Early Intervention for Childhood Anxiety Disorders in the Offspring of Parents with Bipolar Disorder



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Abstract

Background

Bipolar disorder (BD) typically emerges in adolescence and young adulthood and follows a chronic, disabling course. Offspring of affected parents carry heightened genetic and environmental vulnerability, and their childhood anxiety often signals later mood-disorder risk—yet tailored early interventions are lacking.

Objective

To characterise anxiety risk in offspring of parents with BD, elucidate BD-specific family and parenting factors that contribute to this risk, and evaluate existing parent- and family-focused interventions to inform the design of targeted early support.

Methods

I used a convergent mixed-methods design comprising:

1. A systematic review and meta-analysis of 35 studies comparing anxiety disorder prevalence in offspring of parents with mood disorders vs controls.
2. A qualitative meta-synthesis of 19 studies exploring parenting experiences in BD-affected families.
3. In-depth semi-structured interviews with 11 parents with BD (and their partners) and 12 mental health professionals and charity workers.
4. A systematic review of parent- and family-focused interventions for offspring at familial risk of BD.

Results

The meta-analysis demonstrated that offspring of parents with BD have a roughly doubled risk of anxiety disorders (across multiple subtypes) from childhood onwards—mirroring rates in offspring of parents with unipolar depression. The qualitative synthesis identified three core environmental pathways—parenting behaviours, child support, and BD communication—shaped by parental mood swings and interacting with child development. In-depth interviews highlighted mood-driven parenting challenges and resources stemming from BD-related experiences, highlighting the need for flexible, empowerment-based support. Finally, existing parent- and family-focused interventions consistently improve child psychopathology by enhancing the family environment, supporting the adaptation of parent-led CBT for child anxiety problems in BD-affected families.

Conclusion

Childhood anxiety is a prominent early manifestation in preadolescent offspring of parents with BD, closely tied to BD-related family dynamics. Developing and testing interventions that adapt parent-led CBT—integrating sensitive psychoeducation about BD-anxiety links, strategies to stabilise parenting inconsistencies, and structured family communication—may mitigate long-term psychopathology in this vulnerable population.

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Declaration

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Chapter 6

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Abbreviation

A-LIFE: Adolescent Longitudinal Interval Follow-up Evaluation

AD: anxiety disorder

ADHD: attention-deficit/hyperactivity disorder

BASC-2: Behaviour Assessment System for Children, Second Edition

BD: bipolar disorder

BD-I: bipolar I disorder

BD-II: bipolar II disorder

BIOS: Bipolar Offspring Study

CALS: Children's Affective Lability Scale

CASP: Critical Appraisal Skills Programme

CBQ: Conflict Behaviour Questionnaire

CBT: cognitive-behavioural therapy

CHAOS: Confusion, Hubbub and Order Scale

CD: conduct disorder

CES-D: Centre for Epidemiologic Studies Depression Scale

CI: confidence interval

CMHT: community mental health team

DD: dysthymic disorder

DIGS: Diagnostic Interview for Genetic Studies

DSM: Diagnostic and Statistical Manual of Mental Disorders

Dx: diagnosis

EC: enhanced care

ECBI: Eyberg Child Behaviour Inventory

EMA: ecological momentary assessment

ENTREQ: Enhancing Transparency in Reporting the Synthesis of Qualitative Research

FFT-HR: Family-Focused Therapy High-Risk protocol

FTI: Family Talk Intervention

FU: follow-up

GAD: generalised anxiety disorder

GWAS: genome-wide association study

HAM-A: Hamilton Anxiety Rating Scale

HC: healthy control

HR: hazard ratio

ICD: International Classification of Diseases

IBPI: Integrated Bipolar Parenting Intervention

I^2: I-squared statistic (measure of heterogeneity)

ISS: Internal States Scale

IPSRT: interpersonal and social rhythm therapy

K-SADS: Kiddie Schedule for Affective Disorders and Schizophrenia for School-Age Children

MDE: major depressive episode

MD: mood disorders

MBCT-C: mindfulness-based cognitive behavioural therapy for children

MDD: major depressive disorder

MAS: Mania Rating Scale

MINI: Mini-International Neuropsychiatric Interview

NA: not applicable

NHS: National Health Service

NS: not specified

OBD: offspring of parents with bipolar disorder

OHC: offspring of parents without psychiatric disorders

ONAD: offspring of parents without affective disorders

ONBD: offspring of parents without bipolar disorder

OUD: offspring of parents with unipolar depression

OR: odds ratio

OSI: Online Support and Intervention for Child Anxiety

PAPA: Preschool Age Psychiatric Assessment

PD: panic disorder

PL–CBT: parent-led cognitive behavioural therapy

PND: post-natal depression

PPI: Public and Patient Involvement

PRIS: Parent as Respondent Informant Schedule

PRISMA: Preferred Reporting Items for Systematic Reviews and Meta-Analyses

PRS: polygenic risk scores

PTG: posttraumatic growth

PTSD: post-traumatic stress disorder

PS: Parenting Scale

PSOC: Parenting Sense of Competence Scale

PSRs: psychiatric status ratings

QE: quasi-experimental design

RCT: randomised controlled trial

RR: risk ratio

RUSH: Reducing Unwanted Stress in the Home

SAD: separation anxiety disorder

SAS: Social Adjustment Scale

SCID: Structured Clinical Interview for DSM

SDQ: Strengths and Difficulties Questionnaire

SMI: severe mental illness

SOC: social phobia

SP: specific phobia

SUD: substance use disorder

TA: thematic analysis

TF: trim-and-fill (publication-bias correction)

Chapter 1: Introduction—The Critical Need for Early Intervention in Bipolar Disorder and Research Objectives

1.1 Why Focus on Early Intervention for Bipolar Disorder?

Bipolar disorder (BD) is characterised by extreme, chronic mood fluctuations, ranging from major depression to mania. Affecting approximately 2% of the global population, it imposes a significant public health burden due to its early onset, severity, and persistent nature (Ferrari et al., 2016). Nearly 80% of cases emerge during adolescence or early adulthood, with a median onset age of 20 years (Bolton et al., 2021; Nierenberg et al., 2023). This timing often disrupts critical life transitions—such as pursuing higher education or starting a career (Ratheesh et al., 2023)—amplifying its long-term impact. Longitudinal studies show that BD follows a chronic course, with symptoms present for 47% of weeks in bipolar I and 56% in bipolar II—primarily dominated by depression (Judd et al., 2003). This persistence contributes to long-term functional impairment, especially in occupational domains (Judd et al., 2008). Moreover, BD carries a high risk of suicidality, with approximately 34% of individuals attempting suicide and 15–20% eventually dying by suicide (Dong et al., 2019a). Individuals with BD also experience increased medical comorbidities, including cardiovascular disease, and have an 8.5– to 9.0–year reduction in life expectancy, reflecting roughly twice the all-cause mortality rate of the general population (Crump et al., 2013). Given these severe personal health

implications and the substantial economic burden, primarily due to lost productivity and informal caregiving (Simon et al., 2021), early and effective intervention is essential. Addressing BD proactively can therefore mitigate not only individual suffering but also the broader societal impacts by enhancing functional outcomes and reducing overall costs.

Clinicians face significant risks of misdiagnosis and delayed diagnosis, both of which are associated with poorer treatment outcomes due to the reduced efficacy of interventions when initiated later in the illness course (Goes, 2023), highlighting the need for earlier intervention. Diagnosing BD primarily relies on clinical phenomenology due to the lack of reliable biological markers. Depression often appears first and predominates in BD, making subsequent hypomanic symptoms hard to detect and easily mistaken for typical developmental changes. Mixed mood states and comorbidities further complicate diagnosis (Malhi et al., 2017). These diagnostic challenges result in an average delay of 8–10 years before BD is correctly identified (Fritz et al., 2017). Such delays extend the duration of untreated symptoms, significantly worsening long-term outcomes, including elevated suicide risk and diminished social functioning (Bauer et al., 2018; Joyce et al., 2016). Moreover, evidence indicates that early-stage BD is more treatment-sensitive. Medications like lithium, valproate, and olanzapine are more effective in patients with fewer than 10 episodes (Joyce et al., 2016). Similarly, group psychoeducation and cognitive-behavioural therapy (CBT) delay recurrence more effectively in those with six or fewer episodes (Colom et al., 2010; Scott et al., 2006).

BD's clinical, neurocognitive, and functional progression also necessitates early intervention. A higher number of lifetime episodes increases the risk of recurrence and progression to chronic stages of BD (Cremaschi et al., 2024; Kessing & Andersen, 2017). Additionally, while evidence of premorbid cognitive deficits remains inconsistent, subtle impairments in specific domains such as attention and executive function may be present prior to BD onset in a subset of individuals (Van Rheenen et al., 2020). In one first-episode study, about one-third of patients showed significantly lower global cognitive and verbal memory scores than their peers (Chakrabarty et al., 2023). Approximately one-third (32.4%) of patients with BD exhibit impaired social cognition, particularly in emotional intelligence, with this impairment linked to longer illness duration (Varo et al., 2022). At least half of patients with BD (49.4%) exhibit progressive functional impairment, including in autonomy, occupational functioning, and interpersonal relationships over time, which is closely linked to a higher number of relapses as well as greater neurocognitive deficits (López-Villarreal et al., 2020). Supporting this, the ENIGMA Bipolar Disorder Working Group associates frequent manic episodes with accelerated cortical thinning in prefrontal regions (Abé et al., 2022). Post (2021) argues that repeated episodes, combined with stress-induced neurobiological changes, heighten BD's neuroprogression—a process that worsens severity and treatment resistance over time and causes increased reactivity to stressors after each episode. Taken together, these findings highlight a critical treatment-sensitive window during which early intervention can

significantly alter the disease trajectory, mitigating neurological and functional deterioration, enhancing quality of life for individuals, and alleviating the substantial societal and economic burdens associated with BD.

1.2 Why Focus on Offspring of Parents with Bipolar Disorder?

While early intervention in BD is critical, universal prevention strategies are neither efficient nor practical. BD's low prevalence (approximately 2%), diverse clinical presentations, and variable ages of onset make broad screening resource-intensive and unlikely to produce timely results. Therefore, targeting high-risk groups—particularly children of parents with BD, who exhibit significantly elevated vulnerability due to gene-environment interactions and more clearly identifiable prodromal phases—provides a promising avenue for research aimed at developing early interventions.

Family history remains the strongest predictor of BD risk, and genetic tools currently cannot replace the predictive value of family history. BD's robust genetic foundation is well documented, with heritability estimates ranging from 60–85% (Bienvenu, 2011; Johansson, 2019). Reflecting this genetic influence, the risk of BD follows a clear familial gradient—first-degree relatives face a significantly higher risk (RR = 5.8–7.9) compared to second-degree (RR = 2.2–3.3) and third-degree (RR = 1.6) relatives (Song et al., 2015). Consistent with this gradient, Vieta et al. (2018) emphasise that having a parent with BD, especially early-onset BD,

is the most reliable risk factor, underscoring the importance of focusing research specifically on children of affected parents. Recent advances in genetic research, including a genome-wide association study (GWAS) identifying 298 candidate genes linked to BD, have improved our understanding. However, polygenic risk scores (PRSs), which estimate BD liability by combining these variants, explain only 5.8–9.0% of the variance (AUC ≈ 0.70) (O'Connell et al., 2025). This modest predictive power underscores that genetic screening alone cannot yet reliably identify high-risk individuals. The limitations of GWAS-derived PRSs, such as their incomplete capture of rare variants, gene–gene and gene–environment interactions, further restrict their utility for individual risk assessment in diverse clinical settings (Tu & Duffy, 2024). Consequently, family history remains the cornerstone for identifying high-risk groups, as it signals a robust elevation in risk. For instance, a national registry study found that by age 18, offspring of parents with BD faced an 11-fold higher BD risk, alongside elevated risks of low school grades (HR = 1.65, 95% CI: 1.57–1.73), violent and property crime (HR = 1.61, 95% CI: 1.42–1.83, and HR = 1.57, 95% CI: 1.45–1.71), victimisation (HR = 1.76, 95% CI: 1.56–1.98), and suicide attempts (HR = 2.47, 95% CI: 2.18–2.80), highlighting their broader psychosocial vulnerability (Lageborn et al., 2024).

Offspring of parents with BD also face heightened exposure to environmental stressors, such as increased family conflict and reduced cohesion, which interact with genetic vulnerabilities to raise mental health risks (Menculini et al., 2020; Pan et al., 2017). These

gene-environment interactions offer valuable insights for early intervention strategies. This vulnerability may manifest biologically, with evidence of a more reactive hypothalamic–pituitary–adrenal (HPA) axis (Ostiguy et al., 2011) and amplified neural responses to stress, particularly in the amygdala during emotion processing and the fronto–striatal network during reward processing (Acuff et al., 2019; Hanford et al., 2019). Thus, the elevated genetic risk, coupled with clear developmental markers, makes these offspring an ideal group for testing early intervention strategies. These findings highlight the urgent need for such research in this vulnerable population, as their current psychopathology warrants timely treatment.

1.3 Why Focus on Childhood Anxiety in Offspring of Parents with Bipolar Disorder?

Longitudinal research on offspring of parents with BD helps clarify the developmental trajectory of psychiatric disorders, distinguishing early vulnerability from illness burden, and identifying optimal early intervention targets (Duffy, 2015). These offspring exhibit elevated psychiatric risk as early as preschool, with a fourfold higher prevalence of diagnoses compared to controls (55% vs 14%; Abel et al. (2024)), including emotional dysregulation, behavioural problems (e.g., aggression, noncompliance), anxiety, and sleep disturbances (Maoz et al., 2014; Tseng et al., 2015). The Canadian high-risk cohort study outlines a progressive trajectory model starting with familial risk without symptoms (stage 0), progressing to non-mood disorders such as anxiety disorders, sleep disorders, and ADHD during primary school age (stage 1, median onset 9.4–10.0 years), and later evolving into minor and major mood disorders

(stages 2–3; median onset 13.0–19.8 years), and ultimately culminating in the BD spectrum (stage 4; median onset 20.1–21years). Complementing this, Post et al. (2020) propose a four-stage model synthesising existing literature, beginning with genetic, perinatal, and environmental risk phases (stages I–II), followed by heterotypic symptoms (e.g., anxiety, ADHD) and homotypic prodromal symptoms (e.g., depression, cyclothymia) as markers before the onset of full BD (stages III–IV). Given the varied developmental trajectories and prodromal manifestations in offspring of parents with BD, selecting the optimal timing and targets for intervention is crucial.

However, intervening too early during the asymptomatic "healthy" stage may pose practical challenges, including concerns about over-labelling and a lack of perceived need for support (Davison & Scott, 2018), as well as difficulties in pinpointing truly at-risk individuals due to the non-specific nature of early adversities (Vieta et al., 2018). Moreover, without reliable biomarkers or clear environmental targets, the potential harms of overly early interventions might outweigh their benefits (Berk et al., 2017; Parker, 2022). In contrast, targeting emerging psychopathology at the prodromal stage can alleviate current distress, with potential benefits for long-term outcomes (Saraf et al., 2021).

Anxiety disorders, compared to other non-mood prodromes such as sleep disorders and ADHD, consistently predict progression to mood disorders, making them a particularly promising target for early intervention. A systematic review by Buckley et al. (2023) examined

(1) general-population studies, which indicate childhood and adolescent anxiety disorders increase later BD risk by two- to twelvefold, and (2) studies specifically examining offspring of parents with BD (summarised in **Table 1**), which show that childhood anxiety disorders (onset before age 12) predict a two- to fourfold increase in major mood disorders, including major depression (Rudaz et al., 2021) and bipolar spectrum disorder (Hafeman et al., 2016). Although the direct predictive link between early anxiety and later full-blown hypomania/mania remains less clear, anxiety appears to play a critical role in this trajectory. Emerging evidence indicates that anxiety disorders and BD partially share neurobiological underpinnings, including dysregulation of the hypothalamic-pituitary-adrenal (HPA) axis (Faravelli et al., 2012; Milo et al., 2024; Serravalle et al., 2025), circadian rhythm disruptions (Chung et al., 2024; Lei et al., 2024; Meyer et al., 2024), and altered amygdala-prefrontal circuitry (Acuff et al., 2018; Olsavsky et al., 2012; Tseng et al., 2021). Within this overlapping neurobiology, anxiety likely emerges as an early behavioural expression of latent vulnerability, with its observable symptoms signaling underlying biological anomalies. Thus, treating anxiety in pre-adolescents who have a parent with BD represents a critical intervention point in the developmental pathway to BD.

Table 1.1. Summary of Anxiety Symptoms and Disorders and Subsequent Major Mood Disorders in High-Risk Offspring Studies[1]

Author (Year)	Description	Finding on Anxiety	Predicts Mood Disorders?
Nurnberger et al. (2011)	Followed 141 OBD and 91 OHC for around 3 years (aged 12–21, mean 17 years, at baseline)	9 of 25 (36%) with early-onset anxiety (≤12 years) later developed a major mood disorder (adjusted RR = 2.6, 95% CI: 1.1–6.3, compared to those without early-onset anxiety/behavioural disorders)	Early-onset anxiety predicts later major mood disorders
Egeland et al. (2012) *Amish Study*	Followed 115 OBD and 106 OHC from childhood for 16 years to identify prodromal features and assess risk of transition to BD-I	Early anxiety-related symptoms (e.g., anxious/worried, fearful, ages 3–12) were frequently seen before later BD-I onset, appearing in 7 of 9 BD-I cases, suggesting their potential as a prodrome	Anxiety symptoms emerge before BD
Axelson et al. (2015) *Pittsburgh BIOS study*	Followed 391 OBD and 248 OHC for around 7 years (aged 6–18 at baseline)	Anxiety disorders show a trend towards increased risk for later mania/hypomania in univariate analyses (HR = 1.86, 95% CI: 0.97–3.59, p = .06), but they do not independently predict mania/hypomania in multivariate models (considering other psychopathology)	Anxiety per se is not an independent driver of hypo/mania risk

Hafeman et al. (2016) *Pittsburgh BIOS study*	Followed 359 OBD and 220 OHC for 8 years (aged 6–18 at baseline)	Baseline internalising symptoms (including anxiety/depression; HR = 1.78, 95% CI: 1.37–2.31, $p < .001$) and a lifetime anxiety disorder diagnosis at the proximal follow-up visit ($\chi^2 = 5.35$, $p = .02$) predicted new-onset bipolar spectrum disorders.	Anxiety disorders predict new-onset bipolar spectrum disorder
Duffy et al. (2019) *The Flourish Canadian high-risk study*	Followed 279 OBD and 87 OHC in a dynamic cohort for a mean follow-up of 7.72 years, with a mean age at intake of 16.48 years for OBD, age range of 5–25 years at baseline	Childhood anxiety nearly doubled any mood disorder risk in OBD compared to OHC (HR = 1.84 [1.24–2.74])	Anxiety disorders predict later mood disorders
Dong et al. (2019b) *The Flourish Canadian high-risk study*	Followed a subset of OBD (N = 156) in the Canadian High-Risk Cohort	HAM-A scores were significantly associated with an increased hazard of major mood disorders (HR = 2.91 in Joint model and 1.74 in Cox model)	Anxiety symptoms predict major mood disorders
Nery et al. (2020)	Followed 93 OBD for around 3 years (aged 9–20 years, mean 13.7 years, at baseline) to identify predictors of transition to a major mood episode (N = 19 converters and N = 74 non-converters)	Anxiety disorders at baseline raised mood episode risk (OR = 4.4 [1.1–16.7]). Their effect weakened with antidepressant exposure, suggesting interaction or confounding where antidepressants (for anxiety/depression) may mediate or amplify conversion	Anxiety disorders predict major mood disorders

Rudaz et al. (2021) *Lausanne–Geneva high-risk study*	Followed 449 children of parents with mood disorders (BD or MDD), SUD and no psychiatric conditions (controls) for 13 years (aged 6–17, mean 10.1 years, at baseline)	Anxiety disorders predicted MDD (HR: SAD = 1.53 [1.09–2.15], GAD = 2.56 [1.05–6.24]; PD = 3.13 [1.06–9.23]) but not (hypo)mania, despite often preceding (hypo)manic episodes temporally (19/25, 76%)	Anxiety disorders predict MDD

Note: BD = bipolar disorder; BD-I = bipolar I disorder; GAD = generalised anxiety disorder; HAM-A = Hamilton Anxiety Rating Scale; MDD = major depressive disorder; OBD = offspring of parents with BD; OHC = offspring of parents without psychiatric disorders; PD = panic disorder; SAD = separation anxiety disorder, SUD = substance use disorder

[1] The table is adapted from Buckley et al. (2023)

Given anxiety's predictive relationship with mood disorders, one might question why we should not directly intervene when mood disorders appear, especially considering the efficacy of established interventions such as family-focused therapy (FFT; Miklowitz et al., 2020b). However, intervening during adolescence—when mood disorders typically emerge—introduces significant complexity due to increased psychiatric comorbidities (e.g., anxiety at 63.7%, ADHD at 38.6%, and disruptive behaviours at 25.2%; Weintraub et al. (2020)) and heightened suicidality (Goldstein et al., 2011). Moreover, pharmacological interventions, particularly SSRIs like fluoxetine, which are recommended as an acute intervention for moderate-to-severe depression in youth (Zhou et al., 2020), pose substantial risks of converting to BD among youth of parents with BD (OR = 6.6, p = .005; Nery et al. (2020)). Furthermore, deteriorating family environments, marked by declining cohesion and increasing conflict from childhood through adolescence in offspring of parents with BD (Shalev et al., 2019), complicate interventions at these later stages. Therefore, prioritising psychological interventions targeting childhood anxiety disorders before adolescence can be a practical and safer approach in the context of parental BD. By intervening earlier, when psychopathology and environmental risks are relatively simpler, less intensive psychological treatments might be feasible for parents whose engagement could be hindered by mood-related difficulties. In addition, intervening early reduces reliance on pharmacotherapy, addressing safety concerns regarding medication use raised by Saraf et al. (2021). In essence, effectively addressing

anxiety early not only helps alleviate current distress but may also mitigate progression towards adolescent depression, thereby significantly reducing future BD risk.

In addition to reducing anxiety symptoms directly, treating childhood anxiety disorders provides a valuable opportunity to mitigate broader psychological risk factors associated with the progression to mood disorders in offspring of parents with BD. Psychological factors such as avoidant coping (HR = 1.89, 95% CI: 1.02–3.41) and low self-esteem (HR = 2.50, 95% CI: 1.39–4.54) significantly increase the risk of new-onset or recurrent mood episodes in high-risk offspring (Goodday et al., 2019a). However, these psychological vulnerabilities tend to deteriorate following mood episodes, supporting a "scar" effect whereby susceptibility increases after depressive episodes in adolescence or early adulthood (Goodday et al., 2019b). Notably, interventions targeting anxiety in children may improve these vulnerabilities. For instance, Martinsen et al. (2021) demonstrated that a CBT-based intervention for anxious children aged 8 to 12 significantly increased self-esteem ($p = .018$). Moreover, Hirshfeld-Becker et al. (2010) found that CBT for children with anxiety disorder (aged 4–7 years) significantly improved parent-rated child coping abilities ($p = .011$), with effects maintained for at least one year. These findings suggest that early treatment of anxiety can enhance resilience in high-risk offspring, potentially protecting them from developing mood episodes and the associated psychological scarring.

Nevertheless, Parker (2022) argues that childhood anxiety disorders, while prevalent across the general population and not unique to offspring of parents with BD, may lack the specificity needed to serve as early markers of BD risk. He warns that labelling these widespread symptoms as precursors to BD could mischaracterise typical developmental patterns as pathological, potentially leading to overdiagnosis. This critique underscores a critical gap in our understanding of how anxiety manifests in high-risk offspring—whether parental BD is significantly associated with an increased risk of anxiety disorders that warrant intervention, whether anxiety in these offspring exhibits distinct patterns (e.g., specific subtype risks or unique moderators) that require tailored rather than general treatment approaches, and at what age these risks begin to escalate in order to inform optimal timing for intervention. To address these questions, Chapter 2 undertakes a systematic investigation of the risks of anxiety disorders in offspring of parents with BD, using offspring of parents with unipolar depression and those of parents without mood disorders as comparative groups. This approach aims to clarify the specificity of anxiety disorders as an early indicator of BD risk, their relevance for targeted prevention strategies, and the critical developmental windows and subgroup factors that should guide intervention efforts.

Chapter 2: Systematic Review and Meta-analysis: Risks of Anxiety Disorders in Offspring of Parents with Mood Disorders (Paper 1)

2.1 Introduction

Understanding the risks of anxiety disorders in the offspring of parents with mood disorders is critical, as childhood anxiety not only appears at higher rates in these offspring but also precedes the development of mood disorders (Duffy et al., 2013; Rudaz et al., 2021). While the focus of this thesis is on bipolar disorder (BD), examining mood disorders more broadly—including both BD and unipolar depression—serves a key purpose: it provides a comparison group that enables us to determine whether observed risks are specific to BD or also hold true for unipolar depression, thereby clarifying whether certain risk factors are unique to BD or shared across mood disorders, offering insights into the transgenerational transmission of anxiety risks. Research indicates a 30% prevalence of anxiety disorders in children of parents with either BD or unipolar depression (Rasic et al., 2014). In addition, there remains limited understanding of the specific types of anxiety disorders that pose the greatest risk and whether these risks differ by parental mood disorder subtype. Consequently, in this chapter, I will first assess anxiety risks collectively in the offspring of parents with mood disorders, followed by subgroup analyses comparing the transgenerational transmission patterns of BD and unipolar depression. Clarifying the relative risk associated with BD in the context of mood disorders ultimately has the potential to advance prevention, early identification, and treatment strategies for high-risk youth.

Previous studies examining the offspring of parents with mood disorders have often been limited by small sample sizes and inconsistent results (Cullen et al., 2014; Vandeleur et al., 2012). To my knowledge, only one meta-analysis has investigated the risks of specific

anxiety disorders in the offspring of parents with severe psychiatric conditions, including mood disorders (Ayano et al., 2021). This study found that parental BD increased the risk of generalised anxiety disorder (GAD) in offspring, while parental unipolar depression increased the risk of GAD, social phobia, and separation anxiety disorder (SAD). However, no direct comparison of anxiety disorder risks between BD and unipolar depression was made. Moreover, the meta-analysis faced several limitations, including a small number of studies for each anxiety subtype, the inclusion of extended family members rather than focusing solely on parent–child dyads, and variability in assessment tools for identifying parental mood and offspring anxiety disorders.

