



preparing for life

Early Childhood Intervention

48 Month Summary Report



UCD Geary Institute
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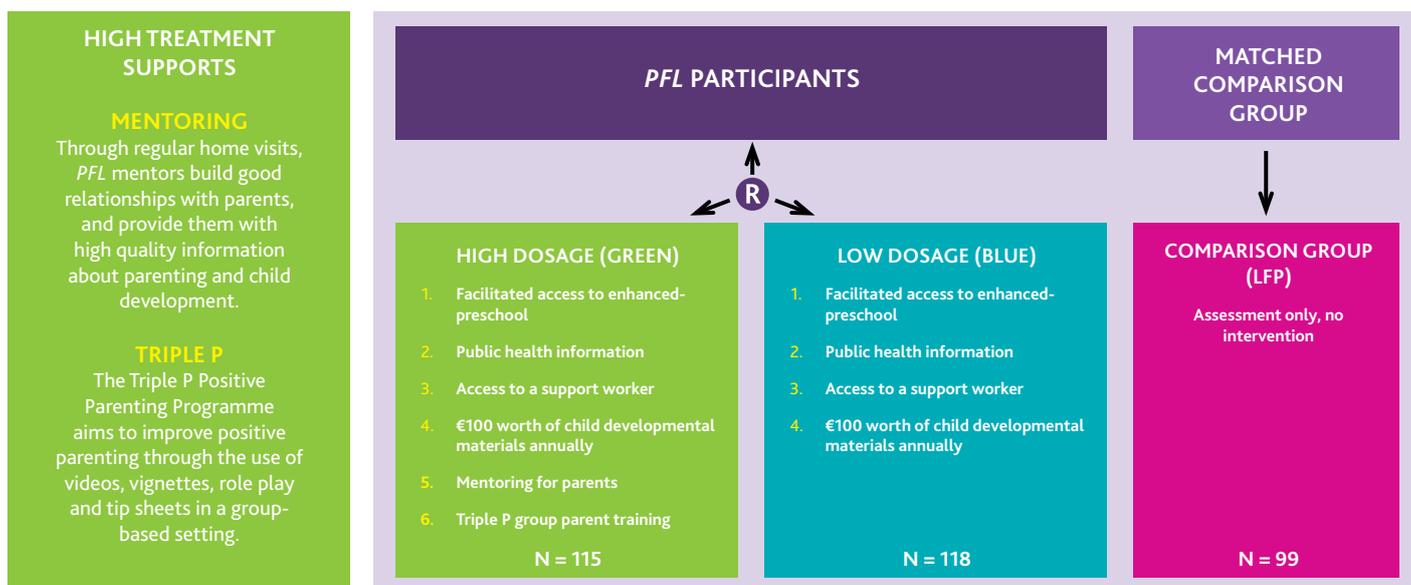
preparing for life



Preparing for Life (PFL) is a prevention and early intervention programme which aims to improve the life outcomes of children and families living in Dublin, Ireland, by intervening during pregnancy and working with families until the children start school. This report briefly highlights the aims, methods, and findings from the evaluation of the programme which took place when the *PFL* children were forty-eight months old and were preparing to leave the programme.

Design of *PFL*

The programme is being evaluated using a longitudinal randomised control trial design whereby participants from the *PFL* communities were randomly assigned to a high support treatment group or a low support treatment group. A comparison group from a different community provided an additional control group. This diagram describes the *PFL* services.



Summary of Previous Results

233 pregnant women were recruited into the *PFL* programme (115 in the high treatment group and 118 in the low treatment group) and 99 women were recruited from a comparison group. Analysis of the baseline data showed that the randomisation procedure was successful.

Evaluations of *PFL* up to thirty-six months indicated that the impact of the programme increased over time with a number of significant differences identified between the high and low treatment groups at six (14%), twelve (8%), eighteen (14%), twenty-four (21%), and thirty-six (22%) months. Many of the relationships were in the hypothesised direction with the high treatment group reporting somewhat better outcomes than the low treatment group. Areas where significant effects have been found include child development, child health, parenting, the quality of the home environment, maternal health, and social support.

Aims of the Forty-Eight Month Evaluation

- To determine whether the *PFL* programme had an impact on parent and child outcomes at and before forty-eight months.
- To provide a detailed review of implementation practices regarding attrition, participant engagement, misreporting, and contamination.

