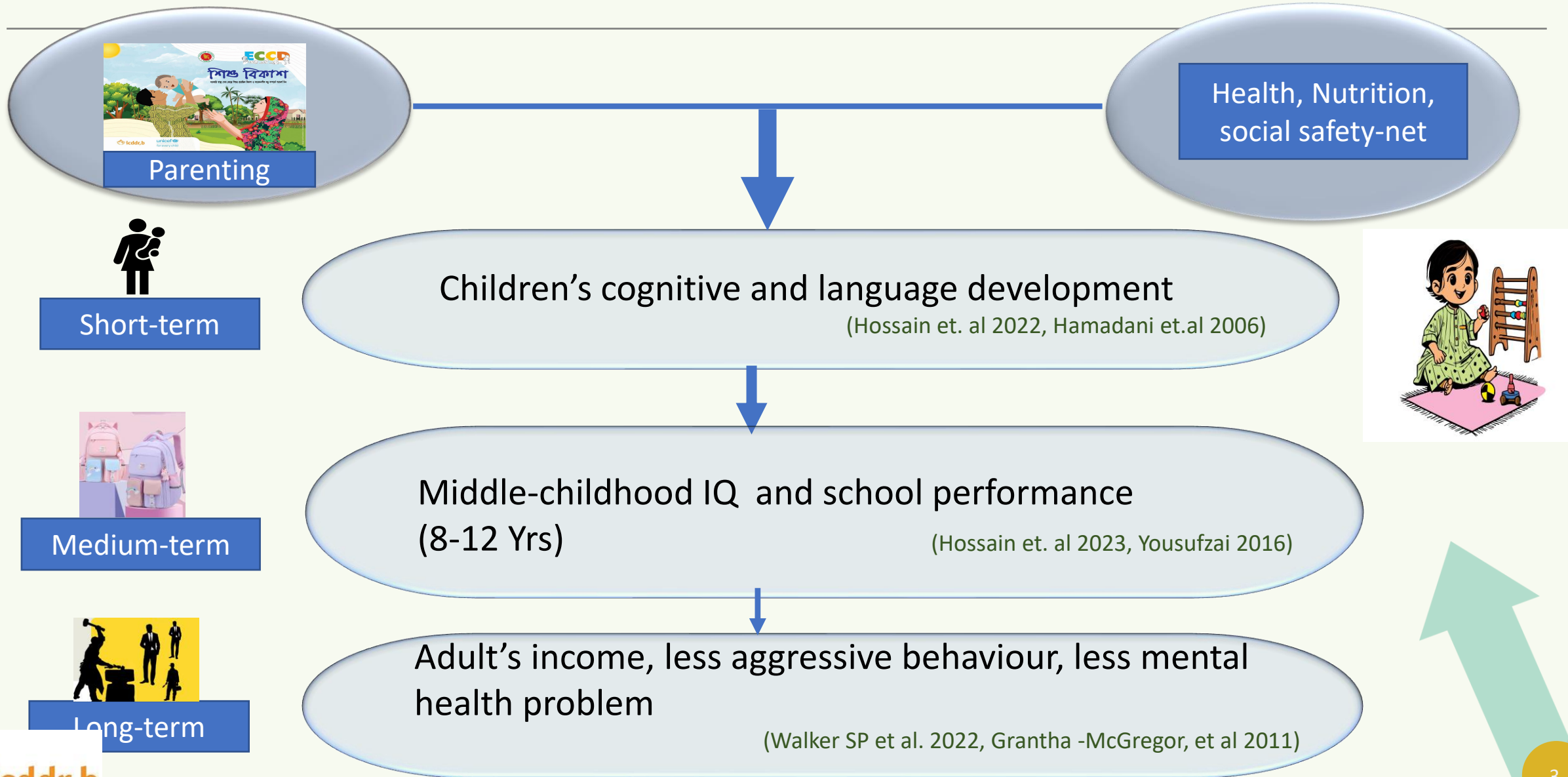
Major Risk factors



Poverty, inadequate nutrition, stimulation, improper parenting and maternal depression

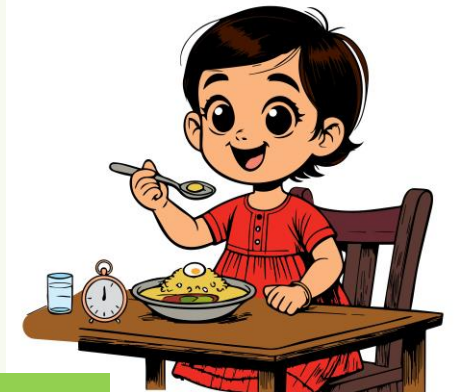
Hamadani et al.,2014; Britto et al.,2017; Walker et al.,2007

Introduction



Rational

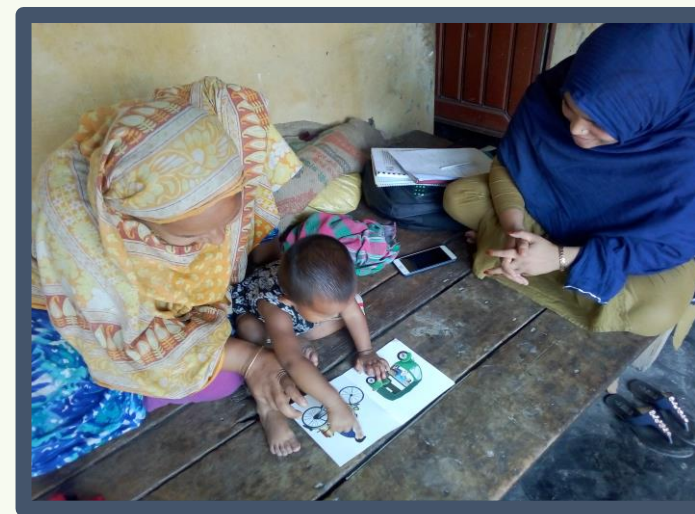
- In Bangladesh, 30% people live in urban areas where health system is complex, patchy and fragmented (Ahmed et. al, 2013)
- Poor urban women and children are vulnerable in terms of access to health and education in Bangladesh (Afsana et. al, 2013)
- The target 4.2 of Sustainable Developmental Goals by 2030 is to ensure quality early child development intervention for all (UN-2015)
- There is strong recommendation of delivering parenting intervention using social safety net (cash transfer) programmes (Britto et. al, 2017)



