

# Roots of Empathy

Reviews: March 2017; February 2019

**Note on provider involvement:** This provider has agreed to EIF's terms of reference, and the assessment has been conducted and published with the full cooperation of the programme provider.

**Roots of Empathy is a universal classroom-based programme delivered to children from reception to year nine.**

The programme consists of 27 sessions delivered by a trained instructor.

Nine classroom visits by a local parent and baby are central to the programme. The instructor coaches the students to observe the baby's development and to label the baby's feelings. The programme consists of nine core themes based around the baby. The baby acts as a catalyst that the instructor uses to help children identify and reflect on their own feelings and the feelings of others.

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Evidence  
rating: **2+**

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Cost rating: **1**

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## EIF Programme Assessment

Roots of Empathy has **preliminary evidence** of improving a child outcome, but we cannot be confident that the programme caused the improvement.

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Evidence  
rating: **2+**

### What does the evidence rating mean?

**Level 2** indicates that the programme has evidence of improving a child outcome from a study involving at least 20 participants, representing 60% of the sample, using validated instruments.

This programme does not receive a rating of 3 as its best evidence is not from a rigorously conducted RCT or QED evaluation.

### What does the plus mean?

The plus rating indicates that a programme's best available evidence is based on an evaluation that is more rigorous than a level 2 standard but does not meet the criteria for level 3.

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## Cost rating

A rating of 1 indicates that a programme has a low cost to set up and deliver, compared with other interventions reviewed by EIF. This is equivalent to an estimated unit cost of less than £100.

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Cost rating: **1**

# Child outcomes

According to the best available evidence for this programme's impact, it can achieve the following positive outcomes for children:

Preventing crime, violence and antisocial behaviour

Reduced relational aggression (teacher rated)

Based on study 1

Reduced proactive aggression (teacher rated)

Based on study 1

Improved prosocial behaviour (teacher rated)

Based on study 2

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# Key programme characteristics

## Who is it for?

The best available evidence for this programme relates to the following age-groups:

- Primary school
- Preadolescents

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## How is it delivered?

The best available evidence for this programme relates to implementation through these delivery models:

- Group

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## Where is it delivered?

The best available evidence for this programme relates to its implementation in these settings:

- Primary school

The programme may also be delivered in these settings:

- Primary school

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## How is it targeted?

The best available evidence for this programme relates to its implementation as:

- Universal
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## Where has it been implemented?

Australia, Canada, England, Germany, Ireland, New Zealand, Northern Ireland, Switzerland, United Kingdom, United States, Wales

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## UK provision

This programme has been implemented in the UK.

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## UK evaluation

This programme's best evidence includes evaluation conducted in the UK.

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## Spotlight sets

EIF does not currently include this programme within any Spotlight set.

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## About the programme

### What happens during delivery?

#### How is it delivered?

- Roots of Empathy is delivered in 27 sessions of 30-40 minutes' duration each by an instructor to a classroom of children.

### What happens during the intervention?

- Roots of Empathy consists of 27 sessions which cover nine themes and include nine visits from a local parent and baby (two to four months at the start).
- The nine themes, which relate to the baby, are as follows: Meeting the Baby, Crying, Caring and Planning for the Baby, Emotions, Safety, Sleep, Communication, Who Am I? Goodbye and Good Wishes.
- Each theme involves three lessons: (1) a pre-family visit that introduces the theme; (2) a class visit by the infant and parent, where the instructor directs interactions and observations with baby and parent; and (3) a post-family visit where the students are guided to discuss the baby's visit and conclude the theme.
- During the intervention, children become engaged in lessons through stories, art projects and general classroom activities in which they reflect and discuss their own emotions and the emotions of others.

### What are the implementation requirements?

#### Who can deliver it?

- The practitioner who delivers this programme is a volunteer with recommended QCF-level 4/5.

## **What are the training requirements?**

- Practitioners have four days' training and ongoing mentor support. Booster training of practitioners is recommended.

## **How are the practitioners supervised?**

- It is recommended that practitioners are supervised by one external supervisor (qualified to QCF-level 4/5 with 1.5 days' training, as well as ongoing mentoring).

## **What are the systems for maintaining fidelity?**

- Provision of a training manual
- Other printed material
- Other online material
- Video or DVD training
- Face-to-face training
- Fidelity monitoring

## **Is there a licensing requirement?**

There is no licence required to run this programme.

## How does it work? (Theory of Change)

### How does it work?

- Roots of Empathy is based on research and theory stating that emotion processes and social understanding play critical roles in children's interpersonal relationships and social behaviours, including aggression.
- Over the school year, through guided observations of the loving relationship between parent and baby, children learn the affective aspect of empathy (emotion) and the cognitive aspect of empathy (perspective taking).
- Children develop emotional literacy as they identify and label the baby's feelings, reflect on and understand their own feelings and then bridge to understanding the feelings of others.
- By the end of the school year, children who participate in the Roots of Empathy programme show a decrease in aggression, including bullying, and an increase in prosocial behaviours. Children learn to regulate their emotions, building resilience and contributing to their wellbeing.