It is also crucial to explore factors that might influence the risks of anxiety disorders in offspring of parents with mood disorders. To date, no meta-analyses have investigated what factors moderate risks in this population. Previous studies indicated that parental mood disorders (unipolar depression vs bipolar disorder) (Vandeleur et al., 2012), study design (cohort vs case-control studies) (Ayano et al., 2021), parent control conditions (healthy control vs psychiatric control group) (Axelson et al., 2015), parent and offspring sex (Knappe et al., 2009; Nomura et al., 2001), offspring age, and anxiety disorder measures (lifetime vs current diagnosis) have an impact on certain anxiety disorders in offspring of parents with mood disorders (Goetz et al., 2017; Palacio-Ortiz et al., 2017). Furthermore, parental anxiety disorder has been shown to increase the risk of offspring anxiety disorders (Lawrence et al., 2019). Population studies have shown that different national incomes, research years (Baxter et al., 2013), and participant ethnicity are associated with varying prevalence rates of anxiety disorders (Merikangas et al., 2010). Hence, these factors warrant further investigation to explore their moderating effects on the risk of anxiety disorders in the offspring of parents with mood disorders.

This chapter aims to fill these gaps by conducting a systematic review and meta-analysis with three primary objectives: (i) to quantify the risks of specific anxiety disorders in offspring of parents with mood disorders compared with those of unaffected parents; (ii) to assess whether the risks differ based on the parental mood disorder subtype (bipolar disorder vs unipolar depression); and (iii) to identify and explore moderating factors that influence the variability of anxiety disorder risks in this population.

2.2 Methods

Eligibility criteria

The review protocol was developed in advance and registered with PROSPERO (registration number: CRD42021215058). The research question using the PICOST format is shown in **Supplement 2.1** (Straus et al., 2013). A systematic review was conducted following PRISMA guidelines (Page et al., 2021). Eligible studies met these criteria: (1) original peer-reviewed data; (2) inclusion of offspring of parents with mood disorders (at-risk group) and control offspring (parents without mood disorders); (3) reported anxiety disorder prevalence in offspring; (4) diagnoses made using validated clinician-rated tools (ICD-8 to ICD-10 or DSM-III to DSM-5); (5) exclusion of studies where parental physical or psychiatric conditions (e.g., cancer or schizophrenia) significantly influenced offspring anxiety risks.

Literature search

Systematic searches were conducted in Medline, Embase, PsycINFO, and Web of Science for articles published between 1994 and 22 January 2023. The start date reflects significant diagnostic changes in DSM criteria from 1994 (American Psychiatric Association, 1987, 1994). Keywords included concepts of "parents," "mood disorder," "offspring," and "anxiety disorder" (detailed in **Supplement 2.2)**. Reference lists and citation indexes of included articles were also searched.

Data screening

Title and abstract screening, followed by full-text review, were conducted independently by HM and me. Reasons for exclusion were documented (**Supplement 2.3**), with inter-rater agreement exceeding 99%. Disagreements were resolved through discussions involving CC and KEAS. For articles with insufficient eligibility information, original authors were contacted (**Supplement 2.4**).

Data extraction

I extracted study identifiers, methodology, parent/offspring characteristics, and outcomes into Microsoft Excel (**Supplement 2.5)**. If there were multiple eligible records with data obtained from overlapping samples, for example, papers from the same cohort study, I selected studies with outcomes that could be used independently for the data analyses based on the principle described in **Supplement 2.6**.

For studies examining familial risks of parental unipolar depression, the control group could be offspring of healthy controls (parents with no psychiatric disorders or Axis I mental illnesses) or offspring of parents without mood disorders (who may coexist with non-mood disorders such as anxiety disorders). For studies examining familial risks of parental BD, the control group could be offspring of healthy control parents, parents without mood disorders, or parents without BD (who may coexist with unipolar depression and other non-mood disorders). Offspring of parents without mood disorders and those without BD were grouped as psychiatric controls. Anxiety disorders extracted included any anxiety disorder, SAD, GAD, social phobia, specific phobia, panic disorder, and agoraphobia. OCD and PTSD were excluded as they were reclassified in DSM-5 (American Psychiatric Association, 2013).

Quality assessment

Study quality was evaluated using the Quality Assessment Tool for Observational Cohort and Cross-Sectional Studies (National Heart, Lung, and Blood Institute, 2013). Of the tool's 14 questions, one question, which asks whether the study examined different levels of exposure related to the outcome, was excluded as it was not applicable because the exposure in this study, defined as the presence or absence of parental mood disorders, is binary and does not vary in amount or level. Studies were rated as "good" (low risk of bias), "fair" (some bias), or "poor" (high risk of bias). Poor-quality studies were excluded from the analysis.

Statistical analysis

Meta-analyses were conducted using R packages *meta*, *metasens*, and *metafor* (R version 4.0.5). Random-effects models (Mantel–Haenszel method) were used to calculate pooled risk ratios (RRs) for each anxiety disorder subtype because between-study heterogeneity could be anticipated due to variations in demographics and methodologies across the included studies. Between-study heterogeneity was assessed using the Paule–Mandel method, and I^2 statistics were classified as low (below 25%), low to moderate (25-50%), moderate to high (50-75%), and high heterogeneity (above 75%).

To ensure robustness, I used three approaches: (1) If I^2 was over 50%, a sensitivity analysis was conducted to estimate a corrected RR by removing outliers (identified via visual inspection of forest plots) or influential cases (identified by the leave-one-out analysis, Baujat plot, and influence diagnostics) (Harrer et al., 2022); (2) If Egger's test indicated small-study effects, a proxy for publication bias, a corrected RR using the trim-and-fill approach was calculated; (3) Studies that reported adjusted ratios (risk ratios, odds ratios, and hazard ratios) were pooled separately and together with crude RRs from the remaining studies.

Subgroup analyses and meta-regression were performed on predefined factors based on previous evidence in the offspring of my research focus, including parent psychopathology and

control condition, parent and offspring sex, offspring age, anxiety disorder measures, and study design when there were at least ten studies (Borenstein et al., 2011). I also examined other factors that may affect the anxiety disorder risks in the general population, such as study type, country income level, publication year, and ethnicity. To avoid ecological bias (Greenland & Morgenstern, 1989), offspring age was analysed using age ranges rather than mean ages, and stratified offspring were categorised as children (up to 12 years), adolescents (12 to 18 years) and adults (19 years and above).

A forced-entry meta-regression included four variables (parent control condition, offspring age, offspring sex, and parent sex) into the regression model to find the best fit. These factors were chosen and written into the predefined research protocol because of their clinical relevance and proven moderating roles in the offspring of parents with mood disorders.

Figure 2.1. PRISMA Flow Diagram for the Systematic Review Process

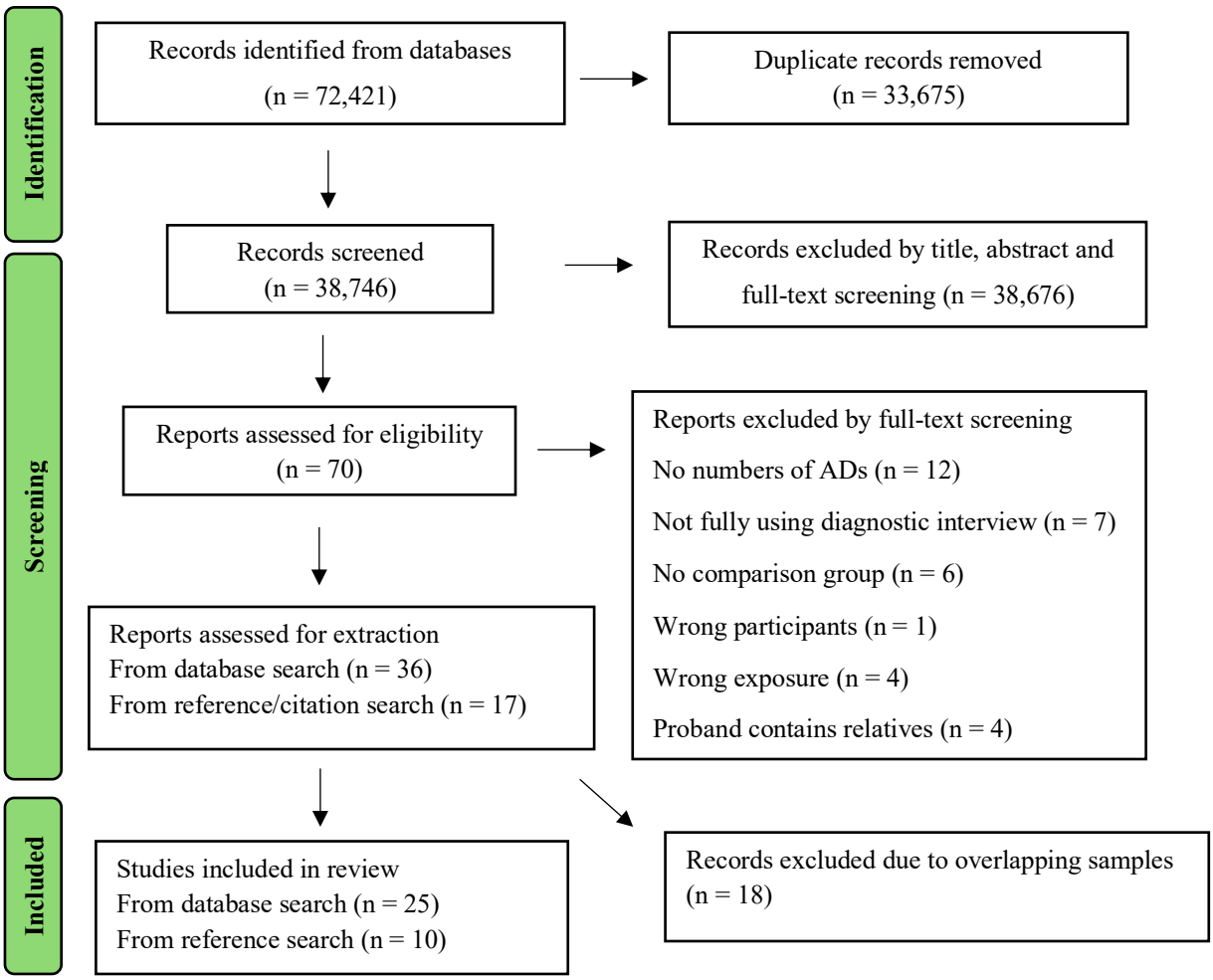

Table 2.1. The Characteristics of Studies Included in the Systematic Review (N = 35)

First author (Year)	Design	Country	White (%)	Setting (Risk)	Setting (Control)	Adult Dx tools	C&A Dx tools	Measure	Proband sex	Exposure	Control	Sample size	Age range	Off sex (% F)
Akdemir (2008)	CRO	Turkey	NA	Clinical	Clinical	SADS-L	K-SADS	Lifetime	Parents	BD	HC	69	6-17	44.9
Axelson (2015)	LON	USA	78.4	Clinical	Community	SCID	K-SADS	Lifetime	Parents	BD	Not BD	639	12-24	50.8
Beidel (1997)	CRO	USA	82.3	Clinical	Community	SCID	K-SADS	Current	Parents	MDD	HC	101	7-12	43.6
Biel (2008)	CRO	USA	74.1	Clinical	Clinical	SCID	PRIS	Lifetime	Parents	MDD	HC	243	6-17	55.1
Birmaher (2010)	CRO	USA	79.8	Clinical	Community	SCID	K-SADS	Lifetime	Parents	BD	Not BD	223	2-5	48.1
Bushnell (2020)	LON	USA	100	Mixed	Community	SADS-L	K-SADS	Lifetime	Parents	MDD	HC	275	18	53.6
Cullen (2014)	LON	USA	88.3	Clinical	Community	SADS-L	N/A	Current	Mothers	BD/MDD	HC	136	19-25	58.1
Duffy (2019)	LON	Canada	NS	Clinical	Community	SADS-L	K-SADS	Lifetime	Parents	BD	HC	366	5-25	59.6
Eraso-Osorio (2021)	LON	Columbia	NS	Clinical	Community	DIGS	K-SADS	Lifetime	Parents	BD	Not BD	192	6-30	46.3
Erkan (2015)	CRO	Turkey	NS	Clinical	Clinical	SCID	K-SADS	Current	Parents	BD	HC	53	12-17	56.6
Erlenmeyer (1997)	LON	USA	100	Clinical	Community	SADS-L	N/A	Lifetime	Parents	MD	HC	203	32-37	48.0

Feder (2009)	CRO	USA	87.9	Clinical	Clinical	SCID	K-SADS	Lifetime	Mothers	MDD	No MD	58	8-17	48.3
Galbally (2020)	LON	Australia	89.6	Clinical	Clinical	SCID	PAPA	Current	Mothers	PND	No MD	203	4	43.6
Galbally (2022)	LON	Australia	NS	Clinical	Clinical	SCID	PAPA	Current	Mothers	PND	No MD	198	4	44.4
Gallerani (2010)	LON	USA	81.7	Community	Community	SCID	K-SADS	Lifetime	Mothers	MDD+DD	HC	240	18	54.1
Garcia-Amador (2013)	CRO	Spain	NS	Clinical	Community	SCID	K-SADS	Current	Parents	BD	HC	75	6-17	40
Goetz (2017)	CRO	Czech	NS	Clinical	Community	SADS-L	K-SADS	Lifetime	Parents	BD	HC	86	6-17	41.9
Hirshfeld-Becker (2006)	CRO	USA	88.4	Mixed	Community	SCID	K-SADS	Lifetime	Parents	BD	HC	129	5-10	44.2
Micco (2009)	LON	USA	NS	Mixed	Community	SCID	K-SADS	Both	Parents	MDD	HC	135	6-17	51.1
Murray (2011)	LON	UK	NS	Community	Community	SCID	K-SADS	Lifetime	Mothers	PND	No MD	93	16	51.6
Nijjar (2014)	LON	Canada	NS	Clinical	Community	SCID	K-SADS	Both	Parents	BD	HC	148	14-24	43.9
Nimarko (2020)	LON	USA	66.1	Community	Community	SCID	K-SADS	Current	Parents	BD/MDD	HC	101	11.7-21.7	54.4
Nomura (2001)	LON	USA	NS	Mixed	Community	SADS-L	K-SADS	Lifetime	Parents	MDD	HC	182	16-33	54.9
Pan (2017)	LON	USA	79.7	Clinical	Community	SCID	K-SADS	Current	Parents	BD	HC	350	13-18	50.3
Palacio-Ortiz (2017)	CRO	Columbia	NS	Clinical	Community	DIGS	K-SADS	Lifetime	Parents	BD	Not BD	277	6-30	46.2

Pavlova (2022)	CRO	Canada	NS	Clinical	Community	SCID	K-SADS	Lifetime	Parents	BD/MDD	HC	366	5-21	50.5
Petresco (2009)	CRO	Brazil	59.4	Clinical	Clinical	SCID	K-SADS	Lifetime	Mothers	BD	HC	96	6-18	56.3
Pine (2005)	CRO	USA	NS	Clinical	Clinical	SCID	PRIS	Current	Parents	MDD	HC	120	9-19	56.7
Rudaz (2020)	LON	Swiss	100	Clinical	Clinical	DIGS	N/A	Lifetime	Parents	BD/MDD	No MD	414	19-31	50.8
Serna (2021)	LON	Spain	97.0	Clinical	Community	SCID	K-SADS	Lifetime	Parents	BD	Not BD	170	8-19	50.6
Singh (2007)	CRO	USA	85.3	Clinical	Community	SCID	K-SADS	Lifetime	Parents	BD	HC	66	8-17	54.6
Shalev (2019)	LON	USA	78.7	Clinical	Community	SCID	K-SADS	Lifetime	Parents	BD	HC	656	7-18	49.8
Tseng (2015)	CRO	USA	81.6	Clinical	Community	SCID	PAPA	Current	Parents	BD	HC	38	3.5-6	60.5
Weissman (2021)	LON	USA	100	Mixed	Community	SADS-L	N/A	Lifetime	Parents	MDD	HC	276	36-53	53.6
Zavaleta-Ramirez (2014)	CRO	Mexico	NS	Clinical	Community	MINI	K-SADS	Lifetime	Parents	BD	Not BD	62	6-18	27.4

Note: **BD** = bipolar Disorder; **BIOS** = Bipolar Offspring Study; **C&A** = children and adolescents; **CRO** = cross-sectional; **DIGS** = Diagnostic Interview for Genetic Studies; **DD** = dysthymic disorder; **Dx tools** = diagnostic assessment tools; **HC =** healthy control; **K-SADS =** Kiddie Schedule for Affective Disorders and Schizophrenia for School-Age Children; **LON** = longitudinal; **MD =** mood disorders; **MDD** = major depressive disorder; **MINI =** The Mini-International Neuropsychiatric Interview; **Mixed** = studies including both clinical and community settings; **N/A** = not applicable; **NS** = not specified; **Off sex** = proportion of female offspring in the sample (%), **SADS-L** = Schedule for Affective Disorder and Schizophrenia- Lifetime version; **SCID** = The Structured Clinical Interview for DSM; **PAPA** = The Preschool Age Psychiatric Assessment; **PND** = post-natal depression; **PRIS =** Parent as Respondent Informant Schedule

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2.3 Results

Study Characteristics

This systematic review included 35 studies, 13 of which were cross-sectional studies, 3 were baseline data from cohort studies, and 19 were cohort follow-up studies. Most study populations were White and from high-income Western countries. The Structured Clinical Interview for DSM (SCID) and the Kiddie Schedule for Affective Disorders and Schizophrenia for School-aged Children (K-SADS) were the most commonly used diagnostic tools for adults and children/adolescents. Twenty-three studies recruited children under 19 years of age, and the remaining studies mainly included offspring aged up to early adulthood. **Table 2.1** describes the methodological and demographic characteristics of the included studies (Akdemir & Gokler, 2008; Axelson et al., 2015; Beidel & Turner, 1997; Biel et al., 2008; Birmaher et al., 2010; Bushnell et al., 2020; Cullen et al., 2014; De la Serna et al., 2021; Duffy et al., 2019; Eraso-Osorio et al., 2021; Erkan et al., 2015; Erlenmeyer-Kimling et al., 1997; Feder et al., 2009; Galbally et al., 2020; Galbally et al., 2022; Gallerani et al., 2010; Garcia-Amador et al., 2013; Goetz et al., 2017; Hirshfeld-Becker et al., 2006; Micco et al., 2009; Murray et al., 2011; Nijjar et al., 2014; Nimarko et al., 2021; Nomura et al., 2001; Palacio-Ortiz et al., 2017; Pan et al., 2017; Pavlova et al., 2022; Petresco et al., 2009; Pine et al., 2005; Rudaz et al., 2021; Shalev et al., 2019; Singh et al., 2007; Tseng et al., 2015; Weissman et al., 2021; Zavaleta-Ramírez, 2014). A PRISMA flowchart for the study review process is provided in **Figure 2.1**.

Quality Assessment

All included studies consistently adopted reliable and valid diagnostic tools for exposures and outcomes and generally met the following quality assessment criteria: clearly defined research questions, study population and eligibility criteria. Most studies measured and adjusted for potential confounding variables and blinded outcome assessors to the offspring's

exposure status, but only about half of them provided a justification for their sample size. The main limitations of the included cross-sectional studies were the lack of data on whether the exposure occurred before the outcome or if the timeframe was sufficient to analyse the association between exposure and outcome. Of the 19 cohort follow-up studies, 12 studies reported multiple assessments of exposure and eight described a loss-to-follow-up rate of 20% or lower. The details of the quality assessment are shown in **Supplement 2.7**.

Lifetime Rates of Offspring Anxiety Disorders

Table 2.2 demonstrates the lifetime prevalence of anxiety disorders in the offspring of parents with mood disorders, with a mean offspring age ranging from 16.4 to 22.3 years. Overall, 36.0% of at-risk and 20.4% of control offspring experienced anxiety disorders during their lifetime. Lifetime rates of anxiety disorders among offspring of parents with mood disorders vs control offspring were 20.4% vs 10.0% for SAD, 14.5% vs 7.16% for GAD, 15.6% vs 9.32% for social phobia, 20.2% vs 12.1% for specific phobia, 5.96% vs 1.58% for panic disorder, and 4.17% vs 4.40% for agoraphobia. The two groups of offspring presented a similar ordering of the rates of different anxiety disorders: specific phobia and SAD were the most common, GAD and social phobia were intermediate, and panic disorder and agoraphobia were the least common anxiety disorders. Two of the included studies reported higher rates of two or more anxiety disorders in offspring of parents with major depression (22.6%) compared to controls (9.4%) and in offspring of parents with BD (26.5%) compared to controls (10.6%). However, in the latter study, the difference lost significance after excluding children who had developed BD (**Supplement 2.8**) (Bushnell et al., 2020; Hirshfeld-Becker et al., 2006).

Furthermore, **Supplement 2.9** shows that offspring (up to 19 years) of parents with BD or unipolar depression consistently had elevated prevalence rates (both lifetime and current) of multiple anxiety subtypes compared to offspring of control parents. For example, offspring (up

to 19 years) of parents with BD had higher lifetime prevalence rates compared to controls: any anxiety disorder (34.5% vs 14.8%), SAD (12.9% vs 5.3%), GAD (7.7% vs 3.6%), social phobia (6.0% vs 3.8%), specific phobia (12.6% vs 6.7%), and panic disorder (5.1% vs 0.4%). A similar pattern was observed in younger children (up to 12 years) of parents with BD, with elevated lifetime prevalence for any anxiety disorder (20.3% vs 4.6%), SAD (13.4% vs 3.4%), GAD (5.6% vs 0.8%), social phobia (3.9% vs 1.7%), specific phobia (7.3% vs 2.1%), and panic disorder (5.2% vs 0%).

Figure 2.2. Forest Plot of the Risk of Any Anxiety Disorder in the Offspring of Parents with Mood Disorders

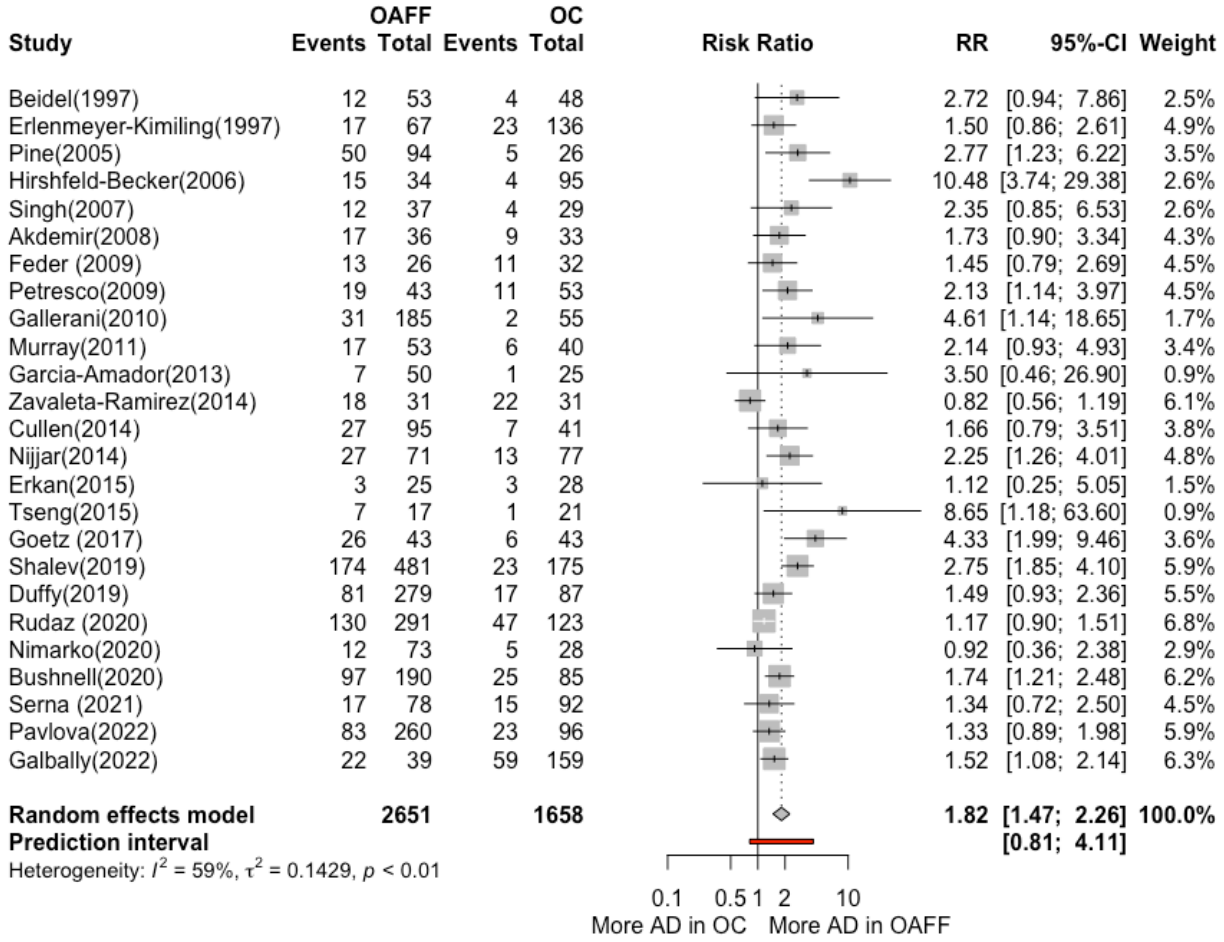


Table 2.2. The Rates and Risks of Anxiety Disorders in the Offspring of Parents with Mood Disorders

Parent Dx		**Mood disorders**							**Bipolar disorder**					**Unipolar depression**				
		Lifetime rates					**I^2**	**Egger**				**I^2**	**Egger**				**I^2**	**Egger**
Off-spring	**Age**	**Risk**	**Cont**	**K (n)**	**RR**	**95%CI**	**(%)**	**(p)**	**K (n)**	**RR**	**95% CI**	**(%)**	**(p)**	**K (n)**	**RR**	**95% CI**	**(%)**	**(p)**
Any AD	17.6	36.0%	20.4%	25 (4,309)	**1.82**[a]	1.47-2.26	**59.1**[b]	**0.005**[c]	17 (2,474)	**1.92**[a]	1.40-2.64	**67.2**	0.06	11 (1,642)	**1.54**[a]	1.27-1.87	1.3	0.26
Any AD (Inf)[b1]				23 (4,118)	**1.75**[a]	1.49-2.05	33.9		15 (2,283)	**1.85**[a]	1.49-2.33	36.2						
Any AD (TF)				27	**1.71**[a]	1.43-2.05	29.9											
SAD	18.5	20.4%	10.0%	14 (2,736)	**1.75**[a]	1.37-2.24	5.7	0.10	9 (1,965)	**1.85**[a]	1.12-3.07	32.0		7 (901)	**2.06**[a]	1.11-3.83	28.0	
GAD	19.6	14.5%	7.16%	17 (3,333)	**1.76**[a]	1.19-2.60	42.1	0.58	11 (2,156)	1.81	0.93-3.54	**52.9**	0.90	8 (1,104)	1.82	0.87-3.81	33.9	
GAD (Inf)[b2]									10 (2,094)	**2.05**[a]	1.12-3.75	43.8						

SOC	18.4	15.6%	9.32%	17 (3,259)	**1.51**[a]	1.12-2.05	18.1	0.32	11 (2,156)	1.70	0.93-3.09	40.9	0.40	8 (1,175)	1.34	0.95-1.88	0
SP	16.4	20.2%	12.1%	17 (2,979)	**1.44**[a]	1.11-1.87	24.1	**0.00**[c]	10 (1,697)	1.65	0.89-3.05	46.7	**0.01**[c]	8 (1,283)	**1.41**[a]	1.17-1.71	0
SP (TF)				23	1.28	0.88-1.86	37.7		12	1.10	0.59-2.05	41.1					
PD	22.3	5.96%	1.58%	13 (2,913)	**3.07**[a]	2.19-4.32	0	0.35	10 (2,094)	**3.27**[a]	2.06-5.19	0	0.19	3 (559)	**3.39**[a]	2.18-5.25	0
AGO	22.7	4.17%	4.40%	5 (1,268)	1.08	0.56-2.08	0		3 (783)	1.02	0.17-6.09	0		3 (486)	5	0.39-3.39	0

Note: **AD** = anxiety disorder; **AGO** = agoraphobia**; Cont** = control; **Dx** = diagnosis; **Egger** = Egger test (assessing publication bias); **GAD** = generalised anxiety disorder**; Inf =** correction by removing outliers and influential cases**; K** = number of studies**; n** = number of participants**; PD** = panic disorder**; SAD** = separation anxiety disorder; **RR** = risk ratio; **SOC** = social phobia; **SP** = specific phobia; **TF** = correction by Trim-and-fill method for publication bias; **95%CI** = 95% confidence interval; [a] significant effect size: overall p-value < .05; [b] significant between-study heterogeneity: I^2>50 → Outlier/influential-cases correction (**Inf**); [b1] removed as outliers: Hirshfeld-Becker et al. (2006), Zavaleta-Ramirez et al. (2014); [b2] removed as an influential case: Zavaleta-Ramirez et al. (2014); [c] significant small-study effects: p-value in Egger test < .05 suggests publication bias (number of studies should be at least 10) → Trim-and-fill method correction (**TF**)

Risk Ratios of Offspring Anxiety Disorders: Effects of Parental Mood Disorders

Table 2.2 also shows pooled RRs of different anxiety disorders among offspring of parents with mood disorders compared to control offspring. The meta-analysis yielded an RR of 1.82 (95% CI: 1.47–2.26) for any anxiety disorder, with moderate-to-high between-study heterogeneity (I^2 = 59.1%). The prediction interval ranged from 0.81 to 4.11, indicating that a non-significant RR cannot be ruled out for future studies. **Figure 2.2** provides the forest plot for this meta-analysis. According to the analysis of the pooled effect size, the likelihood of a child having an anxiety disorder is approximately twice as high when their parents have mood disorders compared with children whose parents do not. This suggests that around one in eight children in this context may have an anxiety disorder, compared to the estimated prevalence of one in fifteen children in the general population (Polanczyk et al., 2015).