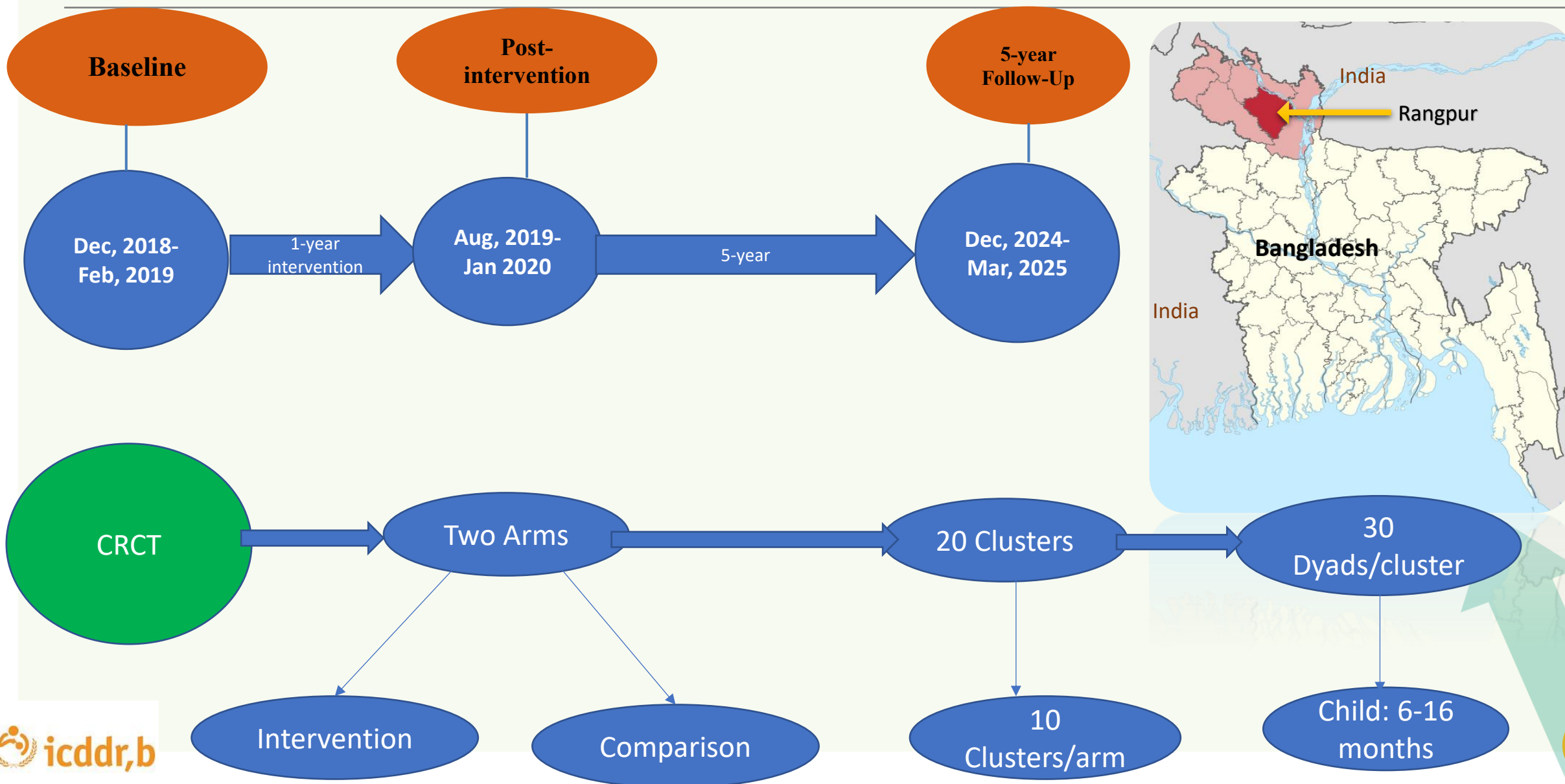
There is limited evidence of short and middle-term impact of parenting and unconditional cash on child development and maternal well-being

