Contextual family factors in the relationship between paternal depression and child internalising

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Background

• Internalising symptoms:
  – Depression symptoms
  – Anxiety symptoms

• Prevalence of internalising symptoms among children and adolescents is increasing (National Academics of Science, Engineering and Medicine, 2019).

• Increase in suicide rates.

• Internalising symptoms negative effects on a child and adolescents quality of life
• **Long-term effects:** e.g., Depression during adolescents puts the person at increased risk of depression in adult life (Dunn, & Goodyer, 2006; McLeod et al., 2016)

• **The adolescent period:** increased prevalence of internalising symptoms (Maughan et al., 2013; Merikangas et al., 2010)

• Therefore, adolescents appear to be highly vulnerable during this time to developing internalising symptoms
Depression in Adolescence

- **Symptoms:** social withdrawal, poor concentration, low mood, anhedonia, sleep disturbances, fatigue (APA, 2013).

- Anger and irritability appear to be key for adolescents.

- Irritability presents as anger and aggression towards others or themselves (Fava et al; 2010; Midgley et al., 2015).

- Qualitative research: short-tempered, short fuse, getting into arguments (Midgley, 2015)
Risk factors for developing internalising symptoms in children and adolescents

• Risk factors fall mainly into two categories (Genetic and Environmental)

• Genetic:
  – Family history of depression (Maughan et al., 2013)

• Environmental:
  – Having depressed parents (Tully et al., 2008) ➔ less positive and more negative parenting (Goodman et al., 2020).
  – Higher levels of parental aggressive behaviour (Schwartz et al., 2012).
  – Marital conflict - direct and indirect effects (Cummings et al., 2005; Hanington et al., 2012)
• **Interpersonal theories**: interpersonal disputes between family members important in the onset of depression (Bernaras et al., 2019)

• **Rohner’s rejection theory**: links psychological adjustment in adolescents to their own perception of being accepted/rejected by caregiver.
• Increasing desire to be involved in childcare (Reimer, 2017)

• However mother’s remain the predominant Primary Caregiver (99% in GUI dataset) with fathers predominantly Secondary Caregivers (99% in GUI).

• At greater risk of suffering mental health issues upon becoming a father (Fisher, 2017).
Longitudinal research

- Research from the ALSPAC (Gutierrez-Galve et al., 2015)
  - Paternal depression and child outcomes associations
  - Significant results at 42 and 81 months respectively
  - Familial factors (maternal depression, couple conflict) mediate two-thirds of the association between paternal depression and child outcomes at 3.5 years and 7 years
  - This research does not extend into the adolescent years

- GUI and Millennium cohort study (UK) (Lewis et al., 2017)
  - Found an independent association between paternal depression and adolescent depressive symptoms
A model was proposed which acknowledged the influence of the father across childhood and how this impacts on child development:

- Genetics: their own depression
- Conflictual parenting
- Indirectly through maternal depression
- Indirectly through couple conflict
- Conflict in the father-child relationship (irritability of adolescent)
- Fathers scoring highly on positive parenting will have a protective role
• Hypotheses:
  – Paternal depression will be associated with higher levels of internalising symptoms among children/adolescents
  – Especially strong during adolescence when the adolescent is more likely to be in conflict with the father
  – Mediated by a poor father-child relationship and increased levels of conflict between the two.
• **Present Study:**
  • Growing Up in Ireland Child Cohort Wave 1 (N= 8,568), Wave 2 (N = 7,525) and Wave 3 (N= 6,216)
    – - Inclusion criteria:
      • Secondary Caregiver (SCG) = Male
      • SCG = same individual in each of the three waves
      • Two-parent families
      • Both biological and non-biological parents included
  
  – analysis of paternal depression was only examined solely in SCG fathers

  – Due to inclusion criteria, participant size was (N= 4,587)
Difficulties

• Initially hope to analyse paternal depression in male PCG’s and male SCG’s

• Proved difficult to separate the data analysis based on the above and to differentiate from the results whether the PCG or SCG was male.

• As such, it was decided that Male SCG’s would be the focus as this comprised of 99% of males
Measures

- **Parental Depression**: Centre for Epidemiological Studies Depression Scale (CES-D) (Melchior et al., 1993)
- **Parent-Child Relationship**: Pianta Child-Parent Relationship Scale (CPRS) (Pianta, 1992)
- **Child Outcomes**: Strengths and Difficulties Questionnaire (SDQ) (Goodman et al., 1998)
- **Parenting Style**: The Parenting Style Inventory II (Darling, & Toyokawa, 1997)
- **Couple Conflict**: Dyadic Adjustment Scale (DAS) (Spanier, 1976)
- **Socioeconomic Status**: Total Income (Quintiles), Father education, Father employment status
The Model

• **Predictor Variables:**
  – SCG Depression, SCG Closeness, SCG Conflict, SCG Dependence
  – PCG Depression, PCG Dependence, PCG Closeness, PCG Conflict
  – Dyadic Adjustment PCG, Dyadic Adjustment SCG, Mother parenting style, Father parenting style
  – Equivalised Household Annual Income-Quintiles, SCG Education, SCG Employment Status, (and child internalising scores from the previous wave)

• **Criterion Variable:**
  – Child/adolescent Internalising
Findings

• Results: Broken down into Child Outcomes based on whether the father was biological or non-biological (stepfather/other)

• Standard Multiple regression analysis was performed to determine how well levels of internalising symptoms of study children of biological and non-biological fathers respectively could be explained by the variables of interest across waves.