The RRs for SAD, GAD, social phobia, specific phobia, panic disorder, and agoraphobia were 1.75 (95% CI: 1.37–2.24, I^2 = 5.7%), 1.76 (95% CI: 1.19–2.60, I^2 = 42.1%), 1.51 (95% CI: 1.12–2.05, I^2 = 18.1%), 1.44 (95% CI: 1.11–1.87, I^2 = 24.1%), 3.07 (95% CI: 2.19–4.32, I^2 = 0%) and 1.08 (95% CI: 0.56–2.08, I^2 = 0%), respectively. All pooled RRs indicated a higher risk of different anxiety disorders in at-risk offspring than in control offspring, except for agoraphobia. Notably, at-risk offspring exhibited a higher RR for panic disorder than for the other anxiety disorders.

Risk Ratios of Offspring Anxiety Disorders by Parental Diagnosis

Offspring of parents with mood disorders were divided into two subgroups: offspring of parents with BD and offspring of parents with unipolar depression. The meta-analysis showed that parental BD increased the risk among offspring for any anxiety disorder (RR = 1.92, 95% CI: 1.40–2.64, I^2 = 67.2%), SAD (RR = 1.85, 95% CI: 1.12–3.07, I^2 = 32%), and panic disorder (RR = 3.27, 95% CI: 2.06–5.19, I^2 = 0%), while no significant risks were

observed for GAD (RR = 1.81, 95% CI: 0.93–3.54, I^2 = 52.9%), social phobia (RR = 1.70, 95% CI: 0.93–3.09, I^2 = 40.9%), specific phobia (RR = 1.65, 95% CI: 0.89–3.05, I^2 = 46.7%), and agoraphobia (RR = 1.02, 95% CI: 0.17–6.09, I^2 = 0%) compared with offspring of parents without BD. In contrast, parental unipolar depression elevated the offspring's risk for any anxiety disorder (RR = 1.54, 95% CI: 1.27–1.87, I^2 = 1.3%), SAD (RR = 2.06, 95% CI: 1.11–3.83, I^2 = 28.0%), specific phobia (RR = 1.41, 95% CI: 1.17–1.71, I^2 = 0%), and panic disorder (RR = 3.39, 95% CI: 2.18–5.25, I^2 = 0%), but no significant risks for GAD (RR = 1.82, 95% CI: 0.87–3.81, I^2 = 33.9%), social phobia (RR = 1.34, 95% CI: 0.95–1.88, I^2 = 0%), or agoraphobia (RR = 1.15, 95% CI: 0.39–3.39, I^2 = 0%).

Confirming the Strength of Risk Ratios for Offspring Anxiety Disorders

The moderate-to-high heterogeneity observed in the RR for any anxiety disorder among offspring of parents with mood disorders indicated the need for further sensitivity analyses by removing outliers and influential cases (**Supplement 2.10**). The sensitivity analyses did not alter the increased risk for any anxiety disorder among offspring in the context of parental mood disorders or parental BD (RR = 1.85, 95% CI: 1.49–2.33, I^2 = 36.2%). In contrast, the impact of parental BD on offspring GAD emerged after sensitivity analysis (RR = 2.05, 95% CI: 1.12–3.75, I^2 = 43.8%). Possible explanations for the outliers and influential cases (**Supplement 2.11**) suggested that some variables, such as the conditions of control parents and offspring age and sex, might play essential roles in accounting for the between-study heterogeneity.

Funnel plot asymmetry and significant Egger's test results were observed in the RR estimates for any anxiety disorder and specific phobia in the offspring of parents with mood disorders, indicating the influence of publication bias (**Supplement 2.12**). The trim-and-fill corrected RR for any anxiety disorder decreased but remained significant (RR = 1.71, 95% CI:

1.43–2.05, I^2 = 29.9%), whereas the corrected RR for specific phobia became non-significant (RR = 1.28, 95% CI: 0.88–1.86, I^2 = 37.7%).

Although adjusted ratios can account for confounding factors, I used the raw numbers to calculate effect sizes due to the limited number of studies reporting adjusted ratios, and to make my calculation more transparent and easier to replicate. However, I also conducted sensitivity analyses using the six studies reporting adjusted ratios for any anxiety disorder among offspring of parents with mood disorders. Combining adjusted RRs with odds ratios, adjusted hazard ratios, or adjusted and crude RRs did not affect the significance of my main results (**Supplement 2.13–14**).

I also performed sensitivity analyses by excluding cross-sectional studies and baseline data from cohort studies, which did not change the increased risks observed in offspring of parents with mood disorders in the main analysis (**Supplement 2.15**). Additionally, these analyses indicated the potential impacts of parental BD on GAD and social phobia among offspring. Notably, the pooled RR for panic disorder slightly decreased but remained the highest among the anxiety disorders (RR = 2.80, 95% CI: 2.00—3.91, I^2 = 0). The subgroup analysis shown in **Table 2.3** showed no differences in RR between cross-sectional and follow-up data for all subtypes of anxiety disorders, except for panic disorder (RR = 9.14 vs 2.80, $p < 0.001$). Further examination of panic disorder showed that the three cross-sectional studies had significantly younger offspring than the ten studies with follow-up data (mean age = 10.3 vs 22.9 years, p = .014). After controlling for the interaction between study design and offspring age, the risk difference for panic disorder was no longer significant.

Furthermore, diagnostic measures (lifetime vs current anxiety disorder diagnoses) and qualitative ratings (“good” vs “fair”) yielded no differences in offspring anxiety disorders between at-risk and control offspring (**Table 2.3** and **Supplement 2.16**). A summary of the

main analysis and robustness tests regarding the association between parental mood disorders and offspring anxiety disorders can be found in **Supplement 2.17**.

Examining Factors Affecting Risk Ratios for Anxiety Disorders in Offspring

Table 2.3, Supplement 2.16, and Supplement 2.18 present subgroup analysis and univariate meta-regression (agoraphobia omitted due to insufficient studies). No clear differences in offspring anxiety disorders were found between parental BD and unipolar depression across the full sample. However, when comparing preadolescent high-risk children (≤12 years) to strictly healthy controls (see **Table 2.4** footnote), a striking pattern emerges: offspring of parents with BD exhibit anxiety prevalences of 41.2 % at mean age 4.5 years (range 3.5–6 years; Tseng et al., 2015) and 44.1 % at 7.1 years (range 5–10 years; Hirshfeld-Becker et al., 2006), compared with only 4.8 % and 4.2 % in healthy controls—yielding a pooled RR ≈ 9.1**.** In contrast, a study on offspring of parents with unipolar depression (Beidel & Turner, 1997; age 7–12 years, mean 9.4 years) shows 22.6 % vs 8.3 % in healthy controls (RR ≈ 2.7). Although the number of studies is small and sample sizes modest, current findings consistently suggest that pre-adolescent offspring of parents with BD have a higher prevalence of anxiety disorders than those of unipolar depression. In BD studies, anxiety prevalence increases steeply—from 10.7 % at mean age 3.8 years (range 2–5 years; Birmaher et al., 2010) to above 40 % by school age—while control-group rates remain steady at ~4–5 %. This suggests a possible "vulnerability window" in primary school age for BD offspring. However, caution is warranted**,** as these estimates are based on small cohorts with limited sample sizes.

Table 2.3. Summary of Subgroup Analysis and Univariate Meta-Regression

		Any AD			SAD		GAD		SOC		SP		PD	
Variable	**Subgroup**	**K**	**RR**	**I^2**	**K**	**RR**	**K**	**RR**	**K**	**RR**	**K**	**RR**	**K**	**RR**
Proband parent	Unipolar depression	7	1.74	12.5%	3	2.08	5	1.25	4	2.26	4	1.70	0	
psychopathology	Bipolar disorder	14	2.30	41.1%	4	2.63	5	1.64	5	2.21	6	2.89	6	4.29
	p	.202			.580		.646		.949		.198			
Control parent	Healthy control	**19**	**2.12**	43.5%	7	1.86	10	1.55	**9**	**2.22**	**9**	**1.87**	7	2.99
psychopathology	Psychiatric control	**6**	**1.24**	39.0%	7	1.72	7	1.99	**8**	**1.22**	**8**	**1.17**	6	3.10
	p	**.001[a]**			.771		.519		**.027[a]**		**.035[a]**		.929	
Parent sex[b]	Parents	19	1.86	67.29%	**11**	**1.70**	14	1.62	**13**	**1.61**	13	1.44	11	3.84
	Mothers	6	1.70	0%	**3**	**4.45**	3	3.13	**4**	**0.91**	4	1.53	2	3.84
	p	.597			**.040[a]**		.128		**.004[a]**		.764		.657	
Offspring age	Children	4	2.93	79.7%			4	4.00	4	1.41	5	1.81	**2**	**8.39**
range	Adolescents and adults	10	1.69	28.5%			9	1.99	8	1.37	6	1.08	**8**	**2.80**
	p	.252					.202		.960		.271		**.042[a]**	

AD measure	Lifetime Dx	16	1.87	70.5%	11	1.81	12	1.85	12	1.53	13	1.51	11	2.99	
	Current Dx	8	1.73	6.4%	3	1.48	5	1.45	5	1.57	4	1.35	2	4.87	
	p		.703			.543		.617		.921		.615		.591	
Study design	Cross-sectional data	13	2.16	69.9%	6	1.98	6	1.43	6	1.28	9	1.80	**3**	**9.14**	
	Follow-up data	12	1.64	41.5%	8	1.72	11	1.84	11	1.45	8	1.28	**10**	**2.80**	
	p		.204			.645		.697		.804		.255		**.000[a]**	

Variable		**K**	**β (SE)**	**K**	**β (SE)**	**K**	**β (SE)**	**K**	**β (SE)**	**K**	**β (SE)**	**K**	**β (SE)**
Offspring sex	Female (%)	25	0.008 (0.014)	14	0.019 (0.024)	17	-0.009 (0.031)	17	0.013 (0.025)	**17**	**0.039 (0.016)**	13	-0.041 (0.033)
	p		.568		.442		.777		.606		**.031[a]**		.242

Note: **AD** = anxiety disorder; **β** = estimate**; C&A** = children and adolescents; **Dx** = the diagnosis of anxiety disorders in offspring; **GAD** = generalised anxiety disorder**; K** = number of studies; **PD** = panic disorder**; RR** = risk ratio; **SAD** = separation anxiety disorder; **SE** = standard error**; SOC** = social phobia; **SP** = specific phobia; [a] $p < 0.05$**;** [b] comparing studies that recruited offspring of parents with mood disorders to studies that only recruited offspring of mothers with mood disorders

Table 2.4. Sensitivity Analyses of Anxiety Disorder Prevalence and Risk in Offspring of Parents with BD vs Unipolar Depression

Offspring of parents with BD (OBD)	K (n)	Prevalence of AD in OBD	Prevalence of AD in Control Group	RR	95% CI	I^2 (%)	Egger (p)
Up to 12 years	3 (390) [a]	20.3%	4.6%	5.32	0.56-50.88	**59.1** [c1]	
Up to 19 years	12 (1,543)	35.5%	15.9%	2.20	1.37-3.54	**74.1** [c2]	.19
All age range	17 (2,474)	35.4%	18.3%	1.92	1.40-2.64	**67.2** [c3]	**.06**
Offspring of parents with unipolar depression (OUD)	**K (n)**	**Prevalence of AD in OUD**	**Prevalence of AD in Control Group**	**RR**	**95% CI**	**I^2 (%)**	**Egger (p)**
Up to 12 years	2 (299) [b]	37.0%	30.4%	1.62	0.16-16.26	3.9	
Up to 19 years	8 (1,143)	36.3%	24.9%	1.73	1.36-2.18	0	
All age range	11 (1,642)	35.2%	25.9%	1.54	1.27-1.87	1.3	.26

[a] studies on offspring of parents with BD The analysis incorporates three studies: (1) Birmaher et al. (2010): Age range 2-5 years (mean = 3.80 years); Prevalence of any AD: 10.7% in offspring of parents with BD vs 4.9% in offspring of parents without BD; (2) Tseng et al. (2015): Age range 3.5-6 years (mean = 4.53 years); Prevalence of any AD: 41.2% in offspring of parents with BD vs 4.8% in healthy control; (3) Hirshfeld-Becker et al. (2006): Age range 5-10 (mean = 7.10 years); Prevalence of any AD: 44.1% in offspring of parents with BD vs 4.2% in healthy control

[b] studies on offspring of parents with unipolar depression The analysis incorporates two studies: (1) Galbally et al. (2022): Aged 4 years (mean = 4.17 years, N = 198); Prevalence of any AD: 56.4% in offspring of parents with unipolar depression vs 37.1% in offspring of parents without MDD and psychosis; (2) Beidel et al. (1997): Age rage 7-12 years (mean = 9.44 years, N = 101); Prevalence of any AD: 22.6% in offspring of parents with unipolar depression vs 8.3% in healthy control

[c1] Removed as influential case: Birmaher et al (2010)- K(n)=2 (167), RR= 10.06, 95% CI= 3.72-27.22, I^2= 0

[c2] Removed as outliers: Hirshfled-Becker et al (2006), Zavaleta-Ramirez et al (2014)- K(n)= 10 (1,352), RR= 2.22, 95% CI= 1.62-3.06, I^2=16.0

[c3] Removed as outliers: Hirshfled-Becker et al (2006), Zavaleta-Ramirez et al (2014)- K(n)= 23 (4,118), RR= 1.75, 95% CI= 1.49-2.05, I^2=33.9

Second, separating subgroups based on healthy and psychiatric control parents yielded decreased I^2 values for any anxiety disorder, from 59.1% to 43.5% and 39.0%, respectively, suggesting that this variable could explain part of the heterogeneity. **Supplement 2.19** showed that control parents 'without mood disorders' typically had anxiety disorders (only), except for one study (Murray et al., 2011). This allowed me to estimate the effect of parental anxiety disorder by comparing the RR of anxiety disorders in offspring of parents with mood disorders with those of parents without mood disorders. The results showed that at-risk offspring had higher risks for any anxiety disorder, social phobia, and specific phobia when compared to healthy controls than when compared to offspring of parents without mood disorders. This finding indicates that the presence of anxiety disorders without mood disorders among parents is associated with a lower RR for offspring anxiety disorders compared to that when parents have a mood disorder. Four studies included in my analysis showed that the presence of both major depression and anxiety disorders in parents appeared to increase anxiety symptoms but not rates of anxiety disorder diagnosis among offspring when compared with parental major depression only or parental anxiety disorder only (**Supplement 2.20**) (Beidel & Turner, 1997; Biel et al., 2008; Micco et al., 2009; Pine et al., 2005). These findings were supported by my meta-regression, which indicated that comorbid anxiety disorders in parents with mood disorders did not significantly increase their offspring's risk of anxiety disorder.

Third, my subgroup analysis showed that children had a trend towards higher risks for all types of anxiety disorders compared to adolescents/adults, and the risk difference achieved significance for panic disorder (RR = 8.39 vs 2.80, p = .042). I further analysed the risk of anxiety disorders in different age groups of offspring using a random-effects meta-analysis presented in **Supplement 2.21**. The results revealed that children up to 12 years old exposed to parental mood disorders had an elevated risk for any anxiety disorder (RR = 3.20, 95% CI: 1.11–9.29, $I^2 = 73.0$) and GAD (RR = 3.87, 95% CI: 1.71–8.78, $I^2 = 0$). When the age range was extended to include adolescence, the risk differences achieved significance for any anxiety disorder (RR = 2.04, 95% CI: 1.52–2.73, $I^2 = 63.2$), SAD (RR = 1.57, 95% CI: 1.12–2.20, $I^2 = 0$), and panic disorder (RR = 4.36, 95% CI: 2.16–8.77, $I^2 = 0$). However, in studies that recruited only adults, parental mood disorder increased risks in offspring for GAD (RR = 2.28, 95% CI: 1.52–3.43, $I^2 = 0$), social phobia (RR = 1.19, 95% CI: 1.12–1.27, $I^2 = 0$) and panic disorder (RR = 2.68, 95% CI: 1.37–5.24, $I^2 = 0$). In offspring of parents with BD (**Supplement 2.22**), the risks for any anxiety disorder (RR = 2.20, 95% CI: 1.37–3.54, $I^2 = 74.1$) and panic disorder (RR = 4.93, 95% CI: 2.31–10.51, $I^2 = 0$) were significantly elevated in children and adolescents, while the risk for social phobia was significantly increased only in adulthood (RR = 1.18, 95% CI: 1.13–1.23, $I^2 = 0$).

Fourth, regarding parent sex, my subgroup analysis showed that the offspring of affected mothers presented a higher RR for SAD (RR = 4.45 vs 1.74, p = .049) but a lower RR

for social phobia (RR = 0.91 vs 1.57, p = .003) compared to the offspring of affected parents (either fathers or mothers). Moreover, one study included in my analysis (in **Supplement 2.23**) also indicated that mood disorders in fathers and mothers contributed differently to offspring anxiety disorders, with higher odds ratios noted in the offspring of affected fathers compared to mothers. Univariate meta-regression showed a positive correlation between offspring sex (proportion of female offspring) and the RR for specific phobia (β = 0.039, p = .03), shown in **Supplement 2.24,** indicating that parental mood disorders particularly increased the RR for specific phobia more in female offspring than in male offspring.

Supplement 2.25 illustrates the results of multivariate meta-regression using the forced entry method. The parent control condition, parent and offspring sex, and offspring age were entered into the regression model for any anxiety disorder. There was a significant relationship between parent control conditions and the RR for any anxiety disorder (β = -0.569, se = 0.26, p = .046). The overall model accounted for 55.87% (R^2) of the heterogeneity. Other results and discussions of moderation analyses are presented in **Supplement 2.26.**

2.4 Discussion

Key findings

This meta-analysis comprehensively examines the relationship between parental mood disorders and offspring anxiety disorders, providing insight into a current knowledge gap. In

general, my meta-analysis indicated higher risks of all types of anxiety disorders among offspring of parents with mood disorders, except for agoraphobia. Furthermore, both parental BD and unipolar depression were associated with a higher risk for any anxiety disorder, SAD, and panic disorder among offspring compared to offspring of parents without mood disorders. In comparison, only parental unipolar depression contributed to a higher risk of specific phobia. However, the risk for specific phobia in the context of parental mood disorders was not robust after correcting for publication bias, and the risks for SAD and specific phobia in the context of parental unipolar depression lost significance after conducting a sensitivity analysis excluding cross-sectional data. Moderation analysis indicated no difference in risks for anxiety disorders between offspring of parents with BD and those with unipolar depression; however, age-stratified analyses revealed a higher risk in offspring of parents with BD during the preadolescent period, with a trend of increasing prevalence as children entered the school-age years, while the risk in offspring of parents with unipolar depression remained more consistent across age groups. Moreover, anxiety disorders in control parents, parent/child sex, country income level, and publication year significantly impacted the risks for some types of anxiety disorders.

This chapter provides a more precise estimate of the overall effect of parental mood disorders on offspring anxiety disorders, with smaller effect sizes, narrower confidence intervals, and less between-study heterogeneity compared to the study conducted by Ayano et

al. (2021). I included more studies that provided data for different anxiety disorder subtypes and used more realistic pooling methods with multiple corrections. Furthermore, I adopted stricter inclusion criteria to ensure that all studies were directly relevant to the research questions and focused on the specific population of interest. Although most eligible studies had small sample sizes, this reflected the common trade-off between robust and in-depth measurement (i.e. diagnostic interviews) and large sample sizes. Additionally, I built on previous work by reporting the pooled risks for specific phobia and agoraphobia and examining factors that moderate risks.

The high risk of panic disorder

A striking finding from this meta-analysis is the consistently elevated risk of panic disorder in the offspring of parents with BD and unipolar depression, even when limited to longitudinal data. This aligns with one family study showing panic disorder aggregated in families where parents had BD and in families where parents had major depression. In contrast, specific phobia aggregated only in families where parents had major depression, and social phobia did not show family aggregation (Goes et al., 2012). A separate meta-analysis investigating comorbid anxiety disorders in people with BD also concluded that panic disorder had the highest relative risk among anxiety subtypes compared to the control group (Pavlova et al., 2015). This distinctive transgenerational transmission of panic disorder underscores the potential influence of parental mood disorders on specific offspring anxiety outcomes, raising

the question of whether this risk differs between BD and unipolar depression, given their distinct clinical profiles.

Impacts of parental bipolar disorder vs major depression

Building on the elevated risk of panic disorder, this meta-analysis further explores whether the intergenerational transmission of anxiety disorders, including panic disorder, differs between offspring of parents with BD vs unipolar depression. Subgroup analyses showed no significant difference in anxiety disorder risks between the two, suggesting that both conditions equally elevate risk compared to controls without mood disorders. This aligns with previous literature showing elevated anxiety symptoms and disorders among the offspring of parents with BD and major depression, but not among offspring of parents with schizophrenia (Rasic et al., 2014; Sandstrom et al., 2020). Notably, this observational consistency contrasts with genome-wide analysis indicating a stronger genetic correlation between schizophrenia and BD than between BD and major depression (Lee et al., 2021) and a higher genetic overlap between anxiety disorders and major depression compared to anxiety disorders and BD (The Brainstorm Consortium et al., 2018), hinting at shared environmental pathways or gene-environment interactions in the intergenerational transmission of anxiety disorders across mood disorders (Ahmadzadeh et al., 2021; Eley et al., 2015). This finding, revealing environmental contributions, sets the stage for Chapter 3, where I qualitatively

explore parenting experiences in BD families across offspring ages 0–18 years to identify specific environmental factors that may drive anxiety risk in these offspring.

Factors that influence the association between parental mood disorders and offspring anxiety disorders

The subgroup analysis showed that anxiety disorders among control group parents were associated with higher risks for overall anxiety disorder, social phobia, and specific phobia in their offspring, which is aligned with a meta-analysis by Lawrence et al. (2019) indicating that parental anxiety disorders are associated with offspring anxiety disorders. Notably, the RRs for overall anxiety disorder were similar in the context of parental anxiety disorders (RR = 1.76, 95% CI: 1.58–1.96) and parental mood disorder (RR = 1.82, 95% CI: 1.47–2.26). Next, I found that anxiety disorders in parents with mood disorders did not raise the risk in their offspring beyond the effects of parental mood disorders. The effect of mixed parental mood and anxiety disorder on offspring should be interpreted with caution because it was based on only four studies, with small samples focusing on parental major depression. Further research is needed to examine whether parental bipolar and anxiety disorders have additive or synergistic effects on offspring anxiety disorders.

The current chapter also indicated sex-specific transmission from parental mood disorders to certain offspring anxiety disorders. For example, female offspring had a higher

risk of specific phobia than male offspring; offspring of affected fathers had a higher risk for social phobia, while offspring of affected mothers had a higher risk for SAD. The findings regarding parental sex were possibly related to previous studies showing that paternal behaviour was relevant to social phobia in offspring and maternal affective disorder was significantly associated with SAD (Knappe et al., 2012; Sackl-Pammer et al., 2015). However, my findings are based on a comparison between subgroup of mothers vs parents (fathers or mothers) and on the percentage of female offspring, so caution is warranted without individual data. Future studies should examine transmission from parents to same-sex/opposite-sex offspring. Given that parent–child research and family-based mental health services typically focus on mothers rather than fathers, my research underscores the potential importance of assessing and supporting fathers with mood disorders and their children.