Objective

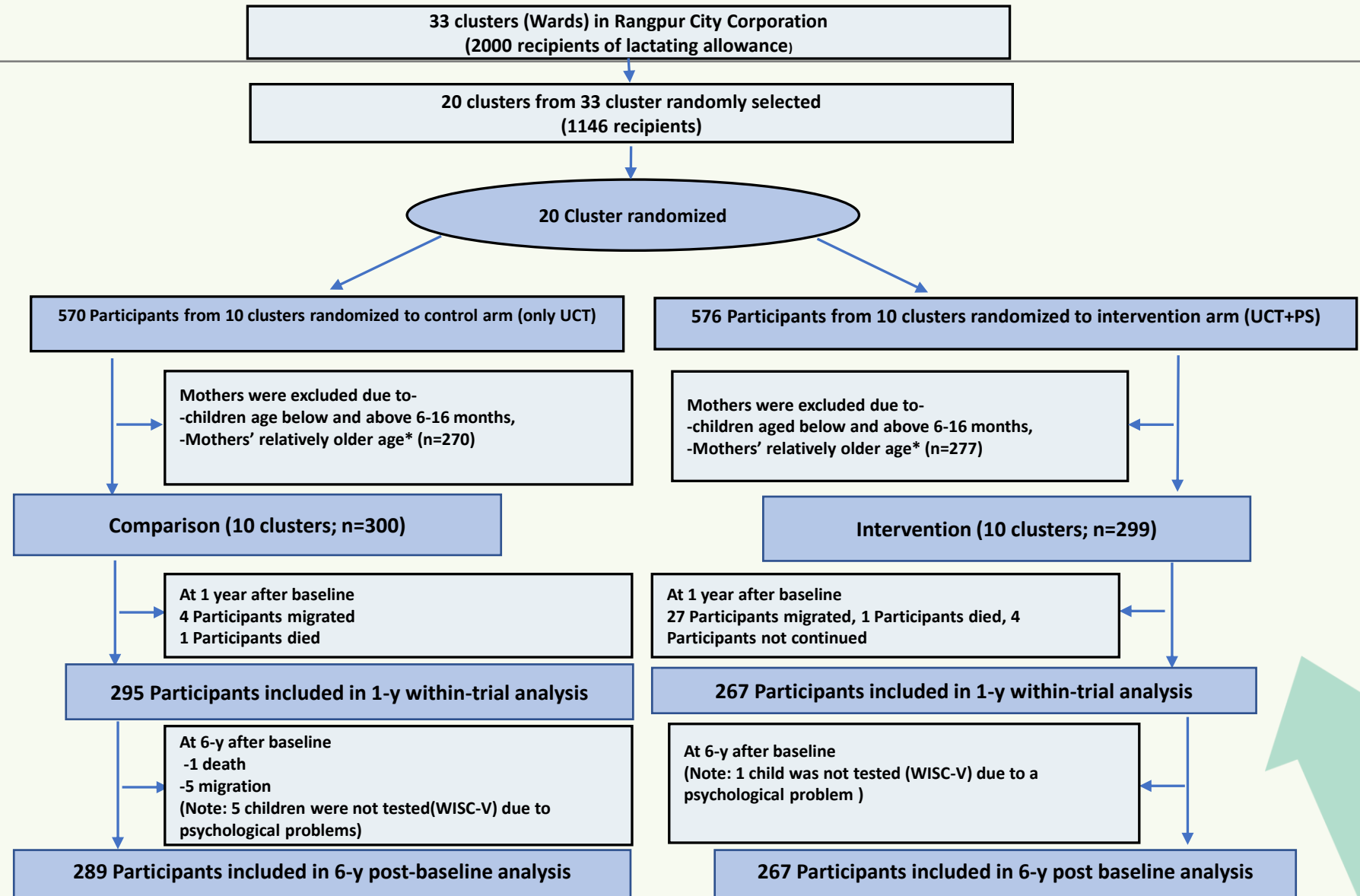
To evaluate the effects of parenting and unconditional cash on children's IQ, early grade performance, and maternal well-being after 5-year of intervention



Methods



Enrollment and Follow-up



Intervention

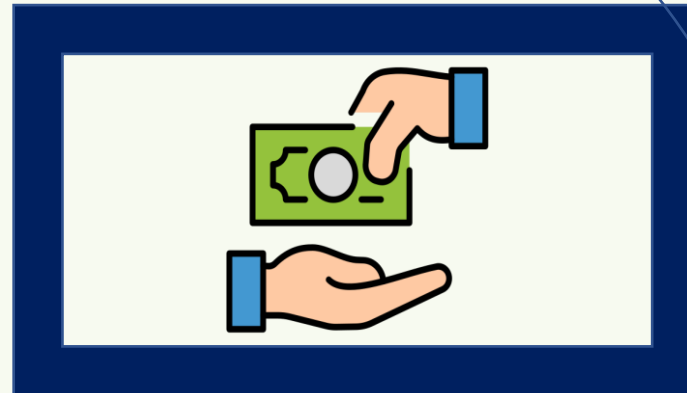
Original Trial

Intervention Arm



- ❑ Parenting &
- ❑ Unconditional Cash Transfer

Comparison Arm



Unconditional Cash Transfer

5-year follow-up

**Pure comparison
(non randomised)**

**-No cash
-No parenting**

Intervention

Parenting/Psychosocial Stimulation

- ❖ A structured Reach-up curriculum of parenting and nutrition education
- ❖ Individual home visiting for fortnightly for one year
- ❖ Used home-made toys, specially designed books, puzzles and games.
- ❖ All activities were appropriate for the child's age



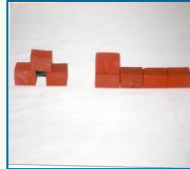
Sessions includes

Components of a session

Rhymes/Songs



Toys



Language activity



Nutritional messages

- Breast-feeding
- Complementary feeding
- Micronutrients e.g. Iron, Iodine, Vitamins
- High-energy diet for malnourished children
- Feeding during illness
- Family diet
- Food diversity

Books, puzzles & shapes






Developmental messages

- Show children our love
- Praise
- Discipline children
- Importance of play
- Teaching moral values
- Treating boys and girls equally



Unconditional Cash Transfer (UCT)

To help improving mothers and children's health and well-being

-  Poor pregnant women were targeted under the safety net program of the Government of Bangladesh.
-  Mothers received 800 BDT per month (9 \$)
-  Every three months for three years through the banking/ mobile banking channel



Tools for measurement

| Outcomes | Baseline & Endline | 5-year follow-up |
|------------------------------------|--------------------------------------|---------------------------------|
| Children's development/ IQ | Bayley III | WISC-V |
| Children's early grade performance | -- | EGRA & EGMA |
| Home stimulation environment | Family Care Indicator | HOME |
| Mothers' depressive symptoms | Self-Reported Questionnaire (SRQ-20) | SRQ-20 |
| Mothers' quality of life | WHOQoL questionnaire | WHOQoL questionnaire |
| Mothers' empowerment | -- | Mobility and financial decision |
| Violence against mothers | Multi-country questionnaire | Multi-country questionnaire |