Results at Forty-Eight Months

A total of 217 ($n_{High} = 74$; $n_{Low} = 73$; $n_{LFP} = 70$) forty-eight month interviews were completed. The outcomes of the high treatment group were compared to the outcomes of the low treatment group across eight domains: Child Development, Child Health, Parenting, Home Environment, Maternal Health & Wellbeing, Social Support, Childcare, and Household Factors & Socioeconomic Status (SES).

Based on the literature, we hypothesised that there would be moderate positive effects on child development, parenting, maternal health and well-being, and household factors and SES at forty-eight months. These findings were not as strong as anticipated. We expected to find limited positive effects in the areas of child health, home environment, maternal social support, and childcare and these findings were largely as anticipated, yet the positive effects found on child health exceeded expectations. In total, 12% (23/191) of the outcomes analysed showed significant differences between the high and low treatment groups. Significant treatment effects were found across all domains except childcare. This represents a drop in the number of positive findings compared to the previous time point at thirty-six months. In order to account for potential bias which differential attrition may introduce, these analyses were re-estimated using an Inverse Probability Weighting

(IPW) technique. When IPW was applied, the number of individual significant findings increased from 12% to 18%. Substantial increases in treatment effects were found in the domains of child development, child health, and maternal health. The boxes below document some of the main treatment effects in the unweighted analysis.

CHILD DEVELOPMENT

- Stronger cognitive development
- Fewer externalising and internalising behaviour problems
- More sophisticated fine motor skills

CHILD HEALTH

- Less likely to be asthmatic
- More likely to consume recommended amount of vegetables
- Less likely to be overweight
- Better sleep duration and fewer sleep disturbances
- More likely to be toilet trained

PARENTING

- Fewer permissive parenting behaviours
- Child spends less time watching TV alone

HOME ENVIRONMENT

- Child less exposed to cigarette smoke at home
- Social worker less likely to be working with family

MATERNAL HEALTH & WELLBEING

- More likely to report being in good health
- Lower consumption of alcohol and less likely to binge drink

MATERNAL SOCIAL SUPPORT

- More likely to have voted in last local, European and general elections

HOUSEHOLD FACTORS & SES

- Fewer mental health issues in family

CHILDCARE

- No differences

Interaction Results

Interaction analyses were conducted to determine whether the programme had a varying impact on girls or boys, first time or non-first time mothers, and mothers with higher or lower cognitive resources.

The findings indicated that at forty-eight months, the *PFL* programme may have been particularly beneficial to the children of first time mothers and the children of mothers with lower cognitive resources. The programme did not affect girls and boys differently.

PFL Implementation Analysis

ATTRITION

Sixteen percent of the sample dropped out of the programme between baseline and forty-eight months (*High* = 19%, *Low* = 17%, *LFP* = 12%). There were no dropouts in the high treatment and comparison group between thirty-six and forty-eight months, and only 1% dropped out in the low treatment group. At forty-eight months the rates of disengagement across the high and low treatment groups were 17% and 21% respectively, and 17% for the comparison group. There is some evidence that more disadvantaged participants were more difficult to contact or more likely to have dropped out of the programme by forty-eight months. An Inverse Probability Weighting procedure was used to account for such differential attrition.

ENGAGEMENT

Families in the high treatment group received an average of 54 home visits from the *PFL* mentors between programme intake and forty-eight months, with each visit lasting slightly under one hour on average. The number and duration of visits were roughly similar across each time period prior to thirty-six months, averaging once per month. However, between thirty-six and forty-eight months, this reduced to approximately once every six weeks. This may be attributed to participant fatigue during the last year of the programme, as well as the reports from mentors indicating a reduction in contact time in order to ensure successful transition for families when exiting the programme. Consistent with previous reports, mothers with higher cognitive resources participated in more home visits and spent more total time in visits.

MISREPORTING

It is possible that participants chose to answer the interview questions in a way that they felt was socially acceptable, or favourable to the researcher. Potential misreporting by the high and low treatment groups was measured using a bogus question which tested the participants' knowledge of a fake child development term. A small and similar proportion of both groups were likely to claim to have heard the term. This suggests that the results were unlikely to be biased by high treatment group members providing answers which they felt portrayed a better image of themselves as parents.

CONTAMINATION

A contamination analysis was conducted to determine whether the low treatment group may have benefited from supports received by the high treatment group. This could occur through the sharing of information or materials between participants. The findings indicated that while the potential for contamination between groups was quite high, the level of contamination in the *PFL* programme up to forty-eight months was low and did not bias the forty-eight month results.

PFL Evaluation: Findings to Date

The number of significant findings at forty-eight months represents a decline from those found at thirty-six months. The figure below highlights areas that were significant by domain for each time period of the *PFL* evaluation.

Summary of Main Findings at Six, Twelve, Eighteen, Twenty-Four, Thirty-Six, & Forty-Eight Months						
PFL Low – PFL High	Proportion of Measures Significantly Different					
	Six Months		Twelve Months		Eighteen Months	
	Individual Tests	Multiple Hypothesis Tests	Individual Tests	Multiple Hypothesis Tests	Individual Tests	Multiple Hypothesis Tests
Child Development	0% (13)	0% (2)	7% (28)	20% (5)	16% (25)	0% (6)
Child Health	10% (30)	0% (3)	17% (23)	0% (4)	24% (17)	67% (3)
Parenting	23% (22)	20% (5)	0% (16)	0% (2)	20% (10)	50% (2)
Home Environment	36% (22)	50% (2)	0% (6)	0% (1)	33% (21)	67% (3)
Maternal Health & Wellbeing	5% (20)	25% (4)	4% (28)	25% (4)	5% (19)	0% (3)
Social Support	38% (13)	0% (2)	43% (7)	0% (2)	8% (12)	0% (3)
Childcare	7% (14)	0% (2)	~	~	0% (16)	0% (2)
Household Factors & SES	0% (26)	0% (5)	3% (32)	0% (5)	8% (23)	0% (5)
Total Statistically Different	14% (23/160)	12% (3/25)	8% (11/140)	9% (2/23)	14% (21/152)	19% (5/27)

	Twenty-Four Months		Thirty-Six Months		Forty-Eight Months	
	Individual Tests	Multiple Hypothesis Tests	Individual Tests	Multiple Hypothesis Tests	Individual Tests	Multiple Hypothesis Tests
Child Development	34% (41)	22% (9)	33% (39)	38% (8)	19% (32)	17% (6)
Child Health	47% (17)	50% (2)	24% (21)	33% (3)	17% (35)	0% (5)
Parenting	18% (17)	0% (3)	26% (34)	43% (7)	6% (36)	0% (8)
Home Environment	50% (2)	~	40% (15)	50% (2)	50% (4)	~
Maternal Health & Wellbeing	6% (16)	0% (3)	24% (17)	33% (3)	14% (21)	25% (4)
Social Support	10% (19)	0% (4)	5% (19)	0% (4)	14% (14)	33% (3)
Childcare	0% (7)	0% (1)	0% (17)	0% (2)	0% (8)	0% (1)
Household Factors & SES	13% (47)	29% (7)	14% (42)	0% (6)	5% (41)	20% (5)
Total Statistically Different	21% (34/166)	17% (5/29)	22% (44/204)	26% (9/35)	12% (23/191)	13% (4/32)

The forty-eight month report is the sixth and penultimate in a series of reports which present the results of the *PFL* evaluation. After the forty-eight month evaluation, participants will have left, or will be preparing to leave, the *PFL* programme. The final report will provide an overview of the *PFL* findings from baseline to forty-eight months, and will examine the children's school readiness skills as they enter primary school.

The typical life of a PFL child at 48 months based on the data collected

Kirsty is now four and is soon to leave the *PFL* programme and start school. She lives with her Mam and Dad who are unmarried, her big brother and her granny. Kirsty and her Mam still see their mentor, but they see her less often than before, usually once every six weeks. Kirsty's Mam is in good health and does not drink too much. However, life has its difficulties: her Mam sometimes feels very down, although she does not have any diagnosed mental health issues, she has a medical card, and Kirsty's Dad is unemployed.

At the moment, Kirsty spends a good part of the week in formal childcare which is helping her prepare for the important step of starting school. Her Mam feels that she has all the mental skills needed to move into a school setting, and she also has good fine motor skills which will help her with day-to-day classroom tasks like handwriting. She is fully toilet trained which is important for school. Kirsty is typically in good form and does not get depressed, anxious or act out in a way that makes her Mam concerned. Her parents always set rules for Kirsty, for example, during the day Kirsty likes to watch TV but her Mam will always watch it with her. Unlike some of her friends, she does not have asthma and nobody in her house smokes around her.

A more detailed report of the forty-eight month *PFL* evaluation can be found at the following website under publications:

<http://geary.ucd.ie/preparingforlife>