Subgroup analyses with offspring of different ages suggest a general trend for the emergence of anxiety disorders in offspring of parents with mood disorders: risk may be highest in early childhood, potentially decreasing with age towards levels closer to those of control offspring. This could reflect an early influence of parental mood disorders. Further examination indicated that having a parent with BD appear to specifically contribute to this age effect, demonstrating heightened vulnerability to anxiety disorders during the primary school period. Together with evidence that childhood anxiety disorders predict later major mood disorders (Buckley et al., 2023), this underscores the importance of initiating interventions for

pre-adolescent anxiety in these offspring—a focus that current research may be overlooking (Saraf et al., 2021). Furthermore, children and adolescents (aged up to 19 years) of parents with mood disorders (both BD and unipolar depression) consistently show elevated prevalence rates across all anxiety subtypes, except agoraphobia, compared to control offspring, highlighting the need for a transdiagnostic approach to interventions targeting anxiety disorders in this high-risk group.

Limitations

The findings of this chapter must be interpreted in light of several limitations. First, most of the included research focused on White populations in high-income Western countries, so caution is warranted when extending these findings to more diverse populations. Second, as the direction of causality cannot be established from cross-sectional studies, these results should be interpreted as indicating a correlation rather than a causal relationship. Moreover, retrospective recall of symptoms in cross-sectional studies may compromise reliability over time. Nevertheless, sensitivity analyses removing cross-sectional data indicated that the main results were robustness. Third, due to the lack of individual-level data on potential risk factors (e.g., offspring age), the regression model can only explain part of the variability in the effect sizes. Fourth, as most studies measured 'lifetime' anxiety disorders before adulthood, these findings may underestimate adult-onset anxiety disorders. The RRs for anxiety disorders in offspring can only approximate the relationship between parental mood disorders and offspring

anxiety disorders in late adolescence and early adulthood. Thus, future studies are needed to investigate the trajectories of different anxiety disorders across the lifespan of offspring of parents with mood disorders. Finally, caution is warranted in interpreting the results from five studies using parent-reported diagnostic interviews for offspring anxiety due to the possible parent–child disagreement in reporting anxiety symptoms and the impact of parental mood disorders on such discrepancies (details provided in **Supplement 2.27**; Popp et al., 2017).

2.5 Conclusion

This meta-analysis suggests that the offspring of parents with mood disorders are vulnerable to developing anxiety disorders, especially panic disorder, starting from childhood. Furthermore, the risks of specific anxiety disorders are affected by the presence of anxiety disorders in control parents, as well as the offspring age and the sex of the affected parent and the offspring. Given the focus of this doctoral thesis on BD, this chapter highlights the comparable anxiety risk in offspring of parents with BD and unipolar depression, pointing to shared environmental pathways as a key mechanism in this transmission, alongside a distinct vulnerability during the preadolescent period for BD families. These findings highlight the likely value of proactive prevention, early identification, and treatment strategies, particularly during the preadolescent years, to reduce the risk of anxiety disorders in children of parents with BD. An understanding of the mechanisms underlying the increased rates of anxiety disorders in these high-risk offspring may help identify important targets for intervention. To

address these complexities and develop targeted interventions, the next chapter narrows its focus to explore—qualitatively—how BD uniquely impacts family life and parent–child relationships across offspring ages 0–18 years. By doing so, Chapter 3 aims to illuminate key environmental factors for more effective intervention and support in high-risk BD families, setting the stage for the focused qualitative research in Chapter 4–6 on anxious preadolescent offspring.

Chapter 3: Parenting Experiences in the context of Parental Bipolar Disorder: A Systematic Review and Meta-synthesis of the Qualitative Literature (Paper 2)

3.1 Introduction

Chapter 2 established that parental bipolar disorder (BD) is a significant contributor to offspring psychopathology within the broader mood disorder spectrum. It also suggested the potential for intergenerational risk transmission via environmental factors. Given these findings, a targeted qualitative exploration of BD-specific family experiences is essential for unpacking these mechanisms. This chapter bridges the quantitative risk identification of Chapter 2 with the lived experiences of BD-affected families, synthesising existing qualitative literature to uncover how BD shapes parenting practices and parent–child interactions. By doing so, it lays a contextual foundation for understanding offspring vulnerabilities and highlights gaps that subsequent qualitative interview studies (Chapters 4–6) will address, ultimately informing tailored interventions for high-risk families.

BD typically emerges in late adolescence or early adulthood, often coinciding with major life milestones such as forming a family and raising children (Bolton et al., 2021; Grande et al., 2016). Recent quantitative research has documented significant challenges in families with a parent with BD, most notably reduced cohesion and heightened conflict (Shalev et al., 2019; Stapp et al., 2020). Broader longitudinal family studies have linked these adverse

dynamics to an increased risk of child mental health problems. For instance, Cummings et al. (2015) found that elevated family conflict was associated with greater emotional insecurity and subsequent maladjustment, whereas Goodrum et al. (2020) demonstrated that strong family cohesion can mitigate these negative outcomes. However, these studies offer only a broad snapshot of the family's final state, leaving unclear how the distinctive features of BD—such as its episodic and unpredictable mood swings—specifically influence family relationships and parenting practices**.** Therefore, a qualitative exploration is essential to uncover these underlying mechanisms and to inform the development of tailored support strategies that address the concrete challenges faced by these families.

One limitation of existing studies (Anke et al., 2019; Liu et al., 2022; Mulvey et al., 2022; Reupert et al., 2012) is their focus on subgroups within the bipolar community, such as hospitalised parents or those with peripartum onset (Anke et al., 2019; Liu et al., 2022; Mulvey et al., 2022; Reupert et al., 2012). Furthermore, existing qualitative meta-syntheses have grouped parents with BD alongside those with other mental health conditions, such as psychosis and major depression (Dolman et al., 2013; Harries et al., 2023). These studies identify challenges common to parents with severe mental illness, such as balancing self-care with childcare, stigma, guilt, and concerns about the illness's impact on children. However, they do not establish whether families affected by BD face distinct challenges or if these

common challenges manifest in distinct ways specific to BD. Such generalisations could lead to misaligned intervention strategies.

To address this gap, this chapter presents a qualitative meta-synthesis that focuses on the parenting experiences of parents with BD. Building on previous research highlighting the bidirectional nature of parent–child dynamics in families affected by parental mental illness (Harries et al., 2023), this study delves deeper, examining parent–child relationships and interactions within the unique context of BD. Unlike earlier qualitative syntheses that broadly examined parenting with serious mental illness (SMI) (Harries et al., 2023) or living with a parent with SMI (Anna Källquist & Salzmann-Erikson, 2019), my approach is more focused. Furthermore, recognising the potential for bias in parent-reported data (Maoz et al., 2014), I incorporate perspectives from children, partners, and other relevant informants to provide a holistic understanding of the familial impact of parental BD. The aim is to highlight the specific parenting experiences of parents with BD to provide a deeper understanding of the context for interventions targeting high-risk offspring.

3.2 Methods

This chapter adheres to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Page et al., 2021). The study protocol was registered with PROSPERO (registration number CRD42022322046) before commencing the review.

Eligibility Criteria

I established specific criteria to select relevant studies:

1. Publication Type and Time Frame: The selection was limited to English-language, peer-reviewed articles published from 1994 onwards, aligning with the introduction of the DSM-IV to ensure consistency in diagnostic criteria.

2. Methodological Approach: Studies primarily following qualitative research designs or including qualitative components in mixed-methods frameworks were included. Quantitative papers, reviews, and theoretical articles were excluded.

3. Study Demographics: The focus was on families with at least one parent diagnosed with BD, particularly examining parent-offspring dynamics (children under 19 years old) to understand unique parenting challenges in this group.

4. Special Considerations: Studies broadly covering parental mental illnesses were included only if clear segments addressed the experiences of parents with BD. Papers with data on families in which offspring had reached adulthood were included if they provided historical accounts of parenting during the children's younger years (under 19 years). When details about the bipolar diagnosis or a child's age were unclear, I actively sought clarification from the study authors. If such information remained unavailable, the studies were excluded to maintain clarity and specificity.

Literature Search and Screening

I searched the following databases: Medline, Embase, PsycINFO (via Ovid), SCOPUS, and CINAHL, targeting articles published between 1994 and 2 September 2024. Search dates were as follows: 21 April 2022; 28 December 2022; 2 July 2023; 21 January 2024; and 2 September 2024. A mix of key terms and synonyms related to "parents," "bipolar disorder," "children," and "qualitative research" were used (**Table 3.1)**. Additionally, bibliographies and citation indices of eligible articles were searched via Web of Science.

Table 3.1. The Full Version of the Search Terms (Medline)

Concepts	Keywords
(1) Qualitative	((("semi-structured" or semistructured or unstructured or informal or "in-depth" or indepth or "face-to-face" or structured or guide) adj3 (discussion* or questionnaire*)) or (focus group* or qualitative or ethnograph* or fieldwork or "field work" or "key informant")).ti,ab. or interview*.tw. or interviews as topic/ or focus groups/ or narration/ or qualitative research/ or experience*.tw. or perception*.tw.
(2) Bipolar	(BD or BD1 or BD2 or BDi or BDii or BDNOS or bi-polar or bipolar or manic or mania or hypomania or hypomanic or hypo-mania or hypo-manic).tw. or Bipolar Disorder/
(3) Parent	(parent* or mother* or maternal* or father* or paternal* or famil*).tw. or parents/
(4) Child	(child* or neonat* or newborn* or new-born* or infant* or baby or babies or toddler* or pre-school* or preschool* or school* or youth* or pre-adolescen* or adolescen* or teen* or kindergarten* or nurser*).tw. or adolescent/ or exp child/ or exp infant/
(5) = 1 and 2 and 3 and 4; (6) = Limit 5 to English; (7) = limit 6 to yr = “1994-2023”	

Two team members, HM and I, independently screened titles and abstracts, then reviewed the full texts for relevance. Inter-rater agreement was high, with a Cohen's kappa of approximately 0.92. Disagreements were resolved through discussions with CC and KEAS. For articles with missing or unclear data, I contacted the original authors for clarification.

Initially, the literature search was confined to English due to resource limitations. Recognising the potential of AI tools, I later extended the scope to non-English sources. On 21 January 2024, I used ChatGPT-4.0 to translate and include two additional non-English papers, enriching this chapter's cultural and linguistic diversity. These translations underwent a rigorous back-and-forth procedure and were validated by a researcher fluent in Portuguese and Spanish.

Data Extraction and Analysis

Relevant excerpts were imported into NVivo software (version 1.71) for thematic synthesis, following the approach outlined by Thomas et al. (2008). The analysis focused on the results sections of selected articles to capture the lived experiences of parents and children in the context of parental BD. The coding process involved thorough readings of the articles, generating inductive codes directly from the text. Particular attention was given to direct quotations, as they offered immediate insights into participants' experiences.

After initial coding, related codes were grouped into broader categories, which were extensively reviewed and refined through team discussions using the Miro platform. This collaborative process ensured the categories reflected both the data and the co-constructed interpretations. Final themes were guided by a critical realist epistemology, acknowledging the reality of social phenomena alongside subjective interpretations. ENTREQ guidelines (Tong et al., 2012) were adhered to throughout to ensure transparency and rigour (**Supplement 3.1**).

Quality assessment

The methodological quality of the included studies was appraised using the 10-item Critical Appraisal Skills Programme (CASP) Qualitative Studies Checklist (CASP, 2018). To enable a systematic and transparent comparison of methodological rigour across the studies, I converted the CASP ratings to a numerical scale (0 = 'No,' 0.5 = 'Partially Agree,' 1 = 'Yes') and summed the scores. Following Harries et al. (2023), studies scoring > 8 were categorised as high quality, those scoring 6–8 as moderate, and those scoring ≤ 5 as low. HM and I independently evaluated each study, resolving disagreements through discussion. No studies were excluded, as none exhibited critical methodological flaws warranting removal.

Reflexivity Statement

Our culturally and professionally diverse team blends expertise in mental health and BD with personal parenting experiences. I bring perspectives as a psychiatrist, a family member

of someone with BD, and a parent, while HM contributes insights from working with children and families as a teacher and school mental health researcher. Supervisors KEAS and CC specialise in mood disorders and youth therapies, with SJ and FL focusing on family BD programmes. With four parents among us and cultural backgrounds spanning East Asian and White/Western perspectives, reflective notes and discussions ensured balanced, inclusive interpretations.

3.3 Results

Study Characteristics

The systematic review included 19 studies, detailed in **Table 3.2** and illustrated by the PRISMA flow diagram in **Figure 3.1**. This chapter includes perspectives on parenting experiences from various family roles, with five studies focusing on mothers, one on fathers, three on both parents, eight on children, and two on both parents and children. In total, 54 mothers, 8 fathers, and 42 children were included as informants. The studies were geographically diverse, with 5 from North America, 2 from South America, 6 from Europe, 4 from Asia, and 2 from Australia/New Zealand. Diagnostic methods varied: 7 studies used documented clinical diagnoses, 5 relied on self-reports, and 7 did not specify diagnostic methods. The analysis generated 99 refined codes: 13 from both parents and children, 52 from

parents (2 from fathers, 18 from mothers, 18 from both parents, and 15 unspecified), and 33 from children. **Supplement 3.2** details each study's contribution to theme generation.

Table 3.2. The Characteristics of Studies Included in the Systematic Review (N = 19)

Author, year, location	Study aims [a]	Sample description	Verification of diagnosis	Recruitment method	Data collection/analysis	Main themes	Eligible sample information
Anke et al. (2019), Norway	Investigate postpartum relapse risk perceptions among women with BD	Pregnant or postpartum women with BD I or II (n = 26)	Documented diagnosis	Mental health clinics, child services, well-baby clinics, and maternity wards	Semi-structured interviews / Inductive TA (Braun & Clarke, 2006)	• Perinatal concerns: Illness relapse; Early mothering; Perinatal impact on child; Illness impact on partner • Perinatal resources and preparations: Support network and personal strategies	Mothers with BD (n = 13), aged 25–37 (mean = 32.9)
Aldridge (2006), UK	Assess experiences of children caring for parents with mental illness	Parents with chronic mental illness, their caregiving children, and key workers	Not stated	UK's young carers projects	"One-to-one interview" / Not stated	• Children's care responsibilities: Role adaptation (not just role transference) • Positive outcomes: Caring helps reinforce parent–child bonds • Family needs: Children's care fills the gap in health and social care services	Offspring of parents with BD (OPBD, n = 1)

						• Parenting capacity: Mutable and self-perceived • Recognising children's contribution and needs	
Backer et al. (2017), UK	Examine how living with a parent with BD affects young children's emotional health.	OPBD (4–12 years old)	Self-reported	UK user-led BD organisation	Computer-assisted, semi-structured interviews (In My Shoes) / TA (Braun & Clarke, 2006)	• Perception of parents: Parent with BD, 'well' parent • Knowledge and awareness of BD: Communication about illness, description of illness • Managing family life with a parent with BD: Emotional effects on child; 'Independent' child; Source of support; Avoidance and coping • Living in a family with BD	OPBD (n = 10), aged 4 to 10 years

Bee et al. (2013), UK	Assess quality of life for children in families coping with severe mental illness	Not stated	Self-reported	Advertisement or external emails	Focus groups (professionals) and open-ended interviews (children and parents) / Inductive TA (Ritchie, 1994)	• Emotional wellbeing • Social wellbeing • Economic wellbeing • Family context and experiences • Self-esteem and self-actualisation	OPBD (n = 1) and mother with BD (n = 1)
Campos et al. (2018), Brazil	Exploring adult perceptions of having a mother diagnosed with BD during their childhood and its implications	Adults whose mothers (currently receiving psychiatric treatment) were diagnosed with BD	Documented diagnosis	Adult psychiatry outpatient clinic of the University Hospital	Semi-structured interviews / Content analysis (Pope et al., 2000)	• Childhood: Caregiving burdens, guilt, and insecurity • Adolescence: Maternal rejection, shame, social isolation, and premature adult roles • Adult life: Balancing personal sacrifices with coping strategies	Adult OPBD (n = 7)

		during participants' childhood					
Chen et al. (2021), China	Exploring the parenting and family experiences of mothers managing mental illness	Mothers with current or past mental illness, having at least one child under 18	Self-reported	Social media advertising and online peer support groups	Semi-structured interviews / IPA (Smith, 2012)	• Motherhood as a central identity • Stigma associated with Maternal Mental Illness • Impact of mental illness on parenting: Impact of fluctuating moods on parenting; Feeling guilty, overwhelmed, and helplessness; Self-acceptance • Perceptions about the impact of the mental illness on children: Hereditary worries; Impact on children's development; Reducing the negative impact on children • Experiences of talking to children about mental illness	Mothers with BD (n = 3, OPBD: 4–10 years)

						• How having children impacts mothers' mental illness and their recovery • Support obtained and needed: Helpful support; Unhelpful support; Support needed	
Chen et al. (2023), China	Understand parenting & family experiences of fathers with mental illness	Fathers with current or past mental illness, with at least one child under 18	Self-reported	Social media advertising and online peer support groups	Semi-structured interviews / IPA (Smith, 2012)	• Mental illness undermines fatherhood images • Parenting in the context of mental illness: Positive father-child interaction; Parenting disengagement; Harsh parenting; Inconsistent parenting • Concerns about the negative impact of their illness on children: Fear and protection • Children as a burden and a source of hope • Stigma • Relying on family support: Isolation and connection; Further needs	Fathers with BD (n = 3, OPBD: 5–12 years)

							• Unmet professional and peer support needs: Lack of professional support; Professional/peer support needs	
Davison & Scott (2018), USA	Explore attitudes towards interventions for OPBD	(1) Parents with BD I or II (n = 6, 2 fathers, 4 mothers, median = 48 years) (2) OPBD (n = 7, 3 boys, 4 girls, aged 12-26, median = 16, without psychological Issues)	Not stated	Parents with BD: A mental health conference or local clinical services; OPBD: Community professional network	Open-ended Interviews / TA (Boyatzis, 1998; Braun & Clarke, 2006)	• Information and knowledge about BD • Parents with BD: Identification and modification of risk; uncertainties and expectations for the future • OPBD: Concerns about Parents with BD; Acceptable models of support		As stated in the 'sample description'

Liu et al. (2022), Taiwan	Assess adult children's perceptions of family resilience, its barriers and cultural influence when a parent has BD.	OPBD (n = 20, aged 20 or over, excluding those with parents having other mental illness)	Documented diagnosis	Acute psychiatric ward	Semi-structured interviews / IPA (Crist & Tanner, 2003)	• Family resilience: Ill parents try to be good parents; Parents' personal strengths; Parents' positive attitudes towards BD; Flexible family roles; Strong family bonds; families' social connections • Barriers to family resilience: Poor parenting/family functioning, conflict between parents, poor mental health literacy	OPBD with quotes about experiences up to 18 years old (n = 4, comprising 3 females and 1 male).
Mulvey et al. (2022), USA	Explore motherhood experiences of criminally involved women	Mother with Axis I disorders and daily functional impairments on the SMI probation caseload (n = 48)	Documented diagnosis	Serious Mentally Ill probation caseload	Semi-structured life-course interviews /Unspecified inductive approach	• Normative mothering • Aspiring to break the cycle • Constrained mothering • Failure and state intervention • Children as parents • Children as a catalyst for change	Mothers with BD (n = 12), aged 20s–50s

Pattanayak & Sagar (2012), India	Understand the perspectives of patients with BD and their family members regarding family risk and genetic counseling	Patients with BD (n = 5); Family members of patients with BD (n = 11)	Documented diagnosis	Outpatient psychiatric clinic	Open-ended interviews / thematic analysis (Boyatzis, 1998)	• Emphasis on external/situational causes • Cultural beliefs govern causal explanation • Help-seeking: a shared decision • Perceived genetic risk low, yet worrying • Concerns mainly about future generations • Desire to alter perceived genetic risk • Knowledge of precise risk both helpful and anxiety-inducing • Unmet need for preventive information	One mother with BD: (35 years); One father with BD (31 years)
Petrowski & Stein (2016), USA	Assess role reversal and obligation in young adult daughters; study family bonds and maternal mental illness impact	Daughters of a mother with long-term mental illness (n = 10, aged 18–22)	Daughter-reported	Online student research participation system and undergraduate courses	Semi-structured interviews / Content analysis (Miles, 2014)	• Parentification • Felt obligation • Relationship with father and siblings • Positive growth	One 18-year-old daughter of a BD mother

Reupert et al. (2012), Australia	Explore the experiences of children with a parent who has a dual diagnosis	Children with a parent having dual diagnosis of mental illness and substance abuse (n = 12, aged 8-15)	Not stated	Through an organisation focused on families with a parent having dual diagnosis	Semi-structured interviews / IPA (Smith, 2004)	• Meaning of family • Understanding the parent and his or her illness • coping and reacting • preferred supports	One 8-year-old girl of a mother with BD and cannabis abuse; A 14-year-old boy of a father with BD, ADHD, cannabis & alcohol abuse
Stallard et al. (2004), UK	Assess parent and child perspectives on the impact of the parent's mental illness	Parent with mental illness (n = 24, receiving outpatient care in CMHT) and their dependent children (n = 26)	Not stated	CMHT	Semi-structured interviews / Not stated	• Adult mental health team barriers: Time pressures and limited resources; Client-focused approach; Lack of child-/family-focused skills; Protecting the needs of the adults	Mother with BD (n = 1)

						• Parental barriers: Adult needs dominate; Parental denial & fears; Protecting the children • Child barriers	
Tjoflat & Ramvi (2013), Norway	Experiences of parenting while managing BD	Parents with BD (n = 6; 5 mothers; aged 31-50; children under 18; No other mental illnesses)	Documented diagnosis	CMHT	Semi-structured interviews / IPA (Smith, 2003)	• Balancing BD and parenting • Need for support vs perceiving stigma • Dependence on their children • Change and growth	As stated in the 'Sample description'
Venkataraman & Ackerson (2008), USA	Assess parenting strengths, challenges, and needs in mothers with BD	Mothers with BD I or II (n = 10, 8 BD-I and 2 BD-II)	Documented diagnosis	CMHT and support groups	Semi-structured interviews	• Strengths in parenting: Child importance; Positive traits; Lessons from own parents • Challenges in parenting: Impact of depression/mania; Swings in parenting; Discipline issues; Child-related stress	As stated in the 'Sample description'

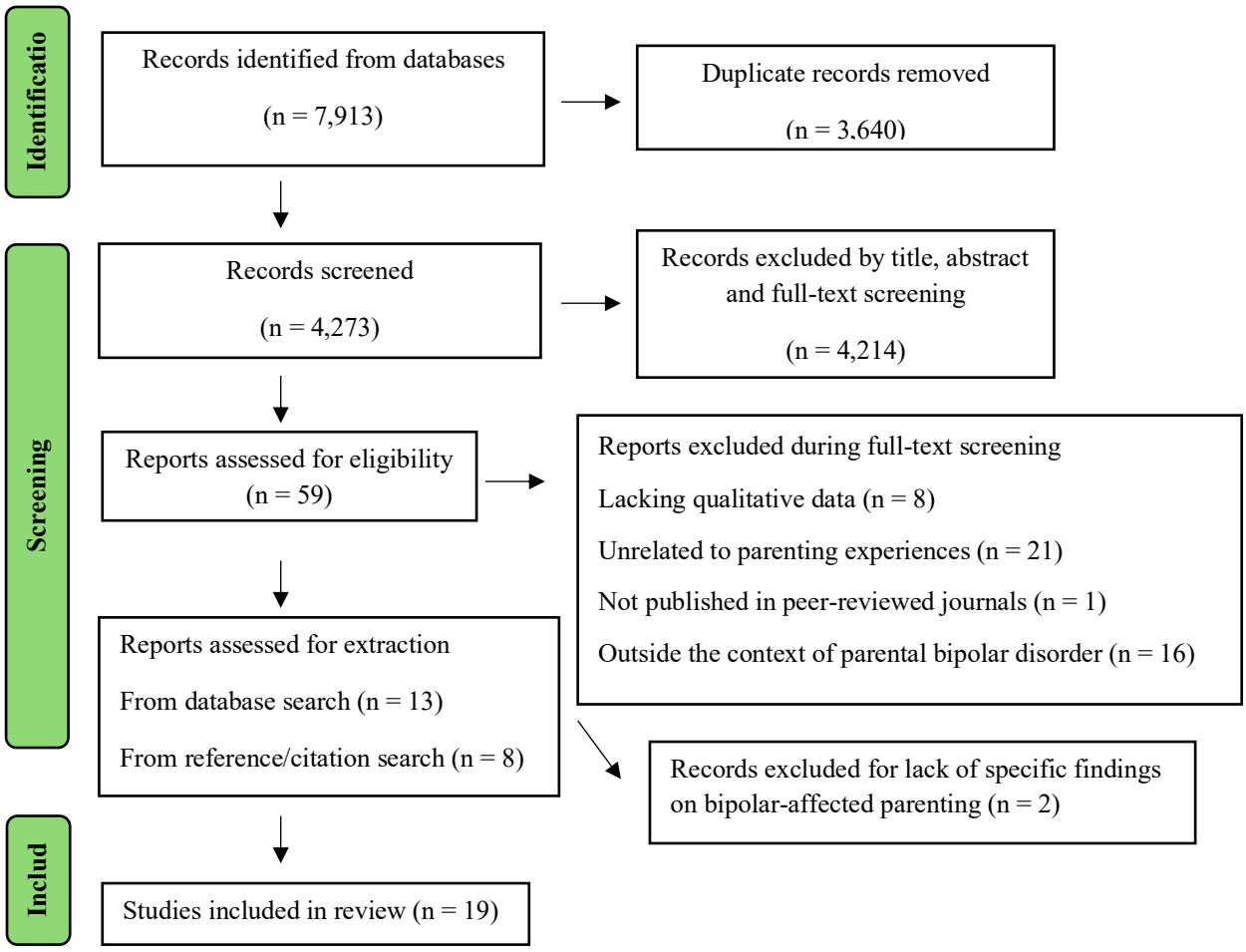
					/ Constant comparison of the GT (Strauss, 1987)	• Service needs: Discipline help; Support groups; Crisis services; Managing child behaviour; Other needs	
Venkataraman (2011), USA	Explore the perspectives of children of mothers with BD in the parenting	OPBD without psychiatric diagnosis (n = 4, Aged 5-13)	Not stated	CMHT and support groups	Semi-structured interviews / Constant comparison of the GT (Strauss, 1990)	• Strengths in parenting: Helpful; Humour; Setting limits; Being available • Challenges in parenting: Oversleeping; Anger; Unpredictable moods; Dependency on children • Other finding: Fear of having or getting the disorder	As stated in the 'Sample description'
Vivanco & Grandón (2016), Chile	Experiences raised by a parent with serious mental illness	Children (aged 18-29) of people with serious mental illness (5	Not stated	Referral by mental health facility staff	Semi-structured interviews and a group interview / TA (Auerbach & Silverstein, 2003)	• Childhood: Fear, vulnerability; concerns for parent safety; uncertainty; sadness; and family protection • Adolescence: Family burden; guilt; role changes; identity formation; difficulty	Adult OPBD (n = 5)

		schizophrenia, 6 BD)				relating to parents; grief; feelings of abandonment and loss; impact of medication, preserving parental role; adapting to change • Young adulthood: Family loyalty; challenges in separating from the family; stigma	
Wilson & Crowe (2009), New Zealand	How parents with BD view their parenting role	Parents with BD (n = 5, 4 mothers, 1 father)	Not stated	Not stated	Unspecified interviews, DSM-IV and popular texts / Critical discourse analysis (Crowe, 2005)	• Moderation • Monitoring emotional regulation	As stated in the 'Sample description'

Note: ADHD = attention-deficit/hyperactivity disorder; BD = bipolar disorder; CMHT = community mental health team; Dx = diagnosis; GT = grounded theory; IPA = interpretative phenomenological analysis; MDD = major depressive disorder; OPBD = offspring of parents with bipolar disorder; SMI = severe mental illness; TA = thematic analysis

[a] The focus here pertains to the original research aim of the study. This study focuses exclusively on extracting information related to the parenting experiences within families affected by bipolar disorder.