### Intended outcomes

Supporting children's mental health and wellbeing Preventing crime, violence and antisocial behaviour

### Contact details

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## About the evidence

Roots of Empathy's most rigorous evidence comes from a QED which was conducted in Canada (Schonert-Reichl et al. 2012) and an RCT which was conducted in Northern Ireland (Connolly et al. 2018). These studies identified statistically significant positive impact on a number of child outcomes.

A programme receives the same rating as its most robust studies, which in this case are the Schonert-Reichl et al (2012) and the Connolly et al (2018) studies, and so the programme receives a Level 2+ rating overall

## Study 1

**Citation:** Schonert-Reichl et al. 2012

**Design:** QED

**Country:** Canada

**Sample:** Children from fourth to seventh grades of 28 public elementary schools. The final sample consisted of 585 children (280 girls, 305 boys). The mean age was 10 years, 7 months.

**Timing:** Post-intervention

### Child outcomes:

- Reduced relational aggression (teacher rated)
- Reduced proactive aggression (teacher rated)

### Other outcomes:

- None measured

### Study rating: 2+

Schonert-Reichl, K. A., Smith, V., Zaidman-Zait, A., & Hertzman, C. (2012). Promoting children's prosocial behaviors in school: Impact of the "Roots of Empathy" programme on the social and emotional competence of school-aged children. *School Mental Health*, 4(1), 1–21.

**Available at:** <https://link.springer.com/article/10.1007/s12310-011-9064-7>

### Study design and sample

This study is a QED. The programme classrooms were matched with respect to gender of teacher, class size, grade level, and child characteristics.

This study was conducted in Canada and it involved children from fourth to seventh grades of 28 public elementary schools. 14 intervention classrooms and 14 control classrooms were included. The final sample consisted of 585 children with a mean age of 10 years, 7 months.

### Measures

Understanding of infant crying was measured using a task adapted from the infant facial expression of emotion (IFEEL) pictures (child self-report). Empathetic concern and perspective taking were measured using subscales of the Interpersonal Reactivity Index (child self-report). Child prosocial and aggressive behaviour were measured using peer nomination and behavioural assessment (peer report). Children's aggressive and prosocial behaviours were rated on corresponding subscales of the Child Behaviour Scale (teacher report).

### Findings

This study identified statistically significant positive impact on a number of child outcomes. This includes the following (only EIF outcomes based on scales with established reliability and validity are listed):

- Reduced proactive aggression (teacher report).
- Reduced relational aggression (teacher report).

The conclusions that can be drawn from this study are limited by methodological issues pertaining to the treatment and comparison groups not being generated by sufficiently robust methods, measurement not being blind to group assignment and the treatment condition not being modelled at the level of assignment.

## Study 2

**Citation:** Connolly et al., 2018

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**Design:** Cluster RCT

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**Country:** Northern Ireland

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**Sample:** 1674 pupils in year 5, between 8 and 9 years old, from 74 schools drawn from four of the five health and social care trusts areas in Northern Ireland

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**Timing:** Post-test; 12-month follow-up; 24-month follow-up; 36-month follow-up

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**Child outcomes:**

- Improved prosocial behaviour (teacher rated)
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**Other outcomes:**

- None measured
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**Study rating:** 2+

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Connolly, P., Miller, S., Kee, F., Sloan, S., Gildea, A., McIntosh, E., & Bland, J. M. (2018). A cluster randomised controlled trial and evaluation and cost-effectiveness analysis of the Roots of Empathy schools-based programme for improving social and emotional well-being outcomes among 8-to 9-year-olds in Northern Ireland. Public Health Research.

**Available at** [http://eprints.whiterose.ac.uk/129099/1/Connolly2018\\_1\\_.pdf](http://eprints.whiterose.ac.uk/129099/1/Connolly2018_1_.pdf)

### **Study design and sample**

The first study is a cluster RCT. Schools were randomly assigned to either the intervention (n = 37) or control (n = 37) groups. The intervention schools received the Roots of Empathy programme in their selected Year 5 class for one academic year (2011/12). The remaining schools in the waiting list control group continued with the regular curriculum and usual classroom activity. This study was conducted in Northern Ireland, with a sample of 1278 (pre-test) children aged between 8 and 9 years, 695 in the intervention group and 583 in the control group. The sample was fairly even in terms of gender. Overall families were of low SES background.

### **Measures**

Prosocial behaviour and total difficulties were measured using the Strengths and Difficulties Questionnaire (teacher report).

Prosocial behaviour and total difficulties were measured using the Strengths and Difficulties Questionnaire (parent report).

Prosocial behaviour and total difficulties were measured using the Strengths and Difficulties Questionnaire (child report).

Aggression and prosocial behaviour was measured using the Child Behaviour Scale (teacher report).

Understanding of infant feelings was measured using the Infant Facial Expression of Emotions Scale (child report).

Recognition of emotions was measured using the Recognition of Emotions Questionnaire (child report).

Emotional regulation was measured using the Child Anger Management Scale (child report).

Bullying was measured using the Revised Olweus Bully/ Victim questionnaire (child report).

Quality of Life was measured using Child Health Utility (child report).

### **Findings**

This study identified statistically significant positive impact on a number of child outcomes.

This includes prosocial behaviour as measured by the teacher-rated Strengths and Difficulties Questionnaire, and the Child Behaviour Survey.

The conclusions that can be drawn from this study are limited by methodological issues pertaining to high attrition, a lack of clarity around whether study attrition undermined the equivalence of the study groups, as well as issues relating to measurement, including: i) some measures not being independent of the measures used as part of the treatment and ii) non-blind data collection for some measures, hence why a higher rating is not achieved.

## Other studies

The following studies were identified for this programme but did not count towards the programme's overall evidence rating. A programme receives the same rating as its most robust study or studies.

Cain, G., & Carnellor, Y. (2008). "Roots of Empathy": A research study on its impact on teachers in Western Australia. *Journal of Student Wellbeing*, 2(1), 52–73 - **This reference refers to a qualitative study, conducted in Australia.**

Kendall, G., Schonert-Reichl, K., Smith, V., Jacoby, P., Austin, R., Stanley, F., & Hertzman, C. (2006). The evaluation of 'Roots of Empathy' in Western Australian schools (p. 35). Perth, Australia: Telethon Institute for Child Health Research - **This reference refers to a study, conducted in Australia.**

MacDonald, A., McLafferty, M., Bell, P., McCorkell, L., Walker, I., Smith, V., & Balfour, A. (2013). Evaluation of the Roots of Empathy Programme by North Lanarkshire Psychological Service. Edinburgh, Scotland: North Lanarkshire Psychological Service Research and Action for Children, UK - **This reference refers to a quasi-experimental study, conducted in the UK.**

Rolheiser, C., & Wallace, D. (2005). The Roots of Empathy programme as a strategy for increasing social and emotional learning. Programme Evaluation-Final report. Ontario Institute for Studies in Education, University of Toronto - **This reference refers to a randomised control trial, conducted in Canada.**

Santos, R. G., Chartier, M. J., Whalen, J. C., Chateau, D., & Boyd, L. (2011). Effectiveness of school-based violence prevention for children and youth: A research report. *Healthcare Quarterly (Toronto, Ont.)*, 14(S2), 80–91 - **This reference refers to a randomised control trial, conducted in Canada.**

Wrigley, J., Makara, K., & Elliot, D. (2015). Evaluation of Roots of Empathy in Scotland 2014-2015: Final Report for Action for Children - **This reference refers to a study, conducted in the UK.**

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## Guidebook

The EIF Guidebook provides information about early intervention programmes that have at least preliminary evidence of achieving positive outcomes for children. It provides information based on EIF's assessment of the strength of evidence for a programme's effectiveness, and on detail about programmes shared with us by those who design, run and deliver them.

The Guidebook serves an important starting point for commissioners to find out more about effective early interventions, and for programme providers to find out more about what good evidence of impact looks like and how it can be captured. As just one of our key resources for commissioners and practitioners, the Guidebook is an essential part of EIF's work to support the development of and investment in effective early intervention programmes.

Our assessment of the evidence for a programme's effectiveness can inform and support certain parts of a commissioning decision, but it is not a substitute for professional judgment. Evidence about what has worked in the past offers no guarantee that an approach will work in all circumstances. Crucially, the Guidebook is not a market comparison website: ratings and other information should not be interpreted as a specific recommendation, kite mark or endorsement for any programme.

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[How to read the Guidebook](#)

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[EIF evidence standards](#)

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[About the EIF Guidebook](#)

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## EIF

The Early Intervention Foundation (EIF) is an independent charity and a member of the What Works network. We support the use of effective early intervention for children, young people and their families: identifying signals of risk, and responding with effective interventions to improve outcomes, reduce hardship and save the public money in the long term.

We work by generating evidence and knowledge of what works in our field, putting this information in the hands of commissioners, practitioners and policymakers, and supporting the adoption of the evidence in local areas and relevant sectors.

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[www{EIF.org.uk](http://www{EIF.org.uk) | [@TheEIFoundation](https://twitter.com/TheEIFoundation)

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