At enrollment



5-year follow-up

Background characteristics of the participants at enrollment

| Characteristics | UCT N = 289 ¹ | UCT with Parenting N = 267 ¹ | p-value ² |
|-----------------------|--------------------------|---|----------------------|
| Child Age, m | 11.2 (3.2) | 11.4 (3.1) | 0.60 |
| Sex of child | | | 0.20 |
| Male | 136 (47.1%) | 140 (52.4%) | |
| Female | 153(52.9%) | 127 (47.6%) | |
| Age of Mother, y | 25.7 (5.4) | 25.7 (4.7) | >0.9 |
| Mother's education, y | 6.9 (3.4) | 7.2 (3.6) | 0.3 |
| Father's education, y | 5.5 (4.2) | 5.6 (4.4) | 0.7 |
| Wealth Index | | | <0.001 |
| Poor | 119.0 (41.2%) | 68.0 (25.5%) | |
| Middle | 88.0 (30.4%) | 95.0 (35.6%) | |
| Rich | 82.0 (28.4%) | 104.0 (39.0%) | |

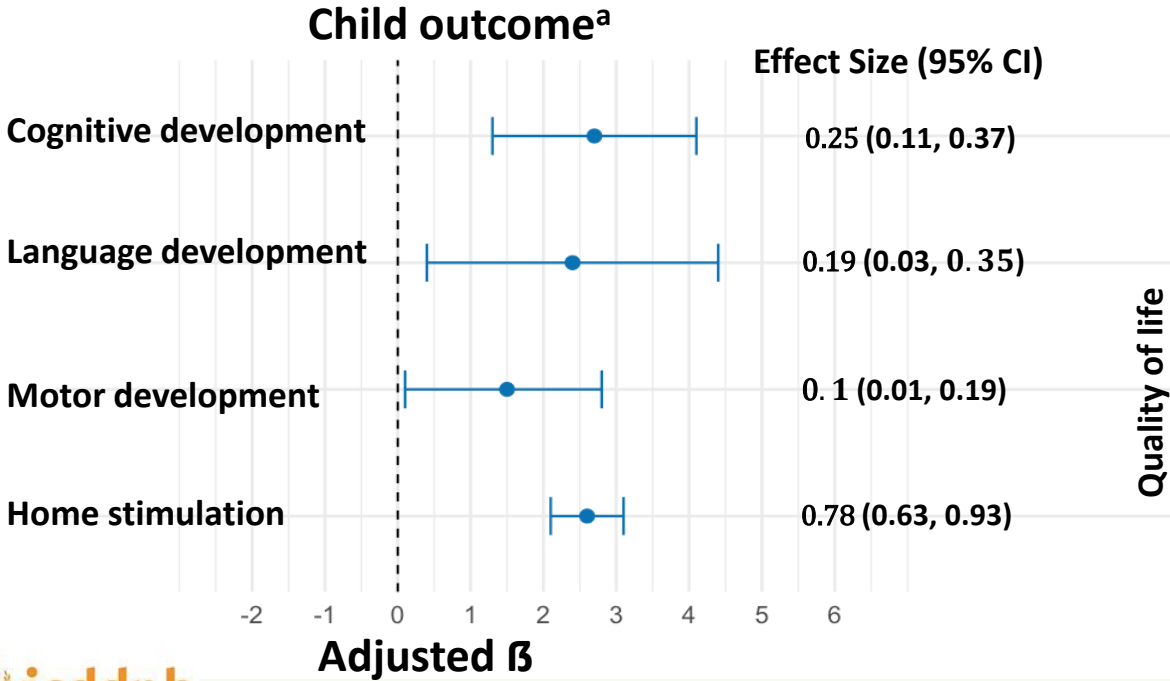
Findings: Immediately after the intervention

THE LANCET Regional Health
Southeast Asia

Effect of a parenting and nutrition education programme on development and growth of children using a social safety-net platform in urban Bangladesh: a cluster randomized controlled trial

Sheikh Jamal Hossain^{a,b,*}, Syed Moshfiqur Rahman^a, Jane Fisher^c, Anisur Rahman^b, Fahmida Tofail^b and Jena Derakhshani Hamadani^b

^aGlobal Health and Migration Unit, Department of Women's and Children's Health, Uppsala University, Sweden
^bInternational Centre for Diarrhoeal Disease Research Bangladesh (icddr), Mohakhali, Dhaka, 1212, Bangladesh
^cGlobal and Women's Health, School of Public Health and Preventive Medicine, Monash University, Melbourne, VIC, 3004, Australia



GLOBAL HEALTH ACTION
2024, VOL. 17, 2426784
<https://doi.org/10.1080/16549716.2024.2426784>