Figure 3.1. PRISMA Flow Diagram for the Systematic Review Process



Quality Assessment

Of the 19 studies appraised (**Table 3.3)**, 15 exhibited high and 4 moderate methodological quality. No major deficiencies were identified that could compromise the validity of the data, so all studies were retained. Notably, only Bee et al. (2013) and Reupert et al. (2012) thoroughly considered the dynamics of power between the researchers and participants. This is a critical aspect since unaddressed power imbalances and potential biases might influence participant responses and actions, raising concerns about the integrity of the research findings.

Table 3.3. Methodological Quality Assessment of Included Studies

First author (Year)	Clear statement of the research aims	Appropriate use of qualitative methodology	Research design aligned with the research aims	Recruitment strategy suitable for the research aims	Data collection addressing the research issues	Adequate consideration of the researcher-participant relationship	Proper ethical considerations	Rigorous data analysis	Clear presentation of the findings	Value of the research	Score
Anke (2019)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	No (0)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	High (9)
Aldridge (2006)	Yes (1)	Yes (1)	PA (0.5)	PA (0.5)	PA (0.5)	No (0)	PA (0.5)	PA (0.5)	PA (0.5)	PA (0.5)	Moderate (6)
Backer (2017)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	No (0)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	High (9)
Bee (2013)	No (0)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	High (9)
Campos (2018)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	No (0)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	High (9)
Chen (2021)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	PA (0.5)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	High (9.5)
Chen (2023)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	PA (0.5)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	High (9.5)
Davison (2018)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	PA (0.5)	PA (0.5)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	High (9)
Liu (2022)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	No (0)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	High (9)

Mulvey (2022)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	No (0)	PA (0.5)	Yes (1)	PA (0.5)	Yes (1)	Moderate (8)
Pattanayak (2011)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	No (0)	PA (0.5)	Yes (1)	Yes (1)	Yes (1)	High (8.5)
Petrowski (2016)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	No (0)	PA (0.5)	Yes (1)	Yes (1)	Yes (1)	High (9)
Reupert (2012)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	High (10)
Stallard (2004)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	No (0)	Yes (1)	PA (0.5)	Yes (1)	Yes (1)	High (8.5)
Tjoflat (2013)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	No (0)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	High (9)
Venkataraman (2008)	Yes (1)	Yes (1)	Yes (1)	PA (0.5)	Yes (1)	No (0)	No (0)	Yes (1)	Yes (1)	Yes (1)	Moderate (6.5)
Venkataraman (2011)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	No (0)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	High (9)
Vivanco (2016)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	No (0)	PA (0.5)	Yes (1)	Yes (1)	Yes (1)	High (8.5)
Wilson (2009)	Yes (1)	Yes (1)	Yes (1)	PA (0.5)	Yes (1)	No (0)	Yes (1)	PA (0.5)	PA (0.5)	Yes (1)	Moderate (7.5)

Note: **PA** = Partial Agreement

Overview of Themes and Subthemes

This qualitative meta-synthesis explores the impact of BD on parent–child interactions and relationships, identifying four themes with twelve subthemes. Theme 1, The Multifaceted Landscape of Parenting with BD, examines how BD shapes parenting dynamics. Theme 2, Evolving Dynamics of Child-Parent Relationships, traces children's developmental responses to parental BD. Theme 3, The Dual Nature of Childcare, captures the conflicting roles childcare plays for parents. Theme 4, Navigating Parental Challenges with BD, addresses strategies and support needs for affected families.

Theme 1: The Multifaceted Landscape of Parenting with BD

This theme explores how BD affects parenting, focusing on **Parental Engagement** and **Emotional Regulation**, and highlights the impact of acute mood states, moderated by factors like medication and hypomania. The **Parental Consistency** subtheme examines the long-term challenges of providing stable parenting amidst recurrent mood swings, emphasising the importance of robust support systems in mitigating these effects.

Subtheme 1.1: Parental Engagement

Participants articulated that major mood episodes associated with BD can markedly reduce parental engagement, disrupting familial stability and emotional connection. Fluctuating attention and energy levels contribute to this disengagement. A mother with BD described this experience: "*When you're depressed, you don't have the energy. When you are hypomanic, you don't have the time. So, it impacts you as a mother in both states*" (Anke et al., 2019, p. 5). Another parent noted, "*I am so depressed, I am deprived of energy and I just sit there in the chair or sofa, and it is as if we are somehow not together... it is as if I am in my own world, pondering on things and then the children wonder why you are so distant.*" (Tjoflat & Ramvi, 2013, p. 82). Compounding factors like "*ruminations*" (Chen et al., 2021, p. 5) and

emotional numbness also appear to play roles, with a mother's description exemplifying the latter: "*I know there were days, times, periods that I was depressed enough so that `I just kind of went through life. I didn't feel anything, I just, you know, did the grocery shopping, did the cooking, took care of their needs, but I wasn't happy*" (Venkataraman & Ackerson, 2008, p. 397). Moreover, parental hospitalisation for BD treatment can contribute to temporary disengagement from children's lives. This profound sense of separation and disconnection was described by a 6-year-old child whose mother with BD was hospitalised: "*It's like being on the other side of the world with mommy*" (Backer et al., 2017, p. 218).

Children observed that parental disengagement associated with BD resulted in diminished emotional support: "*she [mother with BD] would still comfort, but not as much as maybe another mother would*" (Backer et al., 2017, p. 217). An 18-year-old reflected on the emotional gap: "*Everyone talks about, like 'Oh, I can go tell my mum this.' I can't... I feel like it's more like I'm the one missing out...*" (Petrowski & Stein, 2016, p. 2879). Others described how disruptions in children's social and academic routines were directly linked to the impacts of parental BD. For instance, a 10-year-old daughter reported, "*I don't really get to do much if she's feeling down. But if she's feeling happy, then I get to do lots of things when she takes me out.*" (Backer et al., 2017, p. 220). Moreover, parental BD impeded basic childcare and raised safety concerns, as illustrated by a BD mother in a psychotic state: "*I started hearing voices and I was sick…my mind was going and my kids were with me…I didn't know how to cook for them, I didn't know how to do anything, so I just walked off*" (Mulvey et al., 2022, p. 1724).

Conversely, hypomanic phases sometimes enhanced parenting engagement, offering an increased energy that some parents found beneficial, evidenced by a mother's reflection: "*having the hypomania helped because I am not sure I could have done all that if I hadn't had that extra boost of energy*" (Venkataraman & Ackerson, 2008, p. 399), and another parent's

experience of shared joy during hypomania: "*we have a lot of fun together, we do things together that no other children experience*" (Tjoflat & Ramvi, 2013, p. 83). These reflections suggest that while BD presents significant challenges to parental engagement, there can also be moments where the elevated mood states associated with hypomania offer a temporary enhancement to the parental role.

Subtheme 1.2: Parental Emotional Regulation

Participants described mood disturbances in BD as deeply affecting parental behaviour, particularly in managing irritability and impulsivity. A father described his mood as causing him to become "*easily irritated"* and "*wanting to physically hurt their child*" (Chen et al., 2023, p. 271). Similarly, a mother's irritability was so acute that "*I was angry all the time at everything…everything she [the child] did just drove me crazy. Even if she sat on her dad's lap, I was mad*" (Venkataraman & Ackerson, 2008, p. 397). Parental responses can escalate due to external stressors, exemplified by a teenager's observation: "*when my mum gets stressed, she swears and hits the kids if they are naughty… we get yelled [at] a lot*" (Reupert et al., 2012, p. 157). Fatigue further exacerbates the issue, with a father noting that tiredness led him to "*negatively interpret the behaviours and emotions of his child*," resulting in "*exaggerated reactions and intense anger*" (Chen et al., 2023, p. 271). During challenging bipolar episodes with psychotic symptoms, one mother experienced distressing misconceptions, where she "*inaccurately accused her son of molesting one of the younger children*" (Mulvey et al., 2022, p. 1724), while another admitted to "*transmit[ting] masculine energy*" through assaulting her son and harbored "*ideas of killing both herself and her son*" (Chen et al., 2021, p. 5).

Conversely, effective management of emotional symptoms through medication significantly enhances parental stability. One parent recounted the stabilising effect of lithium, despite some feelings of inhibition: "*My disease has leveled somewhat after I started with*

lithium, as it has made a tremendous difference; I don't feel so depressed now because of the drugs that I take. I don't feel either really happy or really bored. I may become sentimental, sometimes I cry, but it is not often, and it is not often that I laugh loudly and for long, either; it's a bit inhibiting I think; yes, my kids should have experienced a little recognition, but on the other hand, I'm pretty balanced and I don't feel angry. It would take a lot to make me angry, so there are both advantages and disadvantages " (Tjoflat & Ramvi, 2013, p. 83). Medication has also been instrumental in reducing aggressive impulses, as noted by a mother whose inclination to act on such impulses diminished with treatment (Venkataraman & Ackerson, 2008, p. 397). However, the sedative effects of medication are crucial to consider. A child reflecting on the complexity of medication's impact on his mother with BD noted, "*I don't know if it's because of the illness or the medications, they're bringing her sedated and she's not the same person she was before, she was a happier person...with more energy*" (Vivanco & Grandón, 2016, p. 181).

Alongside medication, humour was identified as a key emotional regulator for parents with BD; a 10-year-old's observation highlights its efficacy reveals its role in mitigating parental mood swings: "*when she is angry or sad, sometimes something funny will happen, like something my brother says that will cheer her up (laughs)... she has a very good sense of humour*" (Venkataraman, 2011, p. 99). Furthermore, some mothers used humour to reframe their experience with BD, adding a layer of lightness to their emotional challenges. As one mother expressed, BD "has made life interesting" (Venkataraman & Ackerson, 2008, p. 395). These insights suggest that, in addition to medication, positive personality attributes like humour can be a valuable resource for parents managing BD.

Subtheme 1.3: Parental Consistency

Participants highlighted that parenting behaviours in BD can vary with the severity of mood fluctuations, creating a volatile environment for both the parent and child. Anke et al. (2019, p. 6) note that the extent of these impacts "*depends on the intensity of mood deviations*." The variability in parent–child dynamics is evident in a mother's account: "*For one month I will just be awesome, and everything is done…and the next month just get away from me, leave me alone*" (Venkataraman & Ackerson, 2008, p. 400). This unpredictability permeates disciplinary approaches as well, with a group of mothers conceding to "*being inconsistent in enforcing rules with their children*," citing mood instability and cognitive impairments as primary causes (Venkataraman & Ackerson, 2008, p. 400) . The unpredictable mood patterns associated with BD can significantly impact a parent's ability to provide childcare. Stallard et al. (2004, p. 48) described a mother with BD "*At times she could not look after herself or the children*". Additionally, Tjoflat & Ramvi (2013, p. 84) reported that several parents acknowledged their need for "*additional support in caring for their children,*" underscoring the difficulties faced in managing parenting responsibilities amidst BD's fluctuating moods. Moreover, the non-affected partner is not immune to these challenges; for example, a four-year-old observed his father to be "*angry and stressed*" while navigating familial responsibilities during the mother's period of instability (Backer et al., 2017, p. 218).

In contrast, a robust support system is essential for maintaining parenting consistency among families with BD. It compensates for fluctuating parenting roles and is important in providing access to support, helping to prevent mood changes from escalating into severe episodes. Partners play a critical role of "*supervising their [parents with BD] parenting behaviours when ill*", particularly during emotional challenges, as a father with BD recounted (Chen et al., 2023, p. 273). Furthermore, partners often assumed the primary caregiving role in the absence of the parent with BD. This dynamic was illustrated by the experience of a 7-year-old: "*Daddy's normally with us, looking after us by himself, especially when she [mother with*

BD] went to the hospital" (Backer et al., 2017, p. 218). The support extends further, as described by a young adult's memories of extended family stepping in when a parent was unwell: "*I remember when I was a little kid and Mum did not feel well, my grandfather would come and take care of us for a week or more. The brothers and sisters from both sides of my father and mother would help us*" (Liu et al., 2022, p. 181). Non-familial networks, or "*friend families*", further reinforce this system, with one mother expressing gratitude: "*you do have people that are not your blood family, but they are your friend family…we are fortunate*" (Anke et al., 2019, p. 8). Combining these insights, it is evident that while BD presents challenges to consistent parenting, the surrounding support from partners, family, friends, and community resources can provide the necessary structure and stability to navigate this fluctuation.

Theme 2: The Evolving Dynamics of Child-Parent Relationships Amidst Parental Bipolar Disorder

Parent–child interactions in the context of BD evolve as children mature, with their understanding, adaptation, and caregiving roles transforming over time. Across developmental stages, children face distinct emotional and practical challenges as they adjust to living with a parent managing BD.

Subtheme 2.1: From Limited to Comprehensive Understanding

Children's grasp of BD typically evolves with age, with marked differences in understanding and engagement. Backer et al. (2017, p. 217) note that children aged 4-6 years often remain outside discussions of BD and exhibit no inclination to inquire about it, leading to situations where a six-year-old cannot understand why his mother "*just cries for no reason*", blame themselves for "*making his mother angry*". From 7-10 years, children may have a growing curiosity about BD and a basic understanding, using terms like "*unwell*", "*being ill*", "*a mental illness called bipolar*," and may even start to consider the possibility of developing

BD themselves. For example, a 9-year-old boy reflected on this concern, saying "*He [father with BD] thought I had it… I was having more and more things to do with Bipolar and he's told me that I might have it" (*Backer et al., 2017, p. 219). As children mature and their awareness of BD grows, they begin to confront more complex feelings. A 10-year-old described her anger when her routine was disrupted because of her mother's BD: "*if we plan to go to a place and all of a sudden, my mum gets stomachache or irritable. I get quite angry cos we've already planned it and I've been looking forward to it*" (Backer et al., 2017, p. 220). Young adults reflecting on their childhood recalled anxiety about the possibility of a parent's relapse: "*I was always very worried. When I noticed that she was a bit weird…I already noticed it. I was the first to notice, even as a child.*" (Campos et al., 2018, p. 41), and sadness due to changes in a parent's personality from BD: "*there was a change in her. When she got sick…there was a change in terms of her personality, her way of reacting. It was very heartbreaking for me, I mean, it took me years to recover from that experience*" (Vivanco & Grandón, 2016, p. 179).

Adolescents' developing understanding of parental BD, is often confounded by unpredictable mood fluctuations. One adolescent articulated the challenge: "*You couldn't tell if she was okay because she oscillated between love and anger*" (Campos et al., 2018, p. 42). Adolescence brings a complex mix of emotions along the journey of understanding parental BD, including shame and anger. A young adult recalled: "*I didn't want anything to do with my mother…she was crazy, I was angry with her*" and added, " *Sometimes she [mother] didn't take care of herself...didn't do her hair, didn't put on clothes, or wanted to wear inappropriate clothes … without understanding the problem I felt embarrassed*…" (Campos et al., 2018, p. 42). Concurrently, teens may gain further insight into how parental BD shapes their own identities. For example, a 15-year-old linked a unique aspect of her character to their parent's BD: "*sometimes I act really different…I think I inherited a bit of her mood disorder*,"

embracing this positively: "*It makes me who I am and makes me a unique kind of person*" (Venkataraman, 2011, p. 103).

Subtheme 2.2: From Reactive to Proactive Coping

Children's responses to parental emotional challenges also appear to be age dependent. Young children may act out by "*fighting and being naughty*" or feel "*scared when the parent was angry*" (Backer et al., 2017, p. 217). Emotional disengagement is another response to parental aggression; as one mother with BD observed, "*If I'm punching the wall, or I scream, ... she's [the child] just not there emotionally*" (Bee et al., 2013, p. 5). With maturity, coping methods advance; a 9-year-old learned to keep their distance: "*if she [mother with BD] is angry then I know to...avoid her slightly*" (Backer et al., 2017, p. 222). However, a 15-year-old described cautious engagement: "*I just kind of sit back and listen to how she ... reacts to [others] and then if I have something I have to ask I ask if she is in a good mood... [If in a] bad mood I really don't want to ask her because her first word is going to be, 'No.' I mean, even if it is a small thing like 'Can I take the dog for a walk? 'No'*" (Venkataraman, 2011, p. 101)

In addressing childcare challenges due to parental BD, younger children often turn to other family members for support. A 4-year-old reassured her mother with BD by saying: "*Mum, you can stay at home [to rest]. I'll play with Grandma*" (Chen et al., 2021, p. 5). As they grow, children increasingly manage self-care and assume caregiving roles. A 7-year-old demonstrated self-care by managing his routine amidst parental depression: "*I go downstairs, play, decide when I have my breakfast, make the breakfast… wait until daddy's down*" (Backer et al., 2017, p. 221). An 8-year-old described providing sibling care: "*I help look after my little sister when mum needs a break*" (Reupert et al., 2012, p. 157). A teenager described overseeing home safety "*when her mother slept*" amid depressive spells (Venkataraman, 2011, p. 100). In some cases, these roles extend to crisis management. A mother with BD acknowledged her 10-

year-old daughter's role in "*ensuring that [her mother] was taking her psychotropic medication every day, policing any mental health crisis [mother] may have, and also trying to protect her during it"* (Mulvey et al., 2022, p. 1729). Teenagers may also confront familial challenges. One described intervening against her violent father with BD: "*My father was also violent to my mum; that made me feel very angry…I urged my mother to leave him… I frequently argued with him*" (Liu et al., 2022, p. 180). Furthermore, an 18-year-old described defending her mother from social stigma: "*I feel like I have to defend her [mother with BD] when people talk about her*" (Petrowski & Stein, 2016, p. 2877).

Besides age, the duration of exposure to parental BD significantly influences children's adaptation. A girl remarked, "*I've probably got used to it [parental BD] when I turned ten*" (Backer et al., 2017, p. 219). A 13-year-old boy mused about his mother's long-standing BD, stating: "*She [mother with BD] has probably had it longer than you have been alive, and so you have probably actually grown up with it, except you haven't known it, and so, can I go make a big deal about nothing?*" (Venkataraman, 2011, p. 103).

Subtheme 2.3: From Compassionate to Overwhelmed Care

Children's instinctive readiness to assist their parents can manifest as joy, exemplified by a 10-year-old: "*When my mum feels irritable, but I know it's not her fault…I feel happy because I like helping her [mother with BD]*" (Backer et al., 2017, p. 221), a quest for significance, as expressed by a 15-year-old: "*I would like to have responsibilities because I feel like needed*" (Venkataraman, 2011, p. 101). However, in the absence of a robust support network, parental reliance on children may intensify, as a widowed mother acknowledged: "*since my husband has passed away, I make a lot of excuses for her. Well, she (daughter) has got to be right next to me all the time*" (Venkataraman & Ackerson, 2008, p. 394). This often results in a role reversal, as a young adult recalled from her adolescence: "*So, the roles changed,*

and this marked me a lot, because the roles, indeed, changed, I became the mother and she practically my daughter. I was... the mother in my house. In every way, I took care of the house chores, the shopping, the money, how the house was managed…I bathed my mum, combed her hair, everything..." (Vivanco & Grandón, 2016, p. 181).

Parents with BD are aware of the emotional burden their children bear in caregiving roles, as one parent with BD reflected: "*They [children] are supposed to look after for me, protect me, and that's not good*" (Tjoflat & Ramvi, 2013, p. 86). These roles can cause varying levels of emotional distress in children. A teenager expressed feelings of annoyance: "*I will be wanting to go outside, she will go 'Can you please just wait for me to take the shower?'… I just feel like, 'Why do I have to be here… for you to take a shower… Come on, Mum, why don't you take one on your own.*'" (Venkataraman, 2011, p. 102). The anxiety over a parent's well-being was echoed by another child, as reported by a mother: "*she [the child] is like 'Get up!' You haven't taken your pill yet…you're gonna act up, and you're gonna leave us*" (Mulvey et al., 2022, p. 1729). This caregiving strain can lead to depression, as a 15-year-old described after her mother's suicide attempt: "*It just… kind of affected me slightly mentally, having to deal with what she's like. Like, past like attempts of her trying to take too many pills, like and sort of how to keep her calm. It's hard. The doctor's said I'm depressed*" (Bee et al., 2013, p. 4). An adolescent recounted the turmoil of managing a turbulent family life: "*I had to take care of my mum and also worry about my father's [with BD] drinking problems and debts...I had run away from home several times*" (Liu et al., 2022, p. 182).

Theme 3: The Dual Nature of Childcare for Parents with BD: Balancing Challenges and Rewards

BD introduces a complex dynamic to parenting, influencing both parent–child interactions and the internal experiences of the parents. As parents navigate the intricate

balance of personal energy distribution, emotional responses, and motivations, a duality emerges, casting shadows and light on the complex journey of parenting with BD.

Theme 3.1 Childcare as Top Priority vs Self-Care

Parents with BD must constantly balance self-care with parenting demands. Limited time and energy often intensify this balancing act. One parent captured the tension, noting, "*if I am not in a good space, then I have to use all my energy just to look after me and cope*" (Wilson & Crowe, 2009, p. 880). Another parent underscored the essential nature of self-care, stating, "*I think there needs to be, like, a place where we could take our kids, to take them somewhere, because we need time to ourselves, but I mean for just bipolar*" (Venkataraman & Ackerson, 2008, p. 404). Despite personal challenges, many parents with BD described prioritising their children, often valuing time with their children over taking breaks: "*I value most my time with them [children]. I love being with them. I don't ever want vacations from them*" (Mulvey et al., 2022, p. 1722). This commitment is evident in expressions such as "*my children are the most important*" and "*I push myself as much as I can… it hurts not to have enough strength for my children*" (Tjoflat & Ramvi, 2013, p. 82). Highlighting energy management, a mother with BD noted, "*There are things that have to be done, but it's important that I don't use all my energy dealing with them. The most important [thing] is to use my time with my child and with us as a family. I need to have the energy for that*" (Anke et al., 2019, p. 9).

Theme 3.2 Childcare as Emotional Comfort vs Strain

The parent–child bond often serves as an emotional anchor for parents with BD. Their children have been described as "*little suns who are energetic and happy*" (Chen et al., 2021, p. 6), symbolising "*positive emotions*" and bridges of "*connection*" (Chen et al., 2023, p. 272). Support from children is evident in comments such as, "*I make her [mother with BD]*

laugh...She'll forget all about it, and then I know I've helped" (Aldridge, 2006, p. 82) and "*When my father was in the hospital, I would share interesting things that happened at school*" (Liu et al., 2022, p. 81). Routine childcare soothes parents' minds, as one noted: "*it [childcare routines] keeps my symptoms down too because I feel important. I feel like I'm needed*" (Mulvey et al., 2022, p. 1731). Such feelings are magnified during parenting successes, with a parent sharing, "*My children were doing so well... this is actually a victory for me, I am not worse than other persons, even though I am ill*" (Tjoflat & Ramvi, 2013, p. 86).

However, the challenges of BD can amplify guilt in parents over their irritability and need for solitude: "*I feel guilty a lot of the time because I get irritable with them*" (Wilson & Crowe, 2009, p. 880) and "*I just need to be alone, and that weighs heavily on my conscience because I have chosen to have a husband and a child*" (Anke et al., 2019, p. 6). This is exacerbated by self-doubt, with a parent admitting: "*I felt really useless as a parent*" (Wilson & Crowe, 2009, p. 880). The strain intensifies when parents with BD see their child's emotional distress: "*He [the son] said 'you and your bipolar… you've ruined my life'... I couldn't sleep that night..., I felt so worried and guilty...cos I was responsible…*" (Davison & Scott, 2018, p. 1115). When both parent and child face emotional turbulence, the relationship dynamics become more complicated, as voiced by a parent with BD, "*the friction between us is harder... it just does not mix*" (Tjoflat & Ramvi, 2013, p. 402).

Theme 3.3 Childcare as Motivation Promoter vs Underminer

Active participation in their children's lives can give parents with BD a sense of purpose. Tjoflat and Ramvi (2013, p. 85) quoted parents with BD who had increased motivation in the context of enduring depressive symptoms: "*I know that I have kids to wake up for every day…instead of just sitting down and going to sleep, I wait for them to come home from school*.", and to help cope with self-harm and suicidal tendencies: "*without my children, I would not be*

here, it's that simple; thinking about them saved my life." Furthermore, aiming for a brighter future for their children, a father with BD was motivated towards "*treatment and self-growth"*, as he *"hoped to provide them with a good life experience*" (Chen et al., 2023, p. 272). However, separation from children can elicit varied responses from parents, either having increased motivation to pursue treatment to "*bring back my child*" from other family members (Chen et al., 2021, p. 6) or triggering despair around finding purpose, as conveyed by a mother with BD who admitted, "*I just felt like I'd rather die than not be able to, and lose them all over again*" (Mulvey et al., 2022, p. 1727). In summary, children's presence often gives parents with BD purpose and strength, while their absence can heighten emotional distress, prompting healing efforts or deep sorrow.

Theme 4: Navigating Parental Challenges with Bipolar Disorder

This theme highlights the critical support needs of families with parental BD. Parents employ mindful strategies, balancing self-monitoring, proactive parenting, and vigilance over hereditary risks to create a supportive environment for their children. They strive for open communication to help children understand the condition while managing concerns about burdening them or undermining parental authority. Empathetic and empowering support is essential for overcoming stigma, isolation, and gender-specific barriers, with peer support, self-compassion, and tailored assistance from family and professionals playing vital roles.

Subtheme 4.1 Mindful and Proactive Strategies to Parent Children

Parents with BD described mindful strategies to better understand and navigate the disorder's impact on their children. For instance, a parent with BD shared a process of self-reflection, "*I spend a lot of time analyzing myself, trying to work out whether…I am just doing things on… an emotional level or… a more sort of logical level*" (Wilson & Crowe, 2009, p. 881). Another father with BD valued his child's reactions as a gauge for his parenting

effectiveness, stating: "*He [child] is a good mirror. Because I care so much about him that I put more effort into reviewing all my parenting and his reactions*" (Chen et al., 2023, p. 272). These parents actively seek support to ensure their children's well-being. Stallard et al. (2004, p. 48) describe a situation where a mother with BD, concerned about her own anger, feared for her children's safety. In her words, "*when she [the mother] became angry, she expressed a fear that she might seriously harm her children. She felt her children were at risk and had asked social services to look after them [the children]*". A mother with BD expressed the need for professional guidance on methods to manage the effects of her mood problems on children, "*Let's say I get angry at my child … how can I manage that with my child? Or is it okay if I don't deal with it? If I need to deal with it, then what should I do? ... What do parents in our situation need to be aware of when we are with our children?"* (Chen et al., 2021, p. 7).

Parents with BD, aware of the disorder's hereditary risks, show heightened concern about its transmission to their children, as one mother expressed, "*so afraid my child had inherited my illness*" (Chen et al., 2021, p. 5). These parents become particularly attentive to early signs of BD in their children and strive to differentiate early BD symptoms from normal behaviours. Davison and Scott (2018, p. 1114) described a parent with BD who conveyed, "*I spend too much time trying to work out if anything he does is a sign or a symptom… it stresses me out… I just wish someone would tell me when I can ignore it and when I need to start to worry*." Moreover, some parents emphasise the value of early diagnostic methods, like genetic testing, yet often seek a level of certainty that may not currently exist. One parent articulated, *"…if I knew which of my kids was at risk, then I could do something surely to stop it happening… maybe we could move house or change our lifestyle or do something to reduce the chances that it (onset of BD) would happen…*" Additionally, there is a strong emphasis on fostering a nurturing environment to possibly mitigate these risks, even as they navigate their uncertainty about how to best protect their children. This sentiment is encapsulated by a

father with BD, "*I am very sensitive to any complaint from my five-year-old son, especially after struggling with illness for so many years. Now I do not want it to surface in my son…. I try to raise him in right manner, teach him healthy habits… if there is something else I can do, tell me….*" (Pattanayak & Sagar, 2012, p. 466).

Subtheme 4.2: Transparent and Tactful Communication to Strengthen Parent–child Relationships

Children's strong motivation to understand parental behaviours linked to BD is clearly demonstrated in instances like this child's earnest inquiry to a parent with BD: "*why don't you answer when we're speaking to you, why don't you hear*" (Tjoflat & Ramvi, 2013, p. 84). Participants described how open dialogue about parental BD can be supportive for children. By explaining that specific behaviours are linked to the disorder, a mother with BD revealed that children might "*understand that it's not their fault that mum or dad has an emotional problem... [and] don't blame themselves*" (Chen et al., 2021, p. 6). Such communication instils hope, as illustrated when the same mother told her daughter: "*Mum is on medication now, and then I'll slowly calm down*" (Chen et al., 2021, p. 6). This also readies children for possible relapses, as highlighted by Backer et al. (2017, p. 219), "*their parents discussing their symptoms... knowing their parent's mood so they could be prepared.*"

However, the intricacies of parent–child communication are further complicated by the mood symptoms characteristic of BD. As highlighted by Tjoflat and Ramvi (2013, p. 84), a parent admitted, "*my kids wonder and they want to talk, and basically it goes well, but sometimes it is so difficult, I have enough to deal with in my own head, I have too many thoughts, I don't want to talk whenever they want.*" The same study revealed that parents with BD are aware of the potential for *"adding an additional burden on their children*" by openly discussing their condition. Additionally, some parents struggled to translate intricate psychiatric jargon

into language children can grasp, leading them to question "*how to talk about it*" (Chen et al., 2021, p. 6; 2023, p. 272). This hesitation is further emphasised among fathers with BD, as highlighted by Chen et al. (2023, p. 271), who often see themselves as those who "*protect the family*" and serve as mentors to guide their children to "*explore the world*." This paternal self-image can complicate their openness about their condition, as evidenced by a father's worry that disclosing his BD could undermine his authoritative image, leading to fears that "*it might make the mountain-like father figure collapse into a pile of crumbs*".

Subtheme 4.3 Empathetic and Empowering Measures to Support Parents

Support for parents with BD in parenting is crucial, as one parent with BD emphasised, "*We should have had more help*" (Tjoflat & Ramvi, 2013, p. 84). Such support is often hindered by misunderstanding and stigma, leading parents to conceal their condition, thus limiting their access to vital support. Chen et al. (2021, p. 7; 2023, p. 273) revealed that parents with BD, regardless of gender, perceive their illness as either "*unacknowledged or unaccepted*" by partners and family. This perception can lead to a sense of isolation and hesitancy in seeking familial support. In professional contexts, parents with BD may also encounter judgmental attitudes. For instance, a parent with BD expressed feeling judged by a mental health professional during an appointment for their child: "*I felt like he [the professional] was blaming me – I was sitting there with this child that I had deliberately ruined*" (Wilson & Crowe, 2009, p. 881). The fear of judgment may prompt parents to mask their symptoms to conform to societal expectations. As a parent with BD explained, *"you try to be a good parent…So you don't want other people to know that you are not quite right at the time, so you try to hide it, pretend there is nothing wrong, sweeping it under the carpet."* (Wilson & Crowe, 2009, p. 881). Similarly, concerns about their children's welfare can lead to further self-censorship, as a mother with BD confessed to withholding "*all my information"* because *"I don't know if I'll be the cause for my daughter being teased or bullied at school*" (Chen et al., 2021, p. 5).

The importance of empathetic understanding in support structures is crucial for these parents. A mother with BD highlighted the value of peer support groups, specifically those comprising individuals with shared experiences: "*I would have to say it has to be with others that have bipolar because you don't want to get someone without bipolar who doesn't understand the conflicts or stresses that a bipolar person goes through*" (Venkataraman & Ackerson, 2008, p. 403). Parents with BD have highlighted a need for self-compassion and empowerment. Reflecting on her internal struggles, a mother shared her journey towards self-compassion, revealing, "*I was possibly asking myself to be more perfect [as a mother]. I couldn't accept that I wasn't able to be extra good to her [the child] with all my heart and soul. In moments of such self-doubt, I'd rather not be with her...However, recognising this harsh self-critique, I have been striving to find a more balanced perspective*." (Chen et al., 2021, p. 5). Through the guidance of counseling, this internal dialogue culminated in a realisation that "*it's okay to be an 80-point mum when I'm not well*" (Chen et al., 2021, p. 6). On the theme of empowerment, a father with BD captured the essence of his needs, asserting, "*The first thing is [letting you know] 'you're normal' and the second is 'you can do it,'*" as noted by Chen et al. (2023, p. 274). Another mother articulated her pursuit of empowerment in her parenting journey, stating, "*I would just like to know how to be a stronger parent, ensuring my kids respect me. While honesty and openness with them are paramount, sometimes I need discernment on when to hold back*" (Venkataraman & Ackerson, 2008, p. 401).

Addressing the gender-specific challenges in supporting parents with BD is essential. Fathers with BD often face unique barriers in seeking support, possibly influenced by paternal role expectations and smaller support networks than mothers. For instance, one father avoided seeking familial support due to his "*strong personality*" and reluctance to "*worry my family*" (Chen et al., 2023, p. 273). This can result in isolation, with some fathers relying on their children as their link to the external world, as one father noted: "*when I wasn't well… I need a*

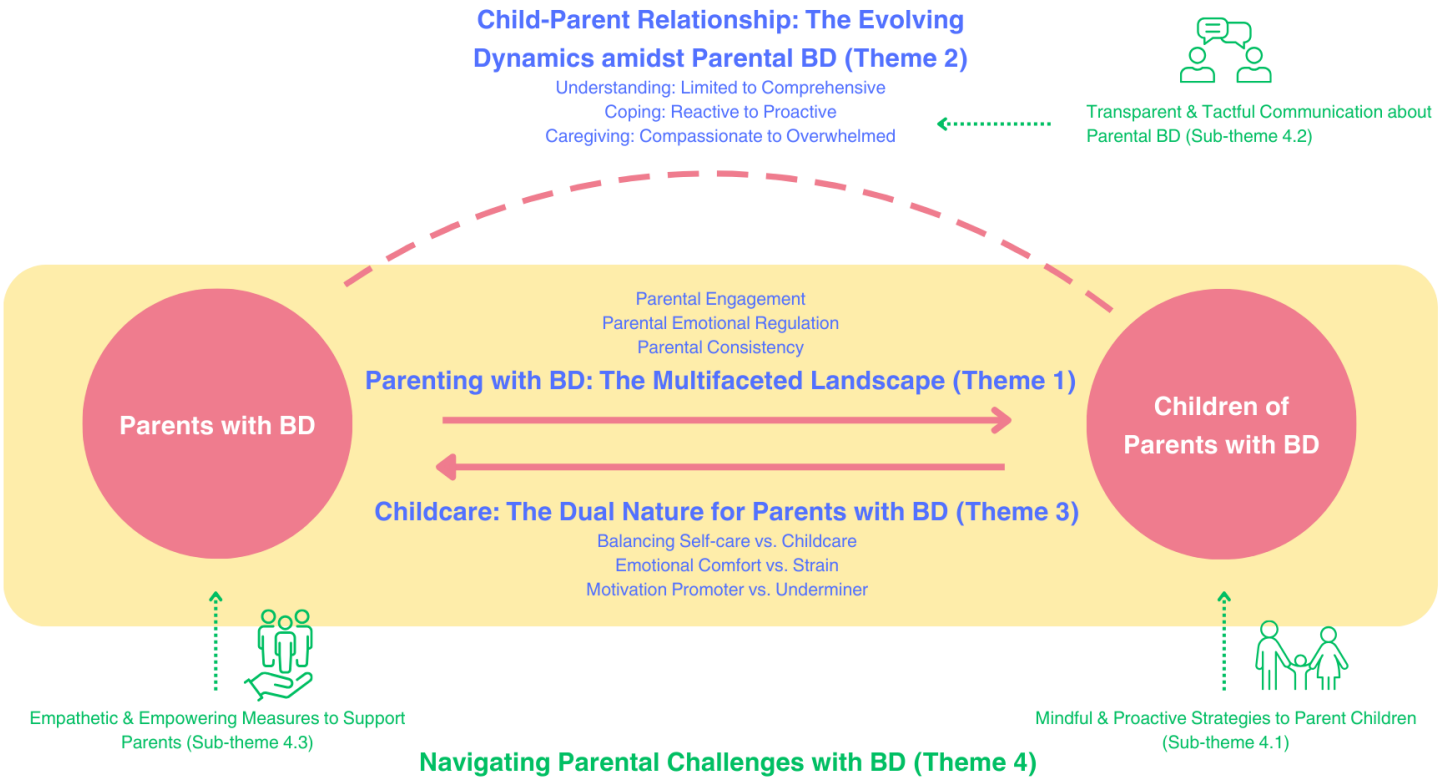
connection from the outside world more than anything else. At that time my child was the one that I thought was more stable and secure in the world… for me" (Chen et al., 2023, p. 272). In contrast, mothers with BD tended to seek support from family and friends, finding reassurance and practical assistance in their networks, as illustrated by a mother's experience: "*my parents are close all the way. They live nearby, and it's both for the sake of me and our child, and not the least for the sake of my husband. Because when I get ill, he goes to them and they make plans together, and I don't have to think about it*" (Anke et al., 2019, p. 8).

3.4 Discussion

This chapter is the first study to specifically explore parent–child experiences in the context of BD using a qualitative synthesis approach. It intricately dissects the dynamics of families grappling with BD, with experiences reflecting four central themes (**Figure 3.2**). The first theme examines the multifaceted challenges of parenting in the context of BD, showing how mood swings associated with BD can affect parental engagement, emotional regulation, and consistency. This theme also encompasses compensatory mechanisms, such as effective treatment, coping strategies, and support networks in mitigating the impacts of BD. Moving to the second theme, I chart the progressive deepening of children's understanding of BD, from basic awareness to more complex self-reflection. This theme also details their emotional journey, including the shift from passive to active coping strategies when living with a parent who has BD, as well as experiences of both empowerment and emotional strain due to early caregiving roles. Theme three contrasts the potentially competing demands of parenting and self-care among parents with BD. It highlights that parent–child relationships, while being a stabilising and motivating force, can also lead to self-criticism during challenging periods. The fourth theme shifts focus to targeted strategies aimed at alleviating the effects of BD on key domains—self-regulatory and proactive strategies for child well-being, open and affirming communication for the parent–child bond, and empathetic and empowering support for the

parents themselves. Overall, this research advances my understanding of how BD affects parent–child interactions. It underscores the dynamic evolution of these relationships across various stages of BD and child development, highlighting the need for tailored support that addresses the unique needs of both parents and children navigating the complexities of parental BD.

Figure 3.2. The Conceptual Model Depicting Themes and Sub-themes



This research explores specific parenting challenges in the context of BD. Echoing findings from qualitative syntheses on parenting across severe mental illnesses (Dolman et al., 2013; Harries et al., 2023), I have observed the tension between parental self-care and childcare, along with the dual emotional and motivational effects of childcare, suggesting that these issues are common across various major mood and psychotic disorders. This underscores the importance of incorporating childcare considerations into support strategies for families

affected by BD. While parental withdrawal and emotional regulation difficulties were also noted in Harries et al. (2023), this chapter indicates that parental inconsistency may be a particularly pertinent feature of BD. Furthermore, while Harries et al. (2023) described child emotional distress and parent–child role reversals in response to parental severe mental illnesses, this chapter provides more in-depth insights into parent–child interactions in the context of parental BD, including how children understand and cope with, and even support, parental BD as they age.

This chapter highlights the significant challenge of consistent parenting in parents with BD, driven by fluctuating behaviours and capacities due to mood swings. Children of these parents may experience ongoing inconsistency because BD involves two levels of mood fluctuations: (1) Episodic shifts between euthymic, subsyndromal, or full-blown manic and depressive episodes (Joffe et al, 2004), and (2) moment-to-moment and day-to-day mood lability, involving both negative and positive emotions, even outside bipolar episodes (Moraga et al., 2024; Sperry & Kwapil, 2022). This mood instability and variability across different timescales are more characteristic of BD than unipolar depression, such as MDD (Angst et al., 2003; Bartoli et al., 2024). In addition, fluctuations in functional capacity in BD (Proudfoot et al., 2014) contrast sharply with the more chronic course seen in schizophrenia (Flaaten et al., 2023). This chapter highlights how children can respond with anxiety and confusion to parenting inconsistency. Negative impacts on children's emotions and behaviours are echoed in general population studies. For example, longitudinal research has shown that parental inconsistency can predict depression, aggression, and behavioural issues in adolescents (Carrasco et al., 2015; Surjadi et al., 2013). Further research is needed to explore the effects of parenting inconsistencies on children and families, and mixed-methods studies will be crucial for improving my understanding of how mood variability in BD across different time scales impacts parenting and parent–child interactions. These insights could guide the

development of personalised support programmes and improve systems to better meet the dynamic needs of BD-affected families.

Another key finding is the evolving nature of parent–child interactions as children grow older, particularly in how they understand, react to, and cope with parental BD. The more comprehensive understanding and proactive coping strategies observed in older children and adolescents may be linked to several factors: prolonged exposure to parental BD, improved cognitive functions such as emotional recognition and regulation (Khawar et al., 2014; Sanchis-Sanchis et al., 2020), and a growing desire for autonomy during adolescence (Sebastian et al., 2008). However, adolescents are at higher risk for depression, more severe anxiety, and greater impairment in school functioning than younger children (Baker et al., 2021; Waite & Creswell, 2014). In addition, older offspring are more heavily impacted by caregiving roles due to increasing demands to provide emotional support for their family, alongside growing school and social responsibilities (Jurkovic, 1998) and the ongoing process of separation-individuation (Kins et al., 2012; Shah et al., 2023). In keeping with these reflections, the wider psychological intervention literature suggests that interventions for children and adolescents must be developmentally appropriate, considering factors such as age-specific language, tasks, and treatment delivery (Baker et al., 2021; Waite & Creswell, 2014). My work builds on these insights, highlighting the need for age-specific interventions tailored to children's developing comprehension, emotional responses, coping strategies, and caregiving roles in families with a parent with BD. For younger children, interventions might centre on helping parents decode the emotions behind, and respond effectively to, children's behavioural issues, alleviating child guilt stemming from misconceptions about parental mood fluctuations through age-appropriate communication, and ensuring that support systems are effective when parents are affected by BD. For older children and adolescents, strategies might include fostering adjustment to

parental emotional states, addressing emotional reactions to BD's impacts, identifying early signs of youth mental health problems, and mitigating excessive caregiving responsibilities.

My findings suggest that families with a parent who has BD may benefit from multifaceted support, including parental mood management, support for parent–child interactions and parenting practices, and specific communication about BD. This builds on previous findings, including intervention studies which have demonstrated the feasibility and positive impacts of addressing some of these areas. First, previous studies have highlighted that BD disrupts family functioning and increases caregiver burden (Reinares et al., 2016), and broader research shows reciprocal effects between parent and child psychopathology (Gunlicks & Weissman, 2008; Wesseldijk et al., 2018), underscoring the potential value of addressing parental BD through direct treatment, caregiver support (Reinares et al., 2008), and peer networks (Kelly et al., 2019). Second, the IBPI programme, which focuses on parental well-being and positive parenting through a parent-only approach (Jones et al., 2017), and the RUSH programme, which addresses parenting stress and parent–child dynamics via separate group sessions for parents and children (Resendes et al., 2023; Serravalle et al., 2021), have both shown positive mental health benefits in at-risk children. For at-risk adolescents with non-BD mood disorders, family-focused therapy, promoting family communication skills and problem solving, has led to longer remission periods and reduced suicidal ideation among offspring (Miklowitz et al., 2020a; Miklowitz et al., 2020b; Weintraub et al., 2022). Third, Beardslee's Family Talk Intervention, which facilitates parent–child conversations about parental depression, has demonstrated sustained improvements in children's understanding of the illness, along with reductions in child anxiety, emotional symptoms, and improvements in prosocial behaviours (Beardslee et al., 2003; Beardslee et al., 2007; Solantaus et al., 2010). A similar approach may benefit families affected by parental BD. Overall, existing evidence suggests these multi-faceted approaches could be advantageous for families with a parent with

BD. However, comprehensive studies are needed to determine which strategies, structure, and timing are most effective across diverse family contexts. Such research would allow for tailored interventions, adapting support to each family's unique needs.

This chapter reveals significant gender-based differences in the experiences of parents with BD, with a particular focus on the unique challenges faced by fathers. The limited representation of fathers with BD in this chapter highlights a critical research gap. One of the included studies, Chen et al. (2023) conducted in China, highlights how paternal and masculine images may deter fathers with BD from discussing their condition openly with their children, driven by a fear of undermining their paternal image- a concern not notably expressed by mothers in this chapter. Other common barriers to BD disclosure, such as uncertainty about how to communicate the condition, worry about burdening children, and being impacted by mood symptoms, are shared challenges for both mothers and fathers. This is echoed by the qualitative findings of Reupert & Maybery (2009), conducted in Australia, which also underscored the importance of the self-image of 'breadwinner' and 'significant adult' to fathers' identities. In contrast, mothers with BD tended to assume the primary caregiver role and were more likely to seek support from family and friends, as they navigated their illness. Given these findings, it is evident that more research focusing on the parenting experiences of fathers with BD is needed. Such studies would help determine whether fathers have distinct support needs based on their specific parental roles, particularly considering the cultural context of the existing research.

This study's limitations merit consideration. The heterogeneity in study methodologies may shape theme generation. Additionally, the synthesis process may have resulted in the loss of nuanced context, particularly due to the overrepresentation of Western perspectives and the underrepresentation of fathers' experiences. Notably, cultural differences in managing parental

BD crises appear to be significant. In Western contexts, there is commonly a reliance on social services to safeguard the family unit, but this may amplify anxieties about potential family separation (Stallard et al. (2004); Mulvey et al. (2022); Harries et al. (2023)). In contrast, East Asian studies highlight family involvement during episodes, reflecting Confucian values prioritising family obligations (Chen et al. (2021, 2023); Liu et al. (2022); Zhao et al. (2017)). These variances underscore diverse recovery processes and support mechanisms in BD families across cultures. My research team's particular cultural perspectives may have influenced the data interpretation. For example, the lead author's East Asian values emphasise support from extended family, potentially shaping the analysis towards these norms over others. Additionally, I may have overlooked cultural nuances from other backgrounds, such as those relevant to Black participants highlighted in Mulvey et al. (2022). As a mental health clinician and parent, my focus on supporting parents with BD might have overshadowed other aspects which may have been prioritised by others (for example, child protection professionals may have brought a different perspective). To mitigate these influences, I held regular team discussions to ensure a more balanced and comprehensive interpretation, considering a broader range of cultural contexts.

Owing to insufficient data on gender-specific parenting, my analysis could not investigate the distinct parenting approaches towards sons vs daughters among parents with BD, nor the parent–child interactions with boys and girls, despite literature suggesting that such differences could significantly influence child development outcomes (Morawska, 2020). Additionally, the methods used to assess BD diagnoses in the included studies varied, with some relying on self-reports and others not specifying their diagnostic methods. The lack of structured diagnostic approaches and dimensional measures may limit the strength of the findings. Including participants who are not accurately diagnosed with BD could introduce experiences that do not genuinely reflect those of individuals with BD. This could affect the

credibility of the study and complicate the interpretation of the data, potentially weakening the overall robustness of the conclusions drawn. Lastly, the cross-sectional design of the included studies captures only a momentary view of highly variable emotional states and parenting experiences in BD, which may fluctuate over time. Moreover, interviews with young adults recalling their childhood and adolescent experiences may include interpretations influenced by hindsight. Future research should, therefore, include longitudinal perspectives from both parents and children to more accurately reflect these dynamic experiences. Despite these limitations, the study's strengths include strict selection criteria, a multidisciplinary research team, and the incorporation of comprehensive parent–child perspectives, all of which contribute to the depth and breadth of my understanding in this domain.

3.5 Conclusion

This review underscores the complex challenges faced by parents with BD and their children. The dynamic fluctuations in parenting behaviours and the evolving responses of children demand targeted, flexible, and age-appropriate interventions. Developing a comprehensive, culturally specific support framework for these families requires future research to delve deeper into the age-specific nuances that shape BD's impact on parenting. The subsequent chapters present a qualitative interview study focused on the unique experiences of families affected by parental BD with children aged 5 to 12—a critical developmental window characterised by heightened vulnerability to emerging psychopathology. Through a targeted exploration of how BD influences parenting practices, support for child anxiety, and communication about the parental condition, the findings will inform the creation of tailored support interventions.

Chapter 4: Exploring the Challenges and Support Needs in Parenting Pre-Adolescents in the Context of Parental Bipolar Disorder –A Qualitative Interview Study

4.1 Introduction

Bipolar disorder (BD) is a chronic mental health condition characterised by significant mood fluctuations, affecting over 2% of the population throughout their lifetime (McGrath et al., 2023). Although the diagnostic threshold for BD is typically not met until late adolescence or early adulthood (Bolton et al., 2021), offspring of parents with BD often display subthreshold symptoms—such as anxiety, sleep disturbances, and mood dysregulation—well before a formal diagnosis, and these early signs predict later mood disorders (Duffy et al., 2019). The pre-adolescent period—often overlooked in both research and clinical practice—represents a critical intervention window for these high-risk offspring, as it frequently marks the initial emergence of psychopathology. For instance, over 75% of individuals who develop BD experience their first mood episode before the age of 12 (Birmaher et al., 2009), and these pre-adolescents are more susceptible to mental health issues, such as anxiety disorders, compared to peers without parental BD (Tu et al., 2024). Factors such as early exposure to parental BD, maternal neglect, and heightened child emotional sensitivity further exacerbate this risk. Addressing these vulnerabilities during this developmental stage may help mitigate immediate psychological challenges and potentially reduce long-term negative outcomes, although further evidence is needed to confirm the effectiveness of specific interventions and preventive strategies. Consequently, understanding the parenting experiences of families with pre-adolescent children affected by BD appears crucial for informing interventions that could be tailored to meet their particular needs.

Qualitative studies can offer valuable insights into capturing the nuanced lived experiences of families with a parent affected by BD. However, most qualitative studies that examine the experiences of families with a parent affected by BD have focused on adjacent topics, such as postpartum relapse (Anke et al., 2019), children's perspectives (Backer et al., 2017; Campos et al., 2018; Liu et al., 2022; Venkataraman, 2011), and familial risk (Davison & Scott, 2018; Pattanayak & Sagar, 2012). Among studies exploring parenting experiences from the perspective of parents with BD, none specifically focus on pre-adolescent children. For instance, Venkataraman & Ackerson (2008) included children up to 30 years old, Tjoflat & Ramvi (2013) examined parenting experiences in relation to children under 18, and Wilson & Crowe (2009, p. 880) did not specify the ages of the children. Moreover, as parenting experiences are influenced by evolving societal norms and advances in mental health support, these older studies may no longer fully reflect the current challenges and needs of parents with BD.

This qualitative study focuses on two key questions: (1) How does BD impact parenting practices and parent–child relationships? (2) What are the specific support needs of parents with BD, and what factors facilitate or hinder access to effective support? By exploring these questions, the study aims to inform the development of tailored interventions, including parent support programmes, and lay the groundwork for future research targeting this underexplored population.

4.2 Methods

Participants and Recruitment

Eligibility criteria required participants to be 18 years or older, reside in the UK, and meet one of two criteria: (1) Parents with BD or their partners, living with a child aged 5 years or older. The parent must have been diagnosed with BD before the child turned 12 and be able

to discuss their parenting experiences during the period when their child was aged 5 to 12 and experienced anxiety problems (as part of a broader research programme). (2) Stakeholders with professional experience supporting a parent with BD who had primary school-aged children. Children were not interviewed in this qualitative study. My aim was to focus on the adults who initiate and manage parenting practices, child-anxiety support, and communication about BD within the family–namely, parents with BD, their non-bipolar partners, and relevant professional stakeholders.

Purposive sampling ensured diverse perspectives across categories: parental roles (parents with BD, 'well' partners), family structures (single, dual parents), parental gender, education (O-level to postgraduate), employment status, and BD severity (onset age, hospitalisation history, emotional wellness since parenthood (>70% or <40%, estimated as the upper and lower thirds from Kupka (2007)). Stakeholders were recruited across diverse sectors (charity, NHS, private practice), professional backgrounds (e.g., psychologists, social workers), and regions across the UK (minimum of four regions represented: Scotland, Wales, Northern Ireland, North England, Midlands, South England).