• E.g., Predictor variables in Wave 1 predicting criterion variable (child outcomes) in Wave 2 in children of biological fathers
Results

- Child Outcomes (Bio. Fathers) – Predictor variables Wave 1, outcome Wave 2

- Model explained 28.5% of variance in child internalising scores (F (16, 3716) = 92.40, p < .001).

Multiple regression model predicting internalising symptoms in children of biological fathers in Wave 2, using Wave 1 variables.

<table>
<thead>
<tr>
<th>Model</th>
<th>R²</th>
<th>Adj R²</th>
<th>β</th>
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Note: R² = R-squared; Adj R² = Adjusted R-squared; β = standardized beta value; unstandardized beta value; SE = Standard errors of B; CI 95% (B) = 95% confidence interval for B; N = 4,429; Statistical significance: *p < .05; **p < .01; ***p < .001
Results

• Child Outcomes (Non-Bio. SCG’s)- Predictor variables Wave 1, Outcome Wave 2

• Sample size (N= 158)

• The model explained 30% of variance in internalising symptoms scores (F (11, 115) = 4.52, p <.001).

• Child internalising symptoms in Wave 1 (β = .30) was most strongly associated with levels of child internalising symptoms in Wave 2.

• No other variables significantly associated with child outcomes in Wave 1 for this group
Results

- **Child Outcomes (Bio. Fathers) – Predictor variables Wave 1, outcome Wave 3**

- The model as a whole explained 18.5% of variance in internalising symptoms scores ($F (16, 3716) = 52.70, p < .001$)

- Strongest predictor of child internalising in Wave 3: Child internalising Wave 1 ($\beta = .33$)

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• Child Outcomes (Non-Bio. SCG’s) – Predictor variables W1, Outcome W3

• The model explained 27% of variance in internalising symptoms scores (F(11, 115) = 3.85, p <.001)

• Child internalising symptoms in Wave 1 (β = .4) was the only variable associated with levels of child internalising symptoms in Wave 3.
• Child Outcomes (Bio. Fathers) – Predictor variables Wave 2, outcome Wave 3

• The model explained 27.9% of variance in internalising symptoms scores (F (12, 3661) = 118.06, p < .001)

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### Results

Multiple regression model predicting internalising symptoms in children of biological fathers in Wave 3, using Wave 2 variables.

<table>
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<th>Model</th>
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Results

• Child Outcomes (Non-Bio. SCG’s)- Predictor Variable Wave 2, Outcome Wave 3

• The model explained 23% of variance in internalising symptoms scores ($F(9, 127) = 4.22$, $p < .001$)

• Child internalising symptoms in Wave 2 ($\beta = .41$) was most strongly associated with levels of child internalising symptoms in Wave 3.

• Only other significant in the model: PCG depression ($\beta = .20$)
Findings indicate that the influence of the father, through factors such as conflict with their child and through their parenting style, can have longitudinal effects on a child’s internalising symptoms.
Implications (Children with bio. Fathers)

- **Strongest predictor of future child internalising:** A history of internalising symptoms.

- Significance of Father-child conflict and father parenting style between 9 and 13 years, and Father-child conflict between 13 and 17/18 years supports research highlighting the prominence of anger, aggression and conflict as a characteristic of adolescent internalising.

- Paternal depression not directly significant
  Possibly linked to more negative parenting (conflict, aggression)?
Implications (Children with bio. Fathers)

• This Father-child conflict is notwithstanding the stronger effect of maternal depression and mother-child conflict

• Prominence of parent-child conflict:

• Mother as PCG:
  – Mother-child conflict at 9 years: predicts child outcomes at 13 years and 17/18 years respectively.
  – Maternal depression, closeness, dependence also predict child outcomes at 17/18 years.
  – No direct effects of paternal variables across the same period; mother remains most influential on child outcomes.
Implications (Non-bio. fathers)

• A history of child internalising was the sole significant variable associated with child outcomes

• Maternal depression important at 13 yrs to predict adolescent internalising at 17/18 years.

• Points to familial transmission:
  – other environmental factors could not be identified for this group, possibly due to the above variables having such a strong influence.
Conclusions

• **Strongest predictor** → previous history of internalising

• Greater parent-child conflict → higher levels of internalising in adolescence.

• Living with a depressed parent, particularly a depressed mother as PCG is a significant risk factor for child internalising.

• Paternal influence is significant at different timepoints.

• Comparison of Maternal Primary Caregiver influence vs. Paternal Secondary Caregiver influence.
Conclusions

• Model – accounts for between 18.5% and 28.5% of variance in child internalising

• Internalising therefore not solely a reflection of lived experience

• Experience is significant

• Internalising better explained as a culmination of the interaction between experience and genetics.
Thank you for your time!
References


• Hanington, L., Heron, J., Stein, A., & Ramchandani, P. (2012). Parental depression and child outcomes—is marital conflict the missing link?. *Child: care, health and development, 38*(4), 520-529

References