Parenting Mental Health and Early Intervention:

The impact of parental distress on parenting and child development in an early childhood intervention

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Overview

- Presentation of research based on 6 month results of *Preparing for Life* evaluation.

- Subgroup analysis focusing on mothers with poor emotional wellbeing.

Do distressed mothers respond to the *PFL* programme differently?

Introduction

- Literature suggests that the most "at risk" families benefit from early intervention to the greatest extent.
- Home visiting most effective for:
  - First time mothers (Ravn et al., 2011; Du Mont et al., 2010)
  - Single mothers (Olds et al., 2004)
  - Parents with lower cognitive resources (Landsman & Ramey, 1989; Brooks-Gunn, Gross, Kraemer, Spiker, & Shapiro, 1992; Martin, Ramey & Ramey, 1990)
  - Families experiencing high levels of domestic risk (Sweet & Applebaum, 2004).

Literature review

- Poor maternal mental health can impact negatively on child development & is associated with:
  - delayed language and cognitive development,
  - insecure attachment,
  - difficulties in social interaction,
  - behavioural problems (Petterson & Burke Albers, 2001).
- Mental health affects parenting practices, in turn affecting child outcomes.
- Mental health is important to consider in evaluations of home visitation as it can mediate treatment outcomes (Ammerman et al., 2010).

Literature: Mental health and early intervention

- Maternal depression barrier to delivery of home visiting interventions; depressed mothers can be more difficult to engage (Ammerman et al., 2010).

- The interaction of compromised mental health with the effectiveness of home visiting programmes is mixed;

  Positive interaction:

  - Children of depressed mothers demonstrate better social-emotional behaviour in EHS than non-depressed mothers (Ammerman et al., 2010).
  - Treatment prevented increasing levels of abuse and neglect for women with little control over their lives, compared to controls (Olds et al., 1986).

  Negative interaction:

  - Depressed mothers receiving treatment are more likely to exhibit increased parent-child dysfunctional interactions than non-depressed mothers (Ammerman et al., 2010).

Hypothesis

- *PFL* will buffer the negative effects of maternal psychological distress on parenting and child outcomes (Kemp et al., 2011).
  - Distressed mothers in the high treatment group will have significantly better parenting and child development outcomes than low treatment group mothers.
  - The treatment will raise the parenting and child development scores of distressed mothers, bringing them up to the same level of functioning as the rest of the sample.

Analytic Subgroup

- WHO5 measure assesses emotional wellbeing (WHO, 1998).
- Score <13 indicates poor wellbeing, this is an indication that depression should be tested for.
- WHO-5 is a psychometric tool that has been proven to be a reliable instrument for the detection of depression in the general population (Henkel et al. 2003).
- Emotional wellbeing was measured antenatally at baseline by the WHO5 instrument.
- 40% of sample score below WHO5 cut-off at baseline; 43% high, 37% low.

Six month outcomes

- The outcomes assessed include child development and parenting outcomes:
  - Child Development (ASQ; Squires et al., 1999).
  - Parental Cognition and Conduct Towards Infant (PACOTIS; Boivin et al., 2005)
  - Parental Locus of Control (PLOC; Campis, Lyman, & Prentice-Dunn, 1986).
  - Parental Stress (PSI; Abidin, 1995).
  - Interaction with Baby (Centres for the Prevention of Child Neglect, 2000).
  - Maternal Attachment (CMAS; Condon & Corkindale, 1998).

Analysis

- Sample divided according to mental health status.
  - Distressed mothers (scoring below WHO5 cut-off) are divided from mothers above this threshold.
- Each subgroup of mothers is compared across treatment conditions.
- Effects were estimated by regressions with interaction terms, which are compared to each other:

  Distressed High, Distressed Low, Non-distressed High, Non-Distressed Low

Results: Child Development

Measure	Distressed Low Mean (SD)	Non-Distressed Low Mean (SD)	Distressed High Mean (SD)	Non-Distressed High Mean (SD)	Treatment Effect: Distressed (H v L)	Treatment Effect: Non-Distressed (H v L)
ASQ Communication	48.59 (9.69)	53.51 (7.32)	52.9 (7.83)	53.63 (7.29)	**P=0.03**	*ns*
ASQ Problem Solving Cut-Off (negative outcome)	0.22 (0.42)	0.00 (0.00)	0.10 (0.30)	0.06 (0.24)	P=0.06	*ns*

- **Not significant ASQ scales**: Gross Motor, Fine Motor, Problem Solving, Personal Social, Social and emotional.
- **Not significant ASQ Cut-offs** : Communication, Gross Motor, Fine Motor, Personal Social, Social and Emotional.

Results: Locus of Control and Stress

Measure	Distressed Low Mean (SD)	Non-Distressed Low Mean (SD)	Distressed High Mean (SD)	Non-Distressed High Mean (SD)	Treatment Effect: Distressed (H v L)	Treatment Effect: Non-Distressed (H v L)
PLOC Total (negative outcome)	47.56 (6.25)	44.51 (7.9)	43.84 (7.95)	44.71 (8.52)	P=0.06	*ns*
PLOC Parental Control of Child Behaviour (negative outcome)	8.28 (2.69)	6.61 (2.46)	6.97 (2.56)	6.94 (2.98)	**P=0.05**	*ns*
PSI Stress Cut-Off (negative outcome)	0.13 (0.34)	0.02 (0.13)	0.03 (0.18)	0.00 (0)	**P=0.05**	*ns*

- **Not significant PLOC:** Efficacy, Responsibility, Control Parent Life, Belief in Fate.
- **Not Significant PSI:** Difficult Child, Distress, Parent-Child Dysfunctional Interactions, Defensive Responding, Total Stress.

Results: Parental Cognition and Conduct, and Interaction

Measure	Distressed Low Mean (SD)	Non-Distressed Low Mean (SD)	Distressed High Mean (SD)	Non-Distressed High Mean (SD)	Treatment Effect: Distressed (H v L)	Treatment Effect: Non-Distressed (H v L)
PACOTIS Parental Hostile-Reactive Behaviour (negative outcome)	1.33 (1.38)	0.89 (1.09)	0.68 (0.67)	0.88 (1.34)	**P=0.03**	*ns*
PACOTIS Parental Warmth	9.37 (1.29)	9.16 (1.27)	8.85 (1.33)	9.39 (1.03)	P=0.09	*ns*
Interaction with Baby	2.41 (0.47)	2.81 (0.52)	2.76 (0.58)	2.79 (0.63)	**P=0.01**	*ns*

- **Not Significant PACOTIS:** Parental self-efficacy, perceived parental impact, overprotection, baby comparison.
- **No CMAS subscales significant.**

Discussion

- Difficult to identify treatment effects of home visiting programmes at 6 months of age.
  - Only study looking at 6 month outcomes for distressed mothers; others look at 12 months earliest, usually incorporated with 18, 24 and 36 month data.
- Some significant interaction effects for parenting and child development measures but many sub-domains see no effects.
  - Distressed mothers benefit more than non-distressed mothers
- The program seems to be having the greatest effect where distressed mothers are expected to demonstrate poor outcomes; locus of control, stress and interaction with baby.
- Although results at six months are few they are largely in the expected direction and in the expected domains, therefore effects may grow at the programme progresses.

Future research

- Subgroup analysis at future time points may reveal a growing discrepancy between the parenting and child development outcomes of mothers experiencing poor and better mental health.

- Future work will reveal whether the small treatment effects demonstrated at 6 months will grow over time.

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Questions/Comments

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