Recruitment ran from April 2022 to April 2023, combining online, organisational, and community outreach. Study invitations were shared through mental-health charities and university research-group pages on X [formerly Twitter], circulated via direct messages on LinkedIn to individuals identified through keyword searches, and emailed to UK-based voluntary and community organisations. Organisations that responded positively were sent printed flyers to display locally. Participants and partner organisations were encouraged to share an electronic flyer within their own networks, promoting snowball sampling. Regular meetings with my two supervisors monitored participant diversity and guided recruitment closure. Of 15 parents and 18 stakeholders expressing interest, 11 parents and 12 stakeholders

ultimately participated, excluding ineligible individuals (n = 2) and non-responders (n = 8). All participants who completed an interview received a £20 voucher as reimbursement for their time.

Data Collection

A semi-structured interview guide (**Supplement 4.1)** was developed based on existing literature and specific research questions. It included main questions, follow-ups, and prompts for both parents and professionals, and was pilot-tested and reviewed by Public and Patient Involvement (PPI) contributors. Participants provided written consent via email prior to the interviews, with verbal consent confirmed after reviewing the explanatory statement and addressing any questions at interview onset. A safeguarding protocol was in place to manage potential distress, including pausing interviews, assessing well-being, consulting the safeguarding lead, and signposting participants to their GP or mental health resources when needed.

I interviewed 8 parents diagnosed with BD (5 mothers and 3 fathers) and 3 partners or ex-partners (1 father and 2 mothers). As shown in **Table 4.1**, 8 of the 11 parents held graduate degrees, most were co-parenting in the same household (9 out of 11), and 9 resided in South England. All identified as White. Stakeholder participants (**Table 4.2)** included 5 charity workers or volunteers, 2 social workers, and 5 mental health professionals, providing diverse perspectives on supporting families affected by BD.

Table 4.1. Parent Demographics (N = 11)

Demographics	Number of Participants
Parent type	
Mother with BD	5
Father with BD	3

Partner of mother with BD	1
Partner of father with BD	2
Age of parent	
30-39	3
40-49	4
50-59	3
60-69	1
Age of children	
5-8	3
9-12	8
13-19	5
≥ 20	2
Child living with	
Both parents	9
Single parent	2
Ethnic background	
White	11
Non-White	0
Highest level of education	
Graduate	8
Undergraduate	1
A-level	0
O-level	1
Prefer not to say	1
Employment status	
Full-time job	5
Part-time job	2
Unemployed	4
UK region	
South England	9

• East	2
• London	2
• Southwest	1
• Southeast	4
North England	1
Northern Ireland	1
Age of onset of parental BD	
10-19	4
20-29	5
30-39	2
Past psychiatric hospitalisation	
Yes	4
No	7
Percentage of time being well since having the child	
Up to 40%	2
41-60%	3
61-80%	3
81-100%	3

Table 4.2. Stakeholder Demographics (N = 12)

Demographics	Number of Participants
Stakeholder Role	
Charity volunteer	3
Charity worker	2
Social worker	2
Clinical psychologist	1
Family therapist	1
Mental health nurse	1
Psychiatrist	2

Age of Stakeholder	
20-29	2
30-39	0
40-49	2
50-59	5
60-69	3
Gender of Stakeholder	
Female	12
Male	0
UK region	
Scotland	3
North England	1
Midlands of England	2
South England	5
Wales	0
Northern Ireland	1

I conducted all interviews, most alongside a co-interviewer (graduate student or research assistant). Interviews were conducted via Microsoft Teams (n = 21) or telephone (n = 1) and audio-recorded, except for one parent who, due to their mood, responded via written questions on Qualtrics. Only participants and researchers attended the interviews. The average durations were 86 minutes for stakeholders (range: 52 to 103 minutes) and 95 minutes for parents (range: 45 to 154 minutes), with two parent interviews split into two sessions due to scheduling constraints. All interviews were completed without any adverse events.

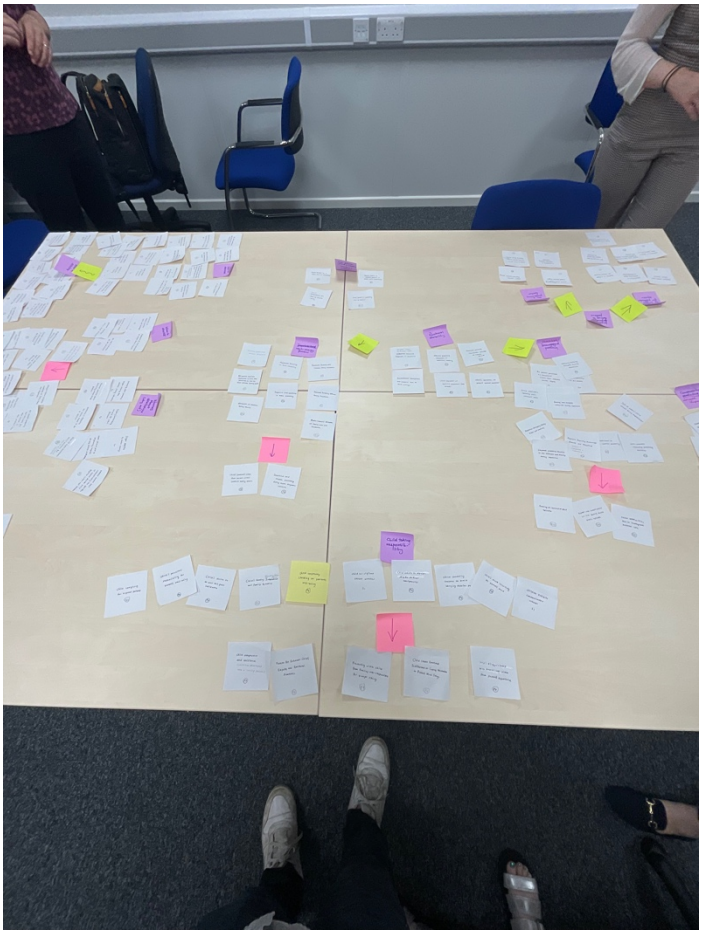
I transcribed all interviews verbatim, with co-interviewers reviewing and clarifying any uncertainties. Researchers also recorded memos during and after interviews for documentation and analysis. The team regularly debriefed and explored emerging themes in meetings.

Data Analysis

Reflexive, inductive thematic analysis, following Braun and Clarke (2021), was employed to identify shared patterns of meaning and generate codes and themes. Grounded in an essentialist/realist framework, the analysis aimed to capture the lived experiences and support needs of parents with BD, driven by the dataset. I immersed myself in the data by replaying recordings and transcribing dialogues, ensuring confidentiality by removing identifiable information. NVivo (Version 12) was used for data organisation and coding. Initial line-by-line coding considered context and participants' overall views, supported by field notes. Codes were grouped into themes and underwent iterative review until distinct themes emerged. Feedback from the wider research team—including a PhD student, a research assistant, and my two supervisors—ensured themes remained relevant and robust.

To guide recruitment, I adopted the concept of "information power" (Malterud, 2016), which emphasises rich, relevant data to address research questions. Diverse insights were gathered to ensure the data sufficiently covered core issues without exhaustive exploration of all themes. Information power was assessed through sample specificity, dialogue quality, and alignment with the study's aims, providing adequate depth for robust conclusions. The endpoint for data collection was determined in consultation with my supervisors.

Figure 4.1. Collaborative Thematic Analysis Session: Grouping Codes into Themes through Iterative Team Discussions



Reflexivity Statement

In conducting this thematic analysis, I drew on professional and personal experiences. As a child and adolescent psychiatrist, my clinical work with parents with mental illness and their children provided insights into their challenges. Additionally, my personal experiences of the impact of BD on family dynamics shaped my understanding. Our research team combined academic and practical expertise as clinicians and researchers specialising in mood disorders and child anxiety. The team members, including myself, were parents of children ranging from newborns to young adults, allowing incorporation of diverse parenting experiences into the analysis. Our cultural diversity—spanning East Asian, Middle Eastern, and Western

perspectives—further enriched our approach. Regular team discussions helped critically reflect on and integrate these perspectives, ensuring a balanced and nuanced interpretation of the data.

Ethical Considerations

The study was approved by the Medical Sciences Interdivisional Research Ethics Committee at the University of Oxford (reference: R76164/RE007). Three service users (two parents with BD and one partner) acted as PPI contributors, reviewing research materials including advertisements, the participant information sheet, the assessment form, and the topic guide.

The safeguarding protocol was implemented to manage potential participant distress during interviews. This protocol was activated once when a parent became visibly distressed while discussing their child's anxiety and expressing guilt about their BD. The interview was temporarily paused to provide support, assess risks, and ensure the participant's well-being during and after the session.

4.3 Results

In total, 79 refined codes were identified from participants' rich narratives. These encompassed multiple respondent perspectives: 64 codes shared by both parents and stakeholders, 4 unique to parents, and 11 specific to stakeholders. Thematic analysis yielded five overarching themes subdivided into 15 subthemes, detailed in **Supplement 4.2**. The themes included: Theme 1 (Parenting Inconsistencies; 16 codes), Theme 2 (Guilt and Anxiety; 16 codes), Theme 3 (Parent Role Shifts; 25 codes), Theme 4 (Practical Strategies; 11 codes), and Theme 5 (Restoring Parent Role; 11 codes). Findings were reinforced through extensive triangulation; notably, 13 of 15 subthemes incorporated input from all participant roles—

mothers and fathers with BD, non-bipolar partners, mental health/social workers, and charity workers—enhancing depth and reliability.

Research Question 1: How does BD impact parenting practices and parent–child relationships?

Theme 1: Mood-Driven Parenting Inconsistencies

Participants suggested that mood symptoms of BD may drive parenting inconsistencies in boundaries, engagement, and emotional regulation. Discipline appeared to shift between overly relaxed and overly intolerant, while parental engagement could fluctuate from positive involvement to disengagement. Emotional regulation challenges were seen to create unpredictable reactions, prompting children to become "parent watchers," heightening uncertainty and straining relationships. These inconsistencies, combined with co-parenting discrepancies, can destabilise the parenting environment and undermine predictability and emotional security.

Subtheme 1.1: Parenting Inconsistency in Boundary

Parents and professionals noted that mood swings affected discipline practices within the same parent. During manic phases, discipline may shift unpredictably, confusing children. A father shared: "*Rules and expectations changed because [the mother with BD] was manic… she suddenly announced that [a forbidden film] was totally fine … it was unsettling for the kids*" (P10). Conversely, depressive phases were linked to reduced capacity to enforce rules. A social worker observed: "*In a low phase… [parents with BD] haven't got the energy to fight with [kids]… physically can't say no*" (S10). Therefore, disciplinary boundaries may fluctuate with mood swings, as another parent noted: "*he [the father with BD] will have phases where he's much more cautious, like… don't climb on that tree in case you fall down. And then he might have phases where he would be more liberal in what he allowed the children to do*" (P09).

Parental reactivity appeared to be similarly affected. Irritability or anxiety during depressive phases may heighten negative reactions. A father explained: "*I tend to become less tolerant of [the kid's] behaviour… I will expect some kind of affirmative action when I speak with him… when it doesn't happen, I would get more upset than usual*" (P01). During manic phases, heightened irritability was reported to further reduce tolerance, with the same father describing himself being "*more mentally aggressive… much less tolerant of [the son's] poor behaviours*" (P01). Such variability creates "*inconsistency and the unpredictability,"* leaving children *"not really knowing what you need to be doing at any particular time,*" as a social worker highlighted (S09).

Both parents and professionals also shared discrepancies between the parenting approaches of a BD parent and a non-BD co-parent can add another layer of inconsistency. A mother described this challenge: "*the biggest challenge is the discrepancy in behaviours of both parents… What comes with that is a very different way of seeing the world and what the rules of that world should be*" (P03). A psychiatrist further elaborated on this tension: "*Sometimes patients also talk about 'I'm the soft one'… because I've been ill, I understand anxiety, I don't push them to go to school. Whereas partner may say, no, this is ridiculous… they must do it… a consistent approach from both parents… would be the most helpful thing for the child*" (S06). Overall, participants described how these mood-driven fluctuations and co-parenting discrepancies could destabilise parent–child boundaries, making it harder to establish a predictable and supportive environment, which in turn could strain parent–child relationships and hinder children's emotional security.

Subtheme 1.2: Parenting Inconsistencies in Engagement

Both parents and professionals described how BD may influence parental engagement, with depressive and manic episodes introducing distinct challenges in parent–child interactions.

During depressive episodes, low motivation and emotional withdrawal were perceived to hinder parents' ability to actively engage with their children. A psychiatrist noted: "*A lot of them would say… 'I lack motivation. I find it hard to be interested in my children... All I can do is go through the motions, get them tea, supervise them watching the telly, and get them to bed... I should be a better parent*" (S06) For some, even listening to their children may feel overwhelming. One mother with BD shared: "*When I am experiencing depressive symptoms… I may find it difficult to fully listen and engage with my younger two children*" (P11). Conversely, a mother with BD described how recovery from depression can lead to a resurgence of parental engagement, fueled by restored self-confidence and energy: "*when my self-confidence and energy level come back after a period of depression… I can see that [the son] will start to feel more enthusiastic about things… I think he enjoys periods when I'm well, active, energetic, and organising things for him*" (P02)

Parents and professionals viewed manic or hypomanic episodes as introducing a more complex picture, with parental engagement ranging from positive involvement to inappropriate or disengaged interactions. Some parents may become more imaginative and actively involved, creating joyful experiences for their children. A charity worker observed that parents with hypomania are often "*much more fun… 'let's go out… do these crazy things'… the kids love that*" (S07). However, increased energy during manic episodes sometimes seemed to lead to either inappropriate engagement or disengagement. A social worker described a mother with BD who "*treated the daughter… like a little sister, rather than as a child… her daughter was five or six… trying to put lipstick on her, and makeup on her, and go out and say… 'we're going out clubbing tonight'*" (S10). Furthermore, mental health professionals observed that mania could create challenging situations that potentially impact children's safety. For instance, a social worker recounted a case where a mother in a manic state disengaged from her children and sought connection with risky individuals: "She would connect sometimes with people that

were quite risky, [who] would then be around the children… there were concerns about potential abuse" (S09).

Subtheme 1.3: Parenting Inconsistency in Emotional Regulation

Parents and professionals perceived that parental inconsistencies driven by mood instability left children struggling to interpret and adapt to their parents' shifting behaviours. A psychiatrist observed: "*One of the difficulties with having a parent with bipolar disorder is the unpredictability of those big episodes... also the mood variability in between… that's very difficult for children to have that kind of instability*" (S06). A mental health nurse elaborated on children's experience, noting: "*hang on a minute, it was all right the other day, why isn't it all right now?*" (S08). This emotional unpredictability was felt to force children to become highly attuned to their parents' moods, adopting a role described as "parent watchers." One mother with BD explained: *"[My daughter] has grown up very sensitive to mood swings, having a mother who isn't always consistent, which is hard… she can often tell when she comes in a room, sometimes she's like 'what's happening?... Have I done something?'... she'll definitely pick up on the irritability going up, and she can tell when I've got less energy when my mood's going down'* (P08). Another mother with BD added: "*[my daughter] is really noticing… if I'm feeling crappy… she doesn't know how to react to that… I think that's really difficult for her because she's not having any constant like emotional parent*" (P06). Moreover, emotional instability can undermine parents' abilities to support their children effectively. One mother recounted how her agitation during a manic episode led to her concerns about her daughter's bullying being dismissed: "*When I get agitated, my illness does make me look more emotional… People can start to sideline me and say it's my illness… when… trying to really back your daughter… everyone shut down on me*" (P08).

In contrast, parents specifically viewed improved emotional regulation as a pathway to healthier parent–child relationships. A mother reflected on her ex-partner's improved parenting after years of mental health stability: "*The last six years… have been much more consistent [with] his mental health stability. And he's been a much better dad for it. The girls have a much, much better relationship with him*" (P03). This highlights how emotional stability was perceived to enhance parent–child interactions.

Theme 2: BD-Related Reflective Emotions

Participants described how BD-related emotions, particularly guilt and anxiety, intricately shaped parenting practices. Guilt, rooted in perceived past impacts, and anxiety, focused on future risks, may motivate adaptive self-reflections as well as maladaptive responses. These emotional responses can be further influenced by mood state, as depressive episodes may intensify guilt and anxiety, while manic episodes can delay recognition of parenting impacts.

Subtheme 2.1: Guilt-Induced Reflection on Past Parenting

Both parents and professionals reported guilt associated with BD influences parenting, driving both challenges and adaptive efforts in the parent–child relationship. Two key areas were perceived where parents with BD expressed guilt: (1) Observing Problems in Children: Some parents felt responsible for their children's emotional or behavioural difficulties, attributing them to their condition. A mental health nurse noted: "*They'd feel quite guilty about how the children are… feeling anxious or not feeling right*" (S08). This guilt may intensify when parents perceive a genetic link to their child's struggles. One father with BD expressed: "*I still feel guilty that…something genetically I passed on*" (P05). (2) Limited Caregiving during Symptomatic Phases: Guilt was linked to a perceived reduction in caregiving capacity

during episodes of illness. A psychiatrist explained: *"[parents with BD] mentioned obviously feeling guilt about… times when they've been depressed or manic... is my illness influencing them? Is it my parenting?*" (S06). This guilt **a**ppeared particularly pronounced during hospitalisations when parents were absent. A peer group facilitator noted: "*[parents with BD] blame themselves for… not being able to support their children… there would be a lot of kind of self-blame after being hospitalised*" (S05).

Beyond its emotional burden, professionals specifically highlighted that guilt could also serve as a motivator for positive change, prompting self-reflection and efforts to improve parenting. A charity worker noted: "*They feel guilty… like… 'How can I continue to be a good parent in this situation?*'" (S03). These reflections suggest that guilt stemming from BD may shape parenting approaches, potentially influencing boundaries, caregiving consistency, and efforts towards self-improvement within the parent–child relationship.

Subtheme 2.2: Anxiety-Driven Future-Oriented Parenting

Both parents and professionals described parents with BD as experiencing anxiety about how their condition might affect their children's future, shaping parenting in both challenging and adaptive ways. Key concerns included anxieties around balancing their own mental health with caregiving. A peer group facilitator observed that parents with BD may feel "*anxious about… how [can] I support someone when I myself need support*" (S04). Long-term concerns focused on genetic risks. A mother with BD shared: "*I would worry that he might also be prone to certain episodes of depression, anxiety, possibly bipolar disorder himself*" (P02). Professionals specifically added other sources of parental anxiety: fears of future episodes disrupting their children's lives. For instance, a psychiatrist noted parents with BD worry about "*another episode happening, and if it happens suddenly, then what happens to the child? Are they going to go through the same thing again?*" (S12). Anxiety about social

services intervening was also prominent, as parents feared losing custody. A charity worker explained: "*one of the key questions we often get asked by young parents is, oh God, a social service is going to rush in and take my child away just because I'm having an episode?*" (S03).

Both parents and professionals further indicated that these anxieties—whether about future episodes, social services, caregiving challenges, or genetic risks—contribute to parents' emotional burden and might lead to hypervigilance, where parents with BD closely monitor themselves and their children for potential issues. One father with BD admitted to being "*hypervigilant about what [children's] mental health is going to be like in the future*" (P05). This heightened awareness could inadvertently increase children's anxiety. A psychiatrist noted: "*the anxieties of a relapse… there's a mirror image in the child. Often anxiety that children portray are reflections of what they pick up from the parents… in their demeanor, in their conversations*" (S12). Conversely, this anxiety could also motivate proactive parenting efforts. A father whose partner has BD shared: "*If you're the parent with bipolar, you feel anxiety that your condition might be passed on to your child, and therefore whatever you can do to help them manage their mood you want to do*" (P10).

Subtheme 2.3: Mood-Dependent Perception of Parenting Impacts

Building on earlier themes of guilt and anxiety regarding past and future parenting, this subtheme explores how these perceptions may shift depending on parents' mood states, influencing their awareness of parenting impacts. Firstly, both parents and professionals indicated that during depressive episodes, heightened awareness of parenting impacts was perceived to intensify feelings of guilt and anxiety, creating a downward spiral that could exacerbate depression. One mother with BD captured this vulnerability: "*When I feel down, I feel like the worst mum to ever have lived because I'm not doing all of these things*" (P06). Professionals also specifically noted that parental anxiety about their children's well-being

became more pronounced during these phases. A family therapist described a father being "*in constant anxiety regarding any specific behaviours his son has manifested… [The son] got into a fight in school… that got my patient very worried, especially… when he's having severe depressive mood*" (S01). A mental health nurse added: "*the more guilt that [a mother with BD] felt could push her down, you know, the downward spiral*" (S08).

In contrast, professionals observed that during manic phases, reduced self-awareness might cause parents to overlook the consequences of their behaviours on their children. A psychiatrist observed: "*when people are manic, they obviously don't see any problems in their own parenting style*" (S12). After manic phases subside, parents specifically noted experiencing delayed guilt and anxiety as they regained awareness of their actions' impact. One mother with BD described this emotional burden: "*The highs are not nice some days… I'll snap at her, and it really isn't anything she's done… I've often forgotten what I've said… '[my daughter] shouldn't have to go through this*'" (P08). This post-manic reflection appeared to complicate both their parenting practices and emotional recovery, illustrating how mood-dependent perceptions could significantly influence parents' experiences.

Theme 3: Parent Role Shifts due to BD

BD was described as disrupting caregiving roles, prompting adjustments in parents' approach and across the family system. Parents with BD navigated a perceived difficult balance between self-care and parenting responsibilities while managing their mental health. During episodes, protective measures can reduce parental involvement, with partners, extended family, and even children stepping in to maintain family stability. After an episode, parents with BD sometimes appeared to struggle with reclaiming their caregiving role, facing diminished confidence and potentially strained family trust.

Subtheme 3.1: Balancing Dual Identities as Parent and Patient

Both parents and professionals described parents with BD as facing the challenge of balancing caregiving responsibilities with the need for self-care in managing their condition, employing various strategies to navigate this tension: Some parents were seen to prioritise their children's needs above their own well-being, potentially sacrificing self-care. A psychiatrist noted: "I*f they have to do one task in their lives, it will be childcare… they might stop working, they might stop going out to visit friends, they might stop indulging in their hobbies, but they actually would try their level best... to make sure that a child is fed and is going to school on time, and their clothes are washed*" (S12). Conversely, some parents described prioritising self-care, recognising its importance for maintaining stability and setting healthy boundaries for their children. A mother shared: "*it is a good idea for us parents to have a hobby… teaching parents the importance of having time for their needs is also important. The more time you spend on your needs the better the balance is... to not only stay well but be actively showing your children that their parents are people too*" (P11). Similarly, a father described using self-monitoring and physical space to manage his emotions and reduce impacts on his child: "*I will then walk away or go outside… because then rather than get angry with him, withdraw myself from the situation*" (P01). Parents specifically noted adapting their routine to align self-care with caregiving. One mother described how her partner with BD adapted daily routines: "*Because of the way his depression plays out… by the afternoon or evening, he's fine. So he can actually do stuff and engage properly with the children by then*" (P09). These approaches were seen to reflect the ongoing tension between self-care and caregiving, as parents strive to balance their dual identities as caregivers and individuals managing BD.

Both parents and professionals further indicated that childcare and self-care were perceived as interrelated, creating a dynamic, two-way relationship where each reinforces the other. As noted in Theme 1, emotionally stable parents were described to provide more consistent care. Conversely, parenthood appeared to motivate some individuals to actively

improve their mental health. Children were seen as a powerful motivator, as one mother with BD reflected: "*Having a child… you have a reason to want to step up and overcome those days where you think you can't*" (P04). The desire to be a good parent can also encourage treatment adherence. Another mother described how her ex-partner managed his BD to maintain access to his children: "[*the father with BD]... was very much more encouraged to take better care of his mental health... without his agreement in taking his medication regularly… he wouldn't have been able to have access to the children at all… it serves him well to… have a good relationship with his GP and mental health services so that he's able to take on his parenting responsibilities*" (P03). Positive caregiving experiences were also described as enhancing parents' emotional well-being. A social worker noted that even small parenting successes can be uplifting: "*Those little wins... [like] they've cleaned the kitchen so that they could do a bit of baking with their daughter if they want to... actually can be quite valuable and quite lifting*" (S10). Ultimately, parenting was seen to foster psychological growth and emotional fulfilment, beyond just self-care. This interplay can help parents with BD navigate their dual roles as caregivers and individuals managing their condition.

Subtheme 3.2: Reallocation of Caregiving Roles to Sustain Family Stability

Both parents and professionals described family members as expressing deep concern about the impact of parental mood episodes on children and taking protective actions to ensure their safety. A psychiatrist described families experiencing a tense atmosphere, where relatives felt they were "*walking around on eggshells because the child might have witnessed aggression, maybe an overdose… violence within the family… mother or father being taken off to hospital under a section*" (S12). In some cases, families took decisive action to remove children from volatile environments. A father recounted: "*her [the mother with BD] behaviour really was very aggressive, physically violent. The kids witnessed some of that. And I removed them from the situation as soon as I could, which involved driving them to be with my mum*" (P10). In

more extreme situations, safeguarding children can lead to family separation. One mother prioritised her children's safety, explaining: *"[The father's BD episode] did actually lead to us splitting up because it got quite dangerous because of the lack of support that he was getting from mental health services left him incredibly ill… we had to kind of remove ourselves from that situation*" (P03). When safety concerns escalated, social services were sometimes involved. A psychiatrist explained: "*Worst case scenario, social service gets involved because something dangerous has happened during the manic episode… it means losing custody of the child*" (S12).

Parents and professionals further indicated bipolar episodes might require reorganising caregiving roles to prioritise children's wellbeing. One mother with BD shared how her partner stepped in as primary caregiver during her mood episodes: "*On really bad depressive days, my husband takes over parenting, which is great as it means my children will always have a parent ensuring they are well looked after*" (P11). A father with BD highlighted how extended family also critically supported family stability during his depressive episodes: "*I wasn't doing any parenting at all… I was in bed. I couldn't see the point of living… having the grandparents 300 yards up the road was a real boon. So [children] would end up going to the grandparents*" (P07). However, a mother whose partner has BD acknowledged experiencing significant emotional and physical strain when stepping into caregiving roles: "*my energy levels were just kind of drained through [his depressive] period*" (P09). Additionally, shifts in caregiving roles may indirectly influence children. A charity worker noted: "*I think if the behaviour of the person with bipolar is impacting the partner, then the partner's behaviour might impact the child*" (S03). These findings highlight that while reallocation of caregiving roles was considered crucial to maintain family functioning, it may also create challenges for caregivers and potentially affect parent–child relationships.

Subtheme 3.3: Children Assuming Caregiving Roles in Response to Parental BD

Both parents and professionals observed that during parental bipolar episodes, children may take on caregiving responsibilities beyond their developmental capacity. Many children appeared to become more self-sufficient. One mother with BD observed: "*I am kind of forcing them [children] to be a bit independent… more mature… because they have to be able to do the stuff without me*" (P06). Beyond managing their own needs, children may also assume emotional caregiving roles, offering support to their parents. The same mother shared: "*when I'm really really sad, he'll try and comfort me… a hug from him when I'm feeling crap… make me feel better*" (P06). In families lacking external support, children sometimes took on practical caregiving tasks. A psychologist recounted one child's experience: *"she always had to look after mum [with BD]… there's a lot of looking after to be done*" (S11). In critical situations, children may even assume emergency responsibilities. One mother explained: *"*I *don't think I'd still be here if I didn't have [my son] … he's like the only man in the house… he's had to take me into hospital… he rang the crisis line and asked 'can someone come and help my mum?'…. he packed my bag, and I went*" (P04). Some children also took caregiving roles for siblings. A social worker noted: "*There was no dad around… [children] would then take on the parenting role… start to take care of the younger siblings*" (S09). The intrinsic drive to help their parents was seen to stem from a sense of duty or desire to fix the situation. A mother whose ex-partner has BD reflected: *"[the daughter] has always been one for 'oh, poor daddy, it's not his fault… I must help fix him and make him feel better*' *… for many years, she thought that had she worked harder, she could have fixed our relationship, and we would never have had to part company*" (P03). While these caregiving efforts demonstrated children's adaptability, a charity worker noted they could cause significant emotional strain: "*the worst scenario is your child becoming your carer… it makes them feel that responsibility… this is a terrible thing… 'is she going to get much worse?'… 'is she going to die?'… Every time you go*

out, they might be worried about you" (S07). These reflections highlight that while children's caregiving behaviours may provide critical support during parental episodes, they may also experience lasting emotional impacts, especially when resources or guidance were lacking.

Subtheme 3.4: Obstacles to Restoring Parental Roles Post-Episode

Both parents and professionals suggested bipolar episodes can undermine parents' confidence in their ability to care for their children and trust in their own emotions. For example, a mental health nurse described a mother who, after a manic episode, *"began to think that she was no good as a mum… was unable to look after the children, and that she wouldn't be able to give them a proper lifestyle*" (S08). Moreover, a psychiatrist noted specifically that parents with BD may question the authenticity of their emotions, fearing these could signal an impending episode: "*How do I know when I feel happy or sad what that emotion is? … My child does something lovely at school. I want to celebrate… We're having fun. And then I think, oh, my goodness, am I too up? Is this pathological?"* (S06).

Both parents and professionals reported that family dynamics may shift during bipolar episodes, with others stepping in to take over caregiving roles, sometimes diminishing trust in the caregiving ability of parents with BD. This can complicate parents' reintegration into the family and their ability to reclaim their parental role. A father described how this dynamic left his partner feeling excluded: "*[The mother with BD] can feel left out of the family. Because the rest of us have had this very intense period of coping without her… the fact that the kids tend to come to me for emotional stuff… that upsets her*" (P10). Even after the episode subsides, other family members may continue to dominate caregiving, further sidelining the parent with BD. A psychiatrist noted: "*Somebody's been in hospital six weeks being manic… by the time they come out, the other parent has taken on the role… not being allowed to parent at all… other people jump in, 'No, you don't have to do this. We'll do this for you"*" (S12). A lack of

understanding within the support network may further isolate and hinder reintegration. One mother described: "*[The family] won't talk about [BD]. They don't acknowledge it, they don't understand it, and it's left him [the father with BD] really ostracized and really alone*" (P03). These obstacles—diminished self-belief, caregiving role shifts, and a perceived lack of understanding and trust—highlighted the complexities involved in restoring parental roles post-episode.

Research Question 2: What are the specific support needs of parents with BD?

Theme 4: Mitigating BD Impacts on Parenting during Episodes

Participants highlighted three key areas needed to mitigate the impact of BD on parenting during mood episodes: optimising BD treatment and addressing treatment barriers, such as medication side effects perceived to hinder parenting; facilitating access to practical resources and timely assistance with daily tasks and episode-specific parenting strategies; and fostering collaborative family support networks to enhance communication and problem solving.

Subtheme 4.1: Optimising Bipolar Treatment for Effective Parenting

Both parents and professionals highlighted that effective treatment for BD episodes might help mitigate parenting impacts. Consistent medication management was considered key to restoring parents' caregiving abilities, with one father with BD sharing: "*Medication makes me more stable… low or high episodes are far more infrequent and not as extreme. So in the sense that I'm more stable, that it's less likely that anything happens that affects [parenting]*" (P01). However, medication side effects were seen as challenging effective parenting. One father described his partner's difficulties: "*When she was on [medication], she found it impossible to get up… like a phantom presence at breakfast… she just didn't have the ability to look around and see what other people needed and interact with people*" (P10). Professionals

specifically emphasised addressing side-effects through medication adjustments as an important support need. A psychiatrist explained: "*If somebody is… struggling because of [medication] side effects… I would look at reducing the medication or changing it … sometimes you've got to balance out the risks versus benefits*" (S12). While psychotherapy was noted as lacking "side effects" associated with medication, the time and energy commitment required can potentially compete with parenting responsibilities. Thus, parents and professionals pointed out that flexible care arrangements, such as home or online treatment, helped them stay connected with their children while managing their mental health. A mother with BD shared: "*It was decided by all the various professionals that I was best treated at home with the home treatment team, which was a relief as I didn't want to be away from my children*" (P11). These findings underscore participants' views on the need for tailored treatment approaches promoting parental stability while addressing barriers such as medication side effects, potentially benefiting children's mental health.

Subtheme 4.2: Facilitating Resource Access to Practical Family Support

Both parents and professionals highlighted the need for practical parenting support to address challenges associated with BD. A psychiatrist noted parents' difficulties finding accessible resources and guidance to manage their children's needs alongside their own mental health: "*Parents are sort of crying out for [parenting] strategies. 'what do I say?', 'what do I do when my child does X?', 'how do I respond?*'" (S06). A father with BD similarly described the effort required to access support for himself and his child as "*just a battle… you have to fight for everything. The school, for healthcare, for both of us*" (P05). Limited support systems were perceived as particularly challenging for single-parent households, potentially making it harder to balance parenting and illness management. Reflecting on her limited family support, a single mother with BD noted: "*it's difficult when you've got bipolar… especially because my mum's elderly, and he [the son] is like the only man in the house… he has got stresses that a*

child at his age shouldn't have" (P04). A psychologist suggested volunteer organisations as a parenting support resource: "*I recommend… volunteer organisations that teach and offer parenting training to parents [with BD] … the [NHS] Trust can't always meet the demand*" (S11). Practical assistance with daily routines during a parent's episode was also perceived as essential for family stability. A social worker described how support workers could assist: "*Support workers would have been taking [her] daughter to school… not taking over [the parent role] but prompting, guiding, doing that professional friend thing… helping the young woman tidy up… think about what might be going on for dinner… try and stimulate getting her down if she was high... or getting some energy if she was very low*" (S10). These findings suggest that providing parents with BD with access to specialised parenting resources and practical support, especially during episodes, may help maintain family stability.

Subtheme 4.3: Promoting Family Collaboration in Managing BD-Related Challenges

Both parents and professionals highlighted the value of family-based approaches that address the entire family unit, rather than focusing solely on the parent with BD, to support parenting during episodes. For instance, a mother whose partner has BD described family therapy as "*the best intervention we've had" because it addressed "the difficulty that the environment has with the person who has bipolar*" (P09). Similarly, a father whose partner has BD emphasised the importance of family-oriented care during hospitalisation: "*How do you safely involve children and allow them to see their mum [with BD] when she's in hospital*" (P10). Enhancing communication between parents with BD and other caregivers was identified as crucial. A charity worker suggested couples could benefit from "*a good conversation around what is the [BD] impact for them as a parenting couple*" (S03). Such communication may facilitate shared parenting responsibilities, as a mother with BD described: "*If I'm feeling crap, I message [my partner] the routine, every time, just so it's like laid out bit by bit*" (P06). Finally, empowering other caregivers to effectively support the child was viewed as vital. A father

emphasised partner involvement as "*key to support… if you're… offering something beneficial to the kids… everything should be offered to both [parents]*" (P10). A peer group facilitator further highlighted fostering collaboration, suggesting caregivers avoid distinctions like "*I am a normal one and you are the one with a diagnosis*," instead "*working on it as a team and seeing what works for everyone*" (S05). These strategies suggest collaborative family-based interventions could improve caregiving dynamics when managing BD.

Theme 5: Supporting Parents to Restore Parental Roles

Participants described parents with BD as facing unique challenges potentially influencing their confidence and connection with their children. They highlighted the value of a strengths-based, empowering approach centred on self-acceptance, validation, and reframing parenting through a positive lens. This approach was felt to help reduce feelings of guilt and shame while potentially supporting parental confidence. Additionally, participants shared that connecting with others with similar experiences—through peer communities or supportive family relationships—can help overcome isolation and rebuild trust.

Subtheme 5.1: Strengths-Based Guidance for Parents with BD

Both parents and professionals indicated the need for practical guidance to help parents with BD navigate key parenting concerns, including "*what the genetic links are*" (P02), "*how to talk about the diagnosis to their children*" (S04), and "*do my children need therapy*" (P09). However, the delivery of guidance may be as important as the content, ideally empowering parents rather than reinforcing negative self-perceptions. Participants identified two key principles for providing effective, strengths-based guidance.

Promote Self-Acceptance without Reinforcing a "Sick Role"

Promoting self-acceptance was highlighted as key to alleviating parental guilt, helping parents recognise their efforts despite the challenges of BD. A peer group facilitator reflected: "*To cope with [guilt] the ways that… my bipolar is not my fault. I do my best to support my loved ones… You're not to blame*" (S05). However, a psychiatrist emphasised balancing support with autonomy in parenting, warning that overemphasising a parent's need for care could undermine their confidence in supporting their child, noting: "*It has to be a delicate balance in not making them feel too cared for or too unwell, in that it emphasises their sick role, that they have this sense of, goodness me, I'm this really sick person who needs all these professionals involved...I need to be supported. And then what do I do to support my child?*" (S12).

Adopt a Non-Judgmental and Empowering Approach

Creating a non-judgmental environment validating parental strengths was seen as essential for fostering confidence. A psychiatrist emphasised that guidance should be offered sensitively, avoiding criticism: "*Navigating that difficult path between offering guidance… without making the person feel that they did it terribly before… there can be no element of judgment*" (S06). Reframing parenting through a strengths-based lens was highlighted as potentially empowering parents. Rather than focusing on perceived shortcomings, interventions could emphasise how parents best support their children. A mother with BD shared: "*It's just about how to help the child, so putting the emphasis on helping the child, not on the parenting thing wrong*" (P08). By fostering self-acceptance, avoiding pathologisation, and adopting a strengths-based approach, interventions could help parents with BD build confidence and develop effective parenting strategies.

Subtheme 5.2: Strengthening Support through Shared Experiences

Both parents and professionals described experiencing societal and familial distrust towards their parenting abilities, which they felt contributed to social isolation and sometimes limited their engagement in parental roles. Peer support was perceived as vital in addressing these challenges, providing a sense of normalcy and connection through shared experiences. A peer group facilitator reflected: **"***Community really works because of that shared experience and normalising your experiences… there's this shared... really just empathy based on the shared experience of, oh, I know how this feels*" (S05). Within these peer spaces, parents found validation, learning opportunities, and mutual encouragement. One parent shared: "*The potential for learning from other parents and having the encouragement of thinking, okay, it's not just us. Other people struggle with this*" (P10). This shared understanding was felt to reduce isolation and potentially foster a greater sense of empowerment in their parenting journey.

Parents and professionals also highlighted the importance of trust and support within families for parents with BD. Professionals specifically reflected on the role of a supportive partner, suggesting that belief in a parent's capabilities and understanding of BD could strengthen relationships. A psychiatrist explained: "*When they have a supportive understanding partner who believes that their capabilities are not lost and they get what bipolar disorder is… the love survives over there... I've seen bipolar be the test of just how strong a relationship is*" (S12). Some participants noted that psychoeducation for caregivers played a key role in fostering hope and trust by addressing fears and uncertainties. The same psychiatrist emphasised the importance of knowledge and reassurance in managing concerns: *"[Caregivers] need the knowledge and the facts… So that reassurance of… episodes just don't happen all the time… your partner is now with a team… you can do work on early relapse markers*" (S12). Creating positive family memories and facilitating meaningful parent–child interactions were also highlighted as important strategies. A social worker stressed the importance of fun activities, explaining, *"[children] need the time to be able to do fun stuff*

with [parents with BD] that isn't about caring… build some good memories of childhood, not memories of an ill parent" (S10). Similarly, a father described the impact of one-on-one time in strengthening the bond between his partner and their children: "*I… give specific things for the kids to do with her [the mother with BD] or not be as available and suggest that [the kids] go to her… we realised that [the mother] having one-to-one time [with kids] … that seems to be really important*" (P10). Together, these strategies may help parents with BD navigate trust challenges, potentially fostering stronger and more connected family relationships.

Comparative Analysis of Thematic Contributions

Parent-only perspectives are grounded in personal, emotional, and practical experiences, focusing on how BD shapes their relationships with their children and their efforts to adapt. They highlight internal processes like guilt, emotional regulation, and routine adjustments to balance caregiving with BD management. Conversely, professional-only perspectives broaden this scope by incorporating systemic, clinical, and relational insights, identifying risks (e.g., safety concerns, custody fears), broader emotional patterns (e.g., anxiety about future episodes, emotional authenticity), and the need for professional interventions (e.g., medication adjustments, family psychoeducation). Together, these complementary viewpoints provide a nuanced understanding of how BD affects parenting, blending lived experiences with clinical and societal dimensions.

4.4 Discussion

This study explores the interplay between parental BD, parenting challenges, and support needs in raising pre-adolescent children, a critical developmental stage when psychopathology may first emerge in BD. Participants described parental BD as impacting parents on three levels: (1) mood symptoms can directly affect parenting ability and style, shaping engagement with children, boundary-setting, and emotional regulation; (2) concerns

about BD's impacts on children, such as reduced parenting capacity during episodes or genetic risks, may evoke guilt and anxiety in parents. These emotions can intensify mood symptoms but can also motivate proactive support for their children; and (3) mood episodes can undermine confidence and trust in parental roles, often shifting responsibilities to partners or family members. Rebuilding trust and confidence was seen as important for parents to reclaim their roles. When mood symptoms affect parenting, families were identified as needing comprehensive support, including access to effective treatment, resources to address family needs during episodes, and targeted support for partners and caregivers. To address parenting challenges related to the emotional burdens and shifting roles of BD, participants emphasised the need for strengths-based, empowering support to foster self-acceptance and confidence. Shared experiences through peer groups were also highlighted as helping to reduce isolation, while family involvement was seen as key to restoring trust and strengthening bonds.

Mood and functional fluctuations are hallmarks of BD, distinguishing it from unipolar depression or schizophrenia (Angst et al., 2003; Bartoli et al., 2024; Flaaten et al., 2023; Proudfoot et al., 2014). Chapter 3's qualitative synthesis indicates how these fluctuations can frequently undermine parental consistency and predictability (Tu et al., 2025). This study extends this by demonstrating that mood variability can drive parenting inconsistencies across multiple parenting domains, affecting boundaries, engagement, and emotional regulation—and that, while parental behaviour may fluctuate with mood episodes, the resulting inconsistency often feels constant in children's daily lives, as reflected in their need to become "parent watchers." These impacts may even reach clinical significance, as Iacono et al. (2018) demonstrated that low parental structure (e.g., lack of organisation and predictability) mediates the relationship between having a parent with BD and increased internalising (e.g., anxiety, depression) and externalising (e.g., aggression, rule-breaking) symptoms in middle childhood. Future research should not only establish clearer operational definitions of parental

inconsistency but also quantify the relationships between mood swings, parental inconsistency, and child mental health in the context of parental BD. Additionally, it is essential to investigate which aspects of mood swings—such as amplitude, frequency, or the nature of emotional states—are most critical in influencing these outcomes.

Another key finding of this study is the role of BD-related reflective emotions, particularly guilt and anxiety, in shaping parenting practices. Previous research highlights that parents with BD often experience guilt over irritable or withdrawn interactions with their children (Wilson & Crowe, 2008) and worry about the genetic risks (Davison et al., 2018). Building on these findings, this study explores how these emotions impact the parent–child relationship. Guilt and anxiety fluctuate with mood, consistent with prior research showing heightened symptoms during depressive (Highfield et al., 2010; Vázquez et al., 2014) and post-manic phases (Bin et al., 2014). While these emotions can intensify parental distress, they may also motivate more conscientious caregiving. Leach and Cidam's (2015) meta-analysis supports this dual nature, showing that self-conscious emotions like guilt and shame can drive self-improvement and prosocial actions when challenges feel reparable or when social image can be restored. Therefore, targeted interventions that encourage parents to reflect on how their children perceive their mood symptoms and foster open communication about their BD with their children are crucial for transforming these reflections into meaningful and constructive parenting practices.

Previous studies have highlighted shifts in family dynamics when a parent has BD, such as family members stepping in during episodes (Chen et al., 2023; Liu et al., 2022), the involvement of community and social services (Anke et al., 2019; Stallard et al., 2004), children's growing independence (Backer et al., 2017), and parent–child role reversal (Harries et al., 2023). This study builds on these insights, revealing how recurrent BD episodes can

progressively erode the parental role and the complexities of restoring confidence, trust, and relational balance within the family. Mezes et al. (2022) resonate with my findings, emphasising personal recovery—helping individuals with BD rediscover purpose and identity—and social-functional recovery, which involves maintaining or rebuilding family roles and relationships amidst BD. In this context, tailored, family-oriented interventions are critical to be integrated into mental health services for parents with BD. For instance, the Integrated Bipolar Parenting Intervention (IBPI), a web-based programme combining positive parenting and self-management training, has demonstrated reductions in children's emotional and behavioural problems alongside decreased parental stress and increased confidence (Jones et al., 2017). Similarly, Let's Talk About Children, initially designed for parents with unipolar depression, has been shown in a qualitative study to restore parenting confidence, foster self-regulation, and provide tools to manage the impact of mental illness on family dynamics (Goodyear et al., 2022), and could be adapted for parental BD.

This study's strengths lie in its rich, in-depth qualitative data from diverse informants—parents, partners, and stakeholders—capturing multiple perspectives on parenting with BD by integrating intimate, lived parenting experiences from parents and partners with broader clinical and systemic insights from stakeholders. By focusing on the pre-adolescent stage, it also addresses a significant gap in the literature, as this developmental period has often been overlooked. However, several limitations warrant attention. First, the UK-based, self-selected sample lacked ethnic and cultural diversity, potentially limiting the generalisability of my findings to other regions or populations, particularly given the cultural specificity of parenting experiences in BD (Tu et al., 2025). Second, while this study examines family dynamics, it relied primarily on data from parents with BD or their partners, excluding children's perspectives and potentially underrepresenting the complexity of BD's impact on family life. Third, all interviews were conducted over Microsoft Teams. This remote format enabled

nationwide recruitment, reduced travel or childcare barriers, and allowed some participants to feel more at ease speaking from home. Nonetheless, it may have limited the observation of subtle non-verbal cues, occasionally interrupted conversational flow because of connectivity issues, and made it easier for non-eligible individuals–such as people based outside the UK–to pose as eligible participants. To mitigate these drawbacks, cameras were kept on whenever possible, follow-up prompts were used to clarify ambiguous reactions, and IP-address checks helped confirm participants' geographical eligibility. Finally, the inclusion of retrospective accounts from parents of older children may introduce recall bias, though these insights also offer valuable hindsight, enriching the data with patterns and lessons difficult to capture in real-time.

4.5 Conclusion

This study deepens understanding of the unique parenting challenges and support needs faced by parents with BD raising pre-adolescent children. It highlights how mood-driven inconsistencies in parenting, coupled with shifting caregiving roles and BD-related emotions such as guilt and anxiety, shape the parent–child dynamic. These findings underscore the importance of interventions that go beyond symptomatic recovery to include personal and relational recovery—rebuilding parental confidence, fostering trust and connection, and restoring parenting roles within the family.

Chapter 5: Parenting Experiences of Managing Child Anxiety Problems in the Context of Parental Bipolar Disorder: A Qualitative Interview Study

5.1 Introduction

Building on the insights from Chapter 3 and 4, which examined broad parenting experiences with pre-adolescents in the context of parent bipolar disorder (BD), this chapter shifts focus to the intersection of parental BD and the management of child anxiety problems specifically. Children of parents with BD are not only nine times more likely to develop BD themselves but are also significantly predisposed to anxiety disorders as early as pre-adolescence (Tu et al., 2024). These anxiety disorders cause significant distress and often act as precursors to major mood disorders later in life (Buckley et al., 2023; Dong et al., 2019b). These findings underscore the urgent need for targeted, early interventions to address the heightened risks faced by these children.

Traditional anxiety treatments often require direct child participation in lengthy in-person sessions, which can place logistical and emotional burdens on families already managing the complexities of parental BD (Kendall, 1994). These challenges are further compounded by the transgenerational transmission of anxiety, meaning that multiple children in a family may need support at different times. Given the fluctuating nature of BD symptoms and the limited availability of specialised child mental health services, attending frequent child-

focused therapy sessions may not be feasible for these families. Parent-led CBT (PL–CBT) provides a more scalable and sustainable alternative by equipping parents with effective anxiety-management techniques that can be flexibly applied across all their children as needed (Creswell et al., 2023). This approach reduces barriers to accessing treatment, such as time constraints and reliance on external mental health providers, while also empowering parents to actively support their child's anxiety management (Reardon et al., 2018). Importantly, research shows that PL–CBT can be as effective as child-focused CBT in treating preadolescent anxiety disorders (Creswell et al., 2023), with long-term benefits lasting three to five years post-treatment (Brown et al., 2017). This suggests that adapting PL–CBT for BD-affected families could help alleviate current child anxiety symptoms and mitigate future psychopathology risks.

Although parent-focused interventions can benefit families where a parent has BD, existing approaches do not specifically target child anxiety management. For example, the Integrated Bipolar Parenting Intervention (IBPI) has been shown to improve parenting confidence, stress management, and child psychopathology outcomes in BD-affected families (Jones et al., 2017). However, IBPI is a broad parenting intervention, highlighting a crucial gap in available support for anxiety-related challenges in children. Given the heightened risk of anxiety disorders in the offspring of parents with BD, tailoring PL–CBT to this population is a logical next step. PL–CBT provides a structured, evidence-based framework that has been found to be effective in reducing child anxiety. Adapting this model to accommodate the

specific challenges of BD-affected parenting could enhance accessibility and long-term effectiveness, providing a targeted intervention for families navigating both BD and child anxiety.

Adapting parent-led CBT to families affected by BD requires further exploration of the specific ways in which BD impacts parents' ability to support their children with anxiety problems. Despite growing recognition of the challenges faced by parents with BD, there remains limited research addressing how these challenges influence parenting strategies and the management of child anxiety problems. To address this gap, this chapter aims to build on earlier findings by exploring two central questions: (1) How do parents with BD manage their children's anxiety problems, and what challenges do they encounter? (2) What are the specific support needs of families where a parent has BD and a child with anxiety problems? By focusing on these questions, this chapter seeks to provide further insights to inform the development of tailored, family-centred interventions for this population.

5.2 Methods

As in Chapter 4, this chapter employs the same participants and qualitative methods.

5.3 Results

From the analysis, I generated 44 refined codes, capturing diverse insights from participants: 37 reflecting shared perspectives among parents and stakeholders, 4 originating

exclusively from parents, and 3 unique to stakeholders. The codes converged into four overarching themes, encompassing 10 subthemes detailed in **Supplement 5.1**. The thematic framework covers: Theme 1 (BD as a Resource) with 14 codes, Theme 2 (BD as a Challenge) with 8 codes, Theme 3 (Empowering Parents as Key Agents) with 11 codes, and Theme 4 (Adapting Treatment to Needs) with 11 codes. Cross-role triangulation enriched the findings' credibility, as all subthemes integrated the perspectives of multiple respondent categories, ensuring comprehensive representation of experiences and insights.

Research Question 1: How Parents with BD Manage Their Children's Anxiety Problems and the Challenges They Face

Theme 1: BD as a Resource for Supporting Child Anxiety Through Mutual Understanding

Participants suggested how mutual understanding between parents with BD and their children can facilitate child anxiety management. Lived experiences were seen to foster empathy and shape coping strategies. Reflecting on BD's impact seemed to shift parental guilt into proactive support. Open discussions about BD were viewed as potentially reducing children's fear and encouraging emotional expression. However, these efforts were sometimes limited by parents' past treatment difficulties, persistent guilt, and children's reluctance to express their anxieties.

Subtheme 1.1: Leveraging Parental BD Experiences to Enhance Empathy in Child Anxiety Support

Both parents and professionals reflected on how lived experiences with BD, including emotional distress, anxiety symptoms, and past treatment encounters, shaped their approach to supporting their children's anxiety. Some parents felt these experiences deepened their empathy, fostering greater sensitivity to their child's distress, validating their emotions, and promoting early help-seeking. A psychiatrist noted, "*They [parents with BD] had all experienced anxiety themselves… they were empathic with their children… appreciating their children's difference... sometimes patients also talk about... because I've been ill, I understand [children's] anxiety*" (S06). Some parents also shared coping strategies, offering what one peer group facilitator described as "a *rich toolbox and resources to help their children*" (S04).

Perspectives from parents indicated that personal BD experiences informed a proactive stance towards seeking professional support. One father with BD observed, "*I'm more aware of any problems with [the son], and more likely to look for help if I feel there's a psychological problem*" (P01). However, these experiences could also lead to hesitations. Both parents and professionals highlighted that negative past encounters with the mental health services may result in reluctance to engage professionals for their children. As one father explained, "I*f you're a parent who has had that kind of help… you want to keep that out of your own individual relationship with your child*" (P10). These reflections illustrate how BD-related

experiences can serve as both a resource—enhancing empathy and facilitating early support—and a challenge, reinforcing fears and hesitations around professional involvement.

Subtheme 1.2: Transforming Guilt into Action: Reflection-Driven Strategies for Child Anxiety Support

Both parents and professionals acknowledged that parental BