

PREVENTION X CHILD WELLBEING: COGNITIVE FUNCTIONING

Training preschool teachers and involving parents/caregivers early can improve cognitive function outcomes for young children. There are too few studies in primary schools to assess effectiveness.

Evidence status	Low risk of bias	Strong evidence that early childhood teacher training and parent/caregiver engagement can improve cognitive outcomes for under-5s.
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The summary in brief

This cell has studies from low- and middle-income countries, except for one study from the US. The evidence demonstrates that preschool is a good time to train teachers and engage with parents and caregivers. Children in these programmes have better cognitive development outcomes and academic outcomes than their peers not in these programmes. The interventions were helping teachers better manage their preschool classrooms, reduce parental stress, and reduce violence against children.

Similar improvements are not seen for primary school students, albeit from only one study.

Contents of the cell

This cell includes six studies, all recent except one from 2015, (*Baker-Henningham 2019, Baker-Henningham 2021, Baker-Henningham 2021a, Francis 2021, Devries 2015, and Green 2020*) and three protocols (*Knight 2020, Lopez Garcia 2021, Scharpf 2021*).

Four of the completed primary studies come from Jamaica and were conducted by the same group of researchers (*Baker-Henningham 2019, 2021, 2021, and Francis 2021*). The other studies and protocols are from Uganda, Tanzania, Haiti, Ghana, (one protocol includes multiple countries) and the US.

The interventions

All the interventions examined in this cell aim to address either violence by teachers or engage with parents of young children to reduce stress and prevent violence against children.

1. The *Irie Classroom Toolbox* (*Baker-Henningham 2021*) and other interventions like it (*Baker-Henningham 2021a, and Baker-Henningham 2019*) target training of preschool and grade 1 teachers. Training is delivered via group sessions by trained facilitators. Teachers are taught better classroom management and how to avoid using violence as a form of punishment. Additionally, teachers also receive in-classroom support. The *Irie Homes Toolbox* (*Francis 2021*) is a version of the same intervention but targeted at parents of preschoolers. Parents are recruited from their children's preschool and invited to weekly group sessions over two school terms. The sessions are meant to motivate parents away from harsh disciplinary methods and teach them techniques to improve the quality of engagement with their children.

2. The *Good School Toolkit* for adolescents in various primary schools in a district in Uganda where violence against children by teachers is common. This is a whole-school programme to prevent violence against children, which means it engages multiple stakeholders such as teachers, school administrators, parents, and caregivers. Students are empowered to coordinate and plan many of the activities of the programme to reduce violence by teachers and other adults. One ongoing study (*Knight 2020*) will look at the long-term outcomes of this programme.
3. *Early Head Start* is an American federally supported programme for low-income households with young children (a few months to five years). This programme includes day-care services but can also incorporate home visits to better engage parents and caregivers.

The remaining protocols are on teacher training programmes to reduce teacher violence against students in Haiti (*Lopez Garcia 2021*) and Ghana, Tanzania, and Uganda (*Scharpf 2021*).

Who delivers the intervention?

Programmes examined in this cell were delivered by either researchers, NGO staff (*Good School Toolkit*), or programme staff (*Head Start*).

Have the interventions been implemented at scale?

Head Start is widely available in the US. The other interventions are small scale.

What do the interventions cost?

GST: A separate study by Greco et al found *GST* to be cost-effective. Implementing *GST* over 18 months in 21 schools cost close to \$400,000. Monitoring and evaluation add another \$50,000 to the cost. The annual cost to run *GST* was approximately \$7,500 per school and \$15 per student. It costs close to \$250 to prevent a case of violence (total costs including producing the materials for *GST*) and approximately \$100 in annual implementation costs (to keep the programme running excluding initial costs to launch the programme) for every prevented case.

No cost information is available for the other interventions.

How are the programmes meant to work? The theory of change

Programmes are informed by various behavioural theories, but no specific theory is highlighted.

Do the interventions work in improving cognitive function?

For young children, yes. These interventions seem to improve outcomes such as reading, oral language skills, and scores on standardized cognitive development tests.

However, these findings did not extend to primary school children in the GST programme. All educational outcomes such as word recognition, reading comprehension, spelling, and written numeracy were not significantly different for students in GST compared to those who were not.

How reliable is the evidence?

Pretty reliable. Most studies were rated ‘low risk of bias.’

Risk of Bias for Randomised Controlled Trials (RCTs)

Study (Author and year)	Overall risk of bias	Randomised process	Deviations from intended interventions	Missing outcome data	Measurement of the outcome	Selection of the reported result
<i>Baker-Henningham 2019</i>	Low risk of bias	Low risk	Low risk	Low risk	Low risk	Low risk
<i>Baker-Henningham 2021</i>	Low risk of bias	Low risk	Low risk	Low risk	Low risk	Low risk
<i>Baker-Henningham 2021</i>	Low risk of bias	Low risk	Low risk	Low risk	Low risk	Low risk
<i>Devries 2015</i>	High risk of bias	Low risk	Some concerns	Low risk	High risk	Some concerns
<i>Francis 2021</i>	Low risk of bias	Low risk	Low risk	Low risk	Low risk	Low risk
<i>Green 2020</i>	Some concerns	Some concerns	Low risk	Low risk	Low risk	Low risk