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Play and Learning Strategies

Reviews: Foundations for Life, July 2016; September 2021

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.

Play and Learning Strategies (PALS) is a targeted home-visiting programme delivered to parents of vulnerable children between 6 and 10-months old.

The programme is delivered by trained PALS facilitators through 14 weekly sessions lasting 90 minutes each. During these sessions, facilitators coach mothers on how to respond sensitively and appropriately to their infants' cues, and provide a stimulating environment through rich language and cognitive activities and games. Coaching takes place through the use of videotapes of mothers modelling appropriate behaviour, and videotapes of the parent and infant interacting together filmed at the end of each session.

A top-up intervention called PALS II is available when the child is between 18 months and 4 years old. This involves 11 additional 90-minute weekly sessions.

Evidence rating: **2+**

Cost rating: **2**

EIF Programme Assessment

Play and Learning Strategies has **preliminary evidence** of improving a child outcome, but we cannot be confident that the programme caused the improvement.

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.

Note: The RCT underpinning the EIF strength of evidence rating examines the efficacy of PALS I and PALS II, as well as the two in combination.

Cost rating

A rating of 2 indicates that a programme has a medium-low cost to set up and deliver, compared with other interventions reviewed by EIF. This is equivalent to an estimated unit cost of £100–£499.

Cost rating: **2**

Child outcomes

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

Enhancing school achievement & employment

Improved early communication

Based on study 1

Improved goal-directed play

Based on study 1

Improved social engagement (PALS I)

Based on study 1

Improved receptive vocabulary (PALS II)

Based on study 1

Improved expressive comprehension (PALS II)

Based on study 1

Improved print knowledge

Based on study 2

Preventing crime, violence and antisocial behaviour

Improved effortful control

Based on study 2

Improved self-regulation

Based on study 2

This programme also has evidence of supporting positive outcomes for couples, parents or families that may be relevant to a commissioning decision. Please see the 'About the evidence' section for more detail.

Key programme characteristics

Who is it for?

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

- Infants

How is it delivered?

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

- Home visiting

Where is it delivered?

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

- Home

The programme may also be delivered in these settings:

- Home

How is it targeted?

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

- Targeted selective

Where has it been implemented?

United States

UK provision

This programme has not been implemented in the UK.

UK evaluation

This programme's best evidence does not include evaluation conducted in the UK.

Spotlight sets

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

About the programme

What happens during delivery?

How is it delivered?

- PALS is delivered by one home visitor/parent educator to individual families over 14 sessions of 1.5 hours duration each.

What happens during the intervention?

- Each session provided by the home visitors is guided by a detailed curriculum, which is designed to teach behaviours that allow parents to be more responsive to the needs of their children.
- In each session, facilitators ask mothers to review their experiences in the last week and assess to what extent they achieved the target behaviours set out by the curriculum.
- Mothers are also shown an educational videotape of mothers from similar backgrounds displaying the target behaviours. This is then further discussed with the practitioner.
- Interactions between the mother and the child are videotaped at times chosen by the mother. The mother is supported in assessing her behaviours and her child's responses.
- The home visitor supports the mother in planning how they are going to work to make their parenting more responsive and sensitive in the time before the next session.

What are the implementation requirements?

Who can deliver it?

- The practitioner who delivers the programme is a home visitor/parent educator with QCF-6 qualifications.

What are the training requirements?

- The practitioner has 36 hours of programme training. Booster training of practitioners is not required.

How are the practitioners supervised?

- It is recommended that practitioners are supervised by one host-agency supervisor, qualified to QCF-6 level, providing clinical, skills and case management supervision.

What are the systems for maintaining fidelity?

Not available

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?

- PALS assumes that parenting practices in which mothers readily and sensitively respond to their children's needs can improve their cognitive, social and linguistic abilities.
- The programme aims to teach mothers skills such as providing positive verbal encouragement to the child, being more receptive to their behaviour and providing a stimulating environment for their child's development.
- In the short term, parents respond more sensitively to their children's needs, treat the child with greater warmth and positivity and exhibit behaviours that encourage their child's development.
- Ultimately, the children have better social and communication skills and have improved cognitive abilities.

Intended outcomes

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About the evidence

PALS' most rigorous evidence comes from two RCT's conducted in the USA. Both studies identified statistically significant positive impact on a number of child outcomes.

A programme receives the same rating as its most robust study/studies, and so the programme receives a Level 2+ rating overall.

Study 1

Citation: Landry, et al (2006); Landry, et al (2008)

Design: RCT

Country: United States

Sample: 264 mothers with term and low-birthweight infants and 166 participants from the original study when their child reached two-years old

Timing: Mid-programme; post-test; three-month follow-up

Child outcomes:

- Improved early communication
- Improved goal-directed play
- Improved social engagement (PALS I)
- Improved receptive vocabulary (PALS II)
- Improved expressive comprehension (PALS II)

Other outcomes:

- Increased maternal sensitive responding Improved redirecting (PALS I and II) Improved verbal encouragement (PALS II)

Study rating: 2+

Landry, S. H., Smith, K.E., & Swank, P.R. (2006). Responsive parenting: Establishing early foundations for social, communication, and independent problem-solving skills. *Developmental Psychology,42,* 627-42.
Landry, S.H., Smith, K.E., Swank, P.R., & Guttentag, C. (2008). A responsive parenting intervention: The optimal timing across early childhood for impacting maternal behaviours and child outcomes. *Developmental Psychology, 44,* 1335-1353.
Available athttps://www.ncbi.nlm.nih.gov/pubmed/16802896
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2570562/

Study design and sample

The first study is an RCT.
This study involved random assignment of mothers with term and very low birthweight infants to a PALS treatment group and a developmental-feedback comparison group.
This study was conducted in the US, with a sample of 264 mothers with term and low birth weight infants recruited from three hospitals serving families from lower income backgrounds.

Measures

Infant behaviours with mothers (social skills, early communication, negative/positive affect, social engagement, use of words, coordinating attention and use of words) were measured using coded observation (expert observation of behaviour). Infant behaviours with examiners were measured using coded observation (expert observation of behaviour). Infant independent goal-directed play was measured using coded observation (expert observation of behaviour). Child language skills were measured using standardised language measures, specifically the Peabody Picture Vocabulary Test-3rd edition (direct assessment), Preschool Language Scale-3rd edition (direct assessment).
Maternal observed behaviours (contingent responsivity, warm sensitivity, positive affect, harshness of voice tone, physical intrusiveness, restrictiveness, maintaining, redirecting, verbal scaffolding, labelling objects, labelling actions, verbal encouragement) were measured using the Landry Parent-Child Interaction Scales (expert observation of behaviour).

Findings

This study identified statistically significant positive impact on a number of child and parent outcomes. Child outcomes include:

- Improved early communication.
- Improved goal-directed play.
- Improved social engagement (PALS I)
- Improved receptive vocabulary (PALS II)
- Improved expressive comprehension (PALS II)

The conclusions that can be drawn from this study are limited by methodological issues pertaining to a lack of intention-to-treat analysis, and a lack of clarity in terms of differential attrition.

Study 2

Citation: Landry et al., (2017)

Design: RCT

Country: United States

Sample: 434 children between 3.18 and 5.99 years old (M = 4.38 years), where families are experiencing socioeconomic disadvantage and participating in Head Start.

Timing: Post-test

Child outcomes:

- Improved print knowledge
- Improved effortful control
- Improved self-regulation

Other outcomes:

- None measured

Study rating: 2

Landry, S. H., Zucker, T. A., Williams, J. M., Merz, E. C., Guttentag, C. L., & Taylor, H. B. (2017). Improving school readiness of high-risk preschoolers: Combining high quality instructional strategies with responsive training for teachers and parents. *Early Childhood Research Quarterly, 40*, 38-51.
Available at https://doi.org/10.1016/j.ecresq.2016.12.001

Study design and sample

The second study is an RCT.
This study involved random assignment of children to a PALS treatment group and a group that received written handouts.
This study was conducted in the United States, with a sample of children between 3.18 and 5.99 years old (M = 4.38 years), where families are experiencing socioeconomic disadvantage and participating in Head Start. Children were predominantly Hispanic/Latino (70%) and African American (29%) with 35% of children speaking Spanish at home. The majority of children (96%) qualified for free school lunch.

Measures

Print knowledge and phonological awareness were measured using the Test of Preschool Early Literacy (direct assessment). Effortful control was measured using the Children's Behaviour Questionnaire (teacher- and parent-report). Social competence was measured using the Social Competence and Behaviour Evaluation (teacher- and parent-report). School Liking and Avoidance was measured using the School Liking and Avoidance Questionnaire (teacher-report). Self-regulation was measured using the Gift Delay-Wrap task (direct assessment), the Gift Delay-Bow task (direct assessment) and the Bear-Dragon task (direct assessment).
Language skills were measured using a “composite language skills factor” consisting of the Expressive One-Word Picture Vocabulary Test (EOWPVT), Pre-school Language Scales (PLS) auditory comprehension scale, Pre-school Language Scales (PLS) expressive communication scale, and the Test of Preschool Early Literacy (TOPEL) definitional vocabulary subscale.

Findings

This study identified statistically significant positive impact on parent-reported effortful control. Statistically significant positive impact was also identified on print knowledge and self-regulation (Gift-Delay Wrap task). The conclusions that can be drawn from this study are limited by issues pertaining to a lack of clarity around how randomisation was conducted, and a lack of clarity in terms of attrition, hence why a higher rating is not achieved.

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.

How to read the Guidebook

EIF evidence standards

About the EIF Guidebook

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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