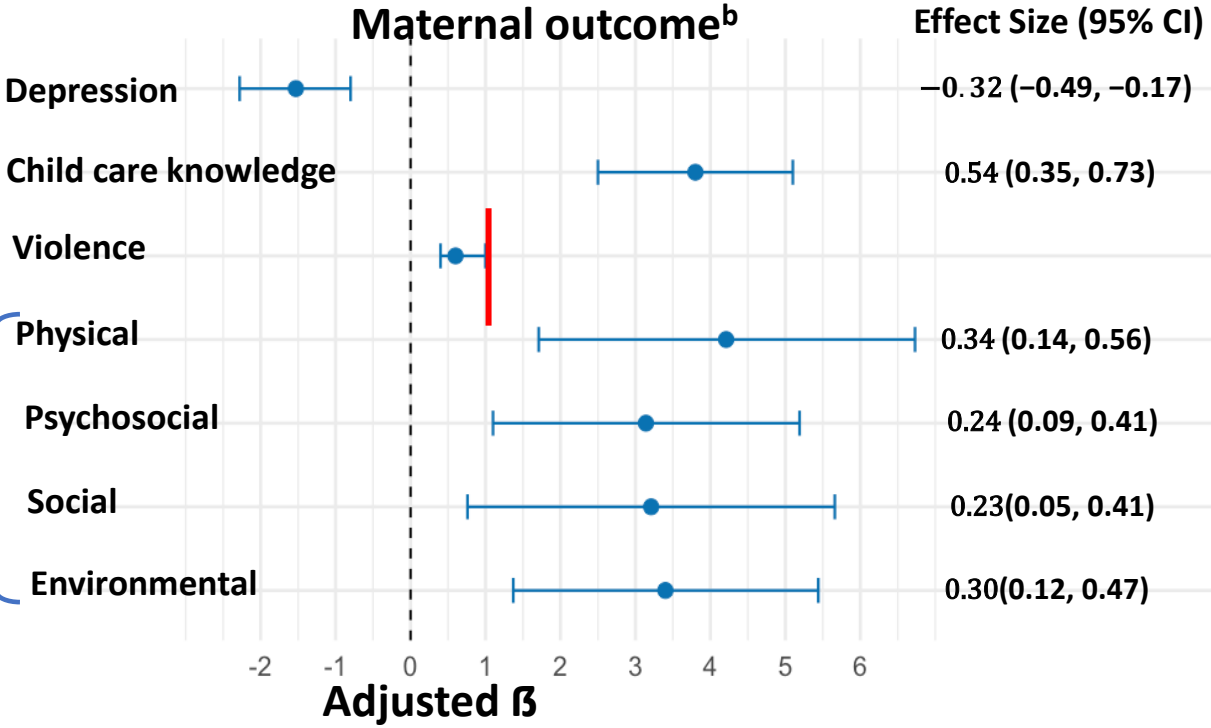
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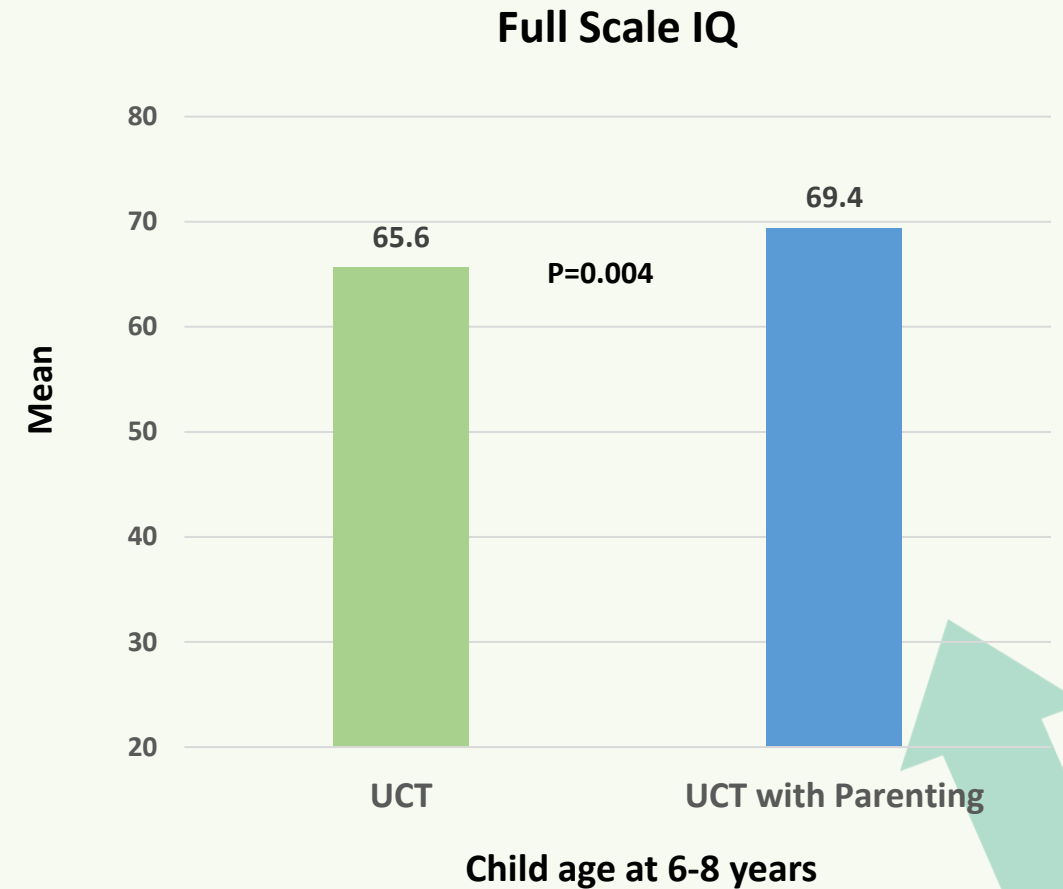
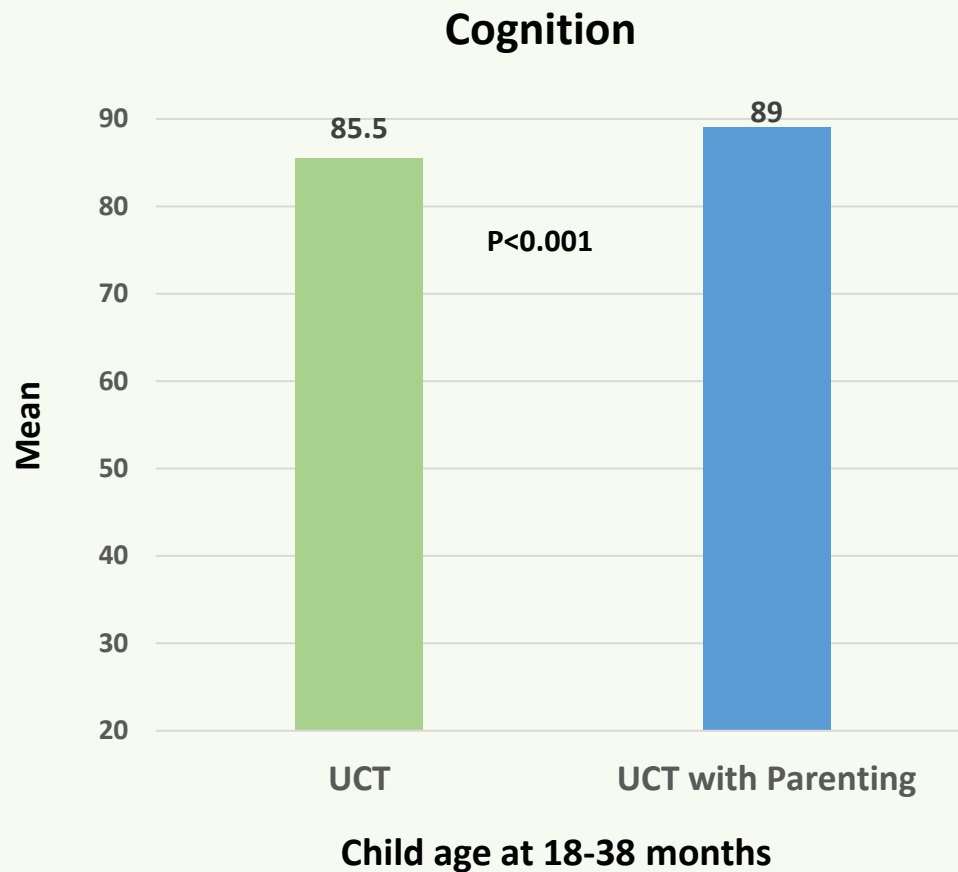
Parenting with nutrition education and unconditional cash reduce maternal depressive symptoms and improve quality of life: findings from a cluster randomised controlled trial in urban Bangladesh

Sheikh Jamal Hossain^{a,b}, Fahmida Tofail^c, Anisur Rahman^b, Jane Fisher^d, Jena Derakhshani Hamadani^b and Syed Moshfiqur Rahman^a

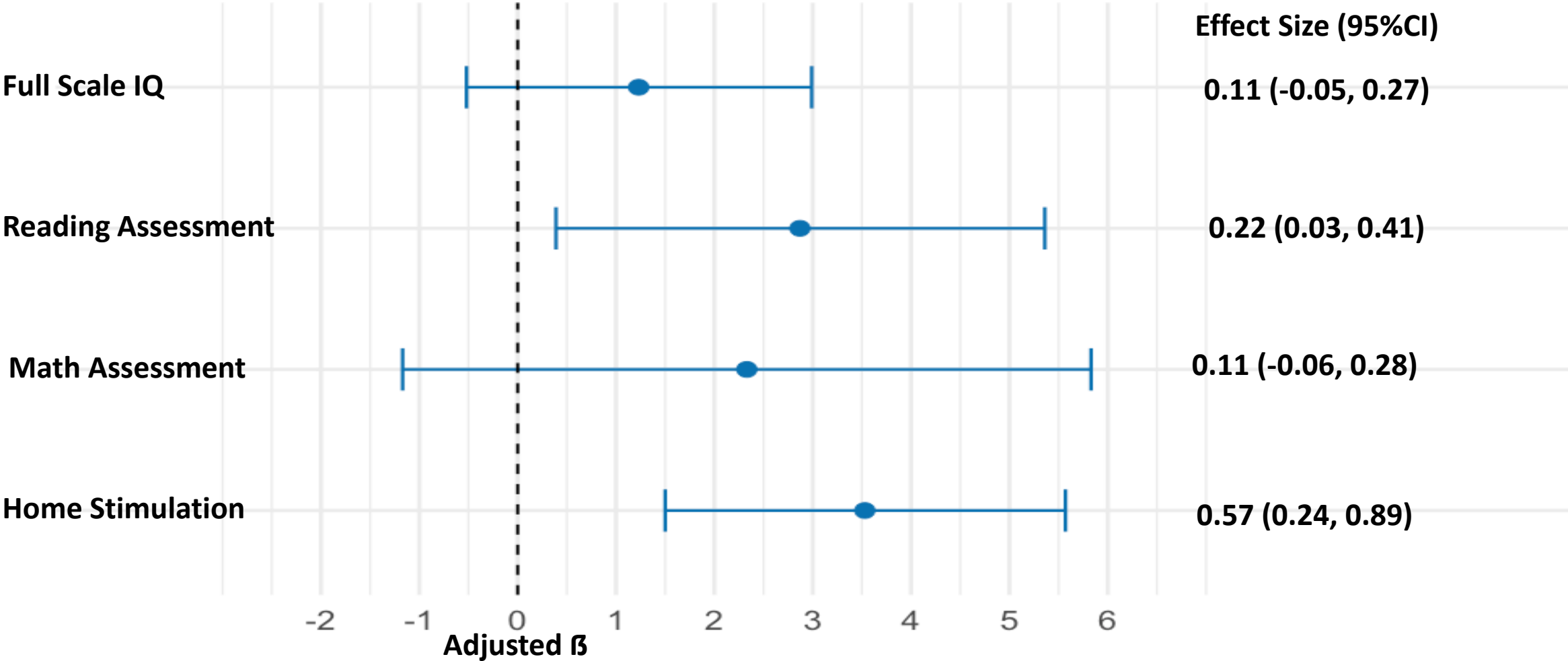


^aChild age and sex, tester/interviewer, asset index, baseline corresponding score as fixed effects and cluster as a random effect were adjusted for in each model.
^bRespective baseline outcome, violence against mothers, maternal child development activities conducted with children, testers' effect and clusters as random effect were adjusted for in each model.

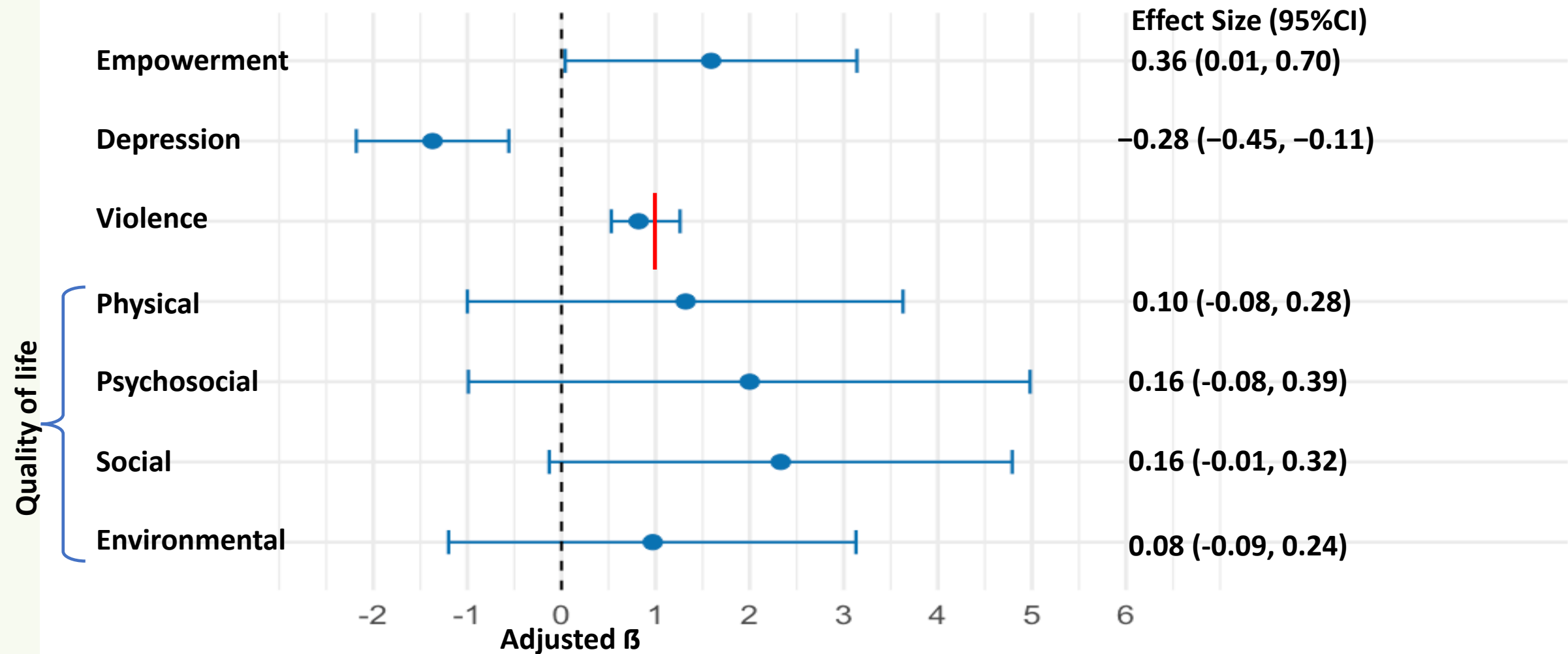
Children's cognition and IQ immediate after intervention and at 5 years follow-up



Findings for child outcome at 5-year follow-up using regression analysis (UCT+PS vs UCT)



Findings for maternal outcome at 5-year follow-up using regression analysis (UCT+PS vs UCT)



All model was adjusted by baseline outcome (if available), baseline characteristics those are different in both intervention group (child language development score, child WAZ, child months of exclusive breastfeeding, mother violence, mother environmental quality of life, family monthly income, and wealth index), child follow-up age, child sex, and tester/interviewer. For Full Scale IQ, baseline cognitive is used as a baseline outcome, so we removed baseline language from the model due to a high correlation between language and cognitive score

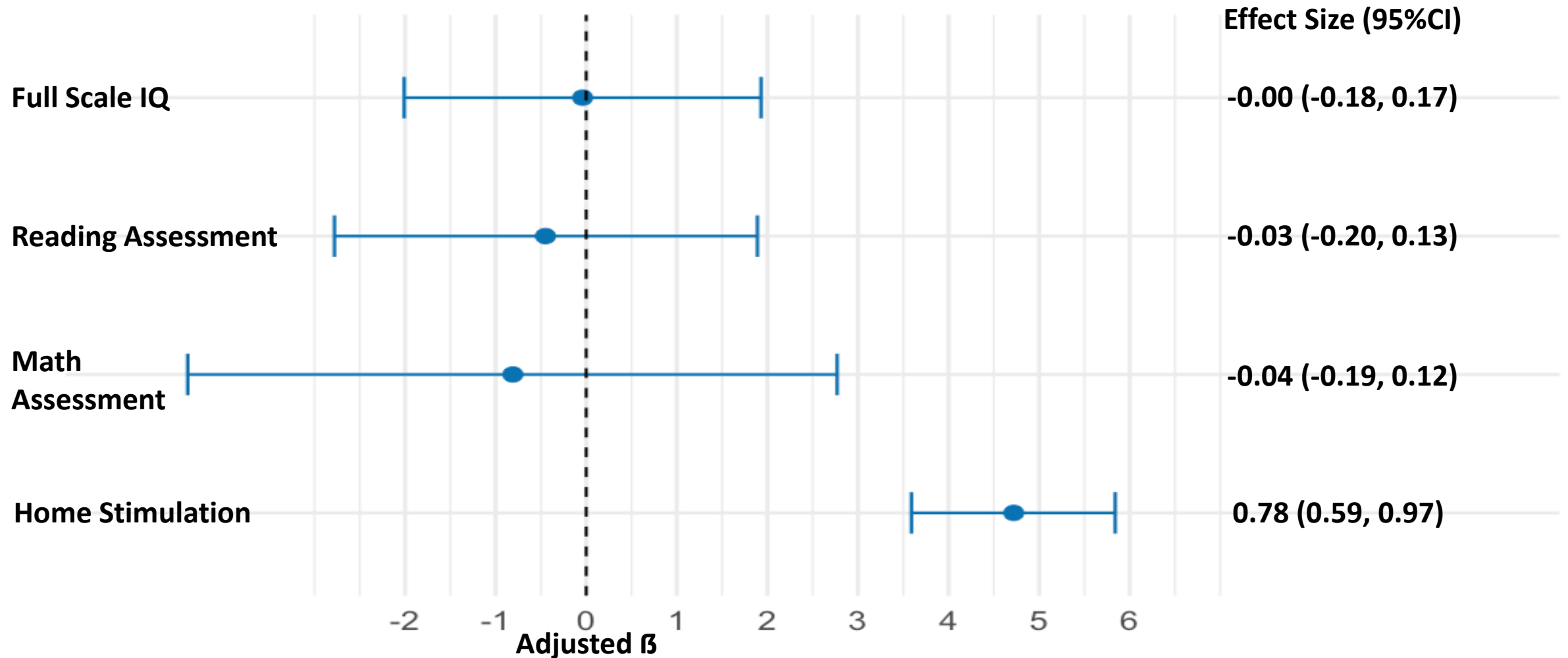
Background characteristics of the child at Follow-up

| Characteristics | Comparison N = 267 ¹ | UCT N = 289 ¹ | p-value ² |
|-----------------------|---------------------------------|--------------------------|----------------------|
| Child age, y | 6.9 (0.6) | 6.9 (0.3) | 0.70 |
| Mother's education, y | 4.9 (2.2) | 7.2 (3.8) | <0.001 |
| Father's education, y | 3.9 (3.3) | 6.0 (4.5) | <0.001 |
| Wealth Index | | | <0.001 |
| Poor | 152.0 (56.9%) | 39.0 (13.5%) | |
| Middle | 90.0 (33.7%) | 80.0 (27.8%) | |
| Rich | 25.0 (9.4%) | 169.0 (58.7%) | |

¹Mean (SD); n (%)

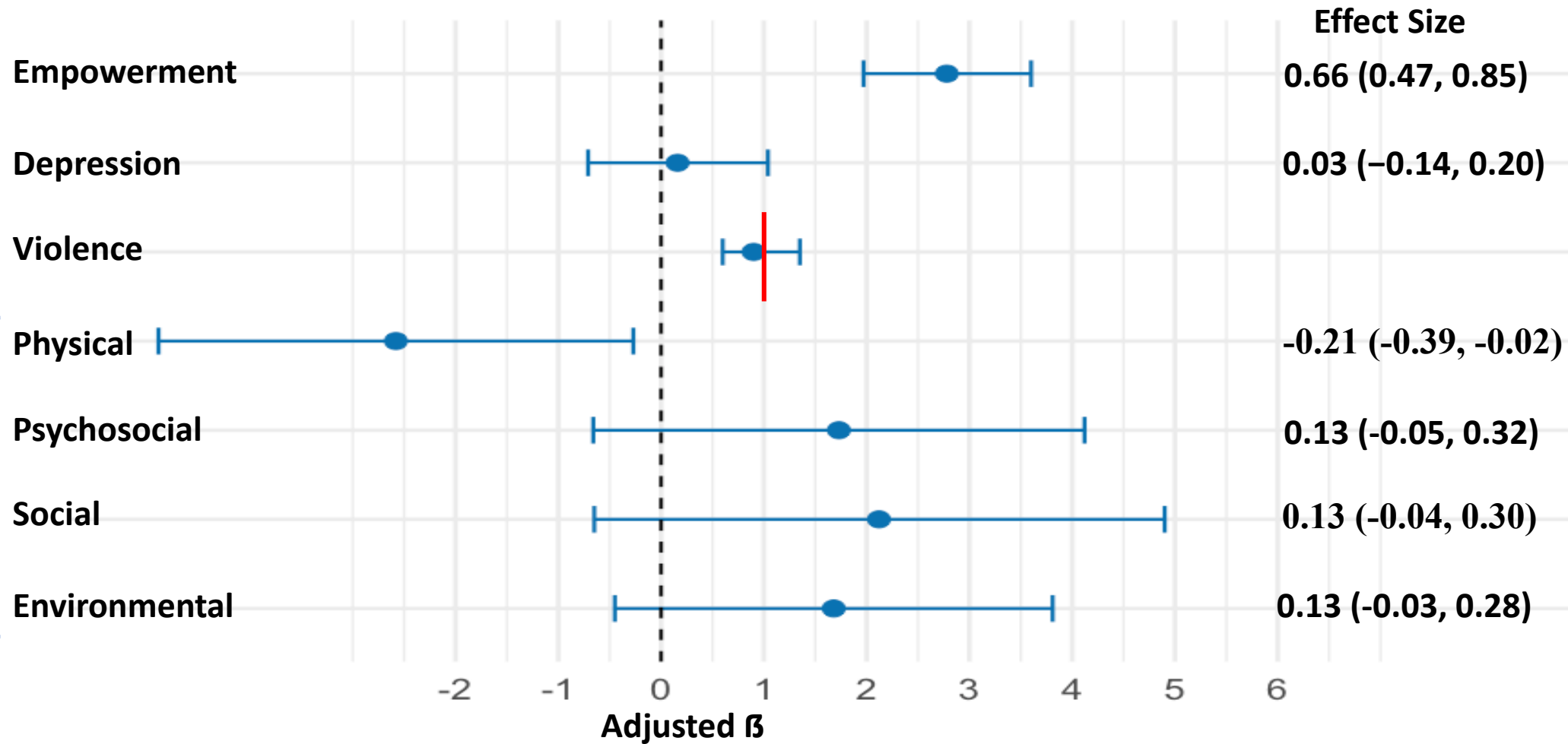
²Welch Two Sample t-test; Fisher's exact test

Findings for child outcome using regression analysis (UCT vs Comparison)



Findings for maternal outcome using regression analysis (UCT vs Comparison)

Quality of life



Strengths

- ✧ Parenting and unconditional cash can improve children's development at short-term
- ✧ The intervention can improve reading performance in the middle-term follow-up
- ✧ The intervention was effective to improve child stimulation environment immediately after the intervention and 5 years later
- ✧ The intervention can reduce maternal depressive symptoms at short and middle-term follow-up

Recommendation

- ✧ This intervention can be scaled in similar LMICs, especially in urban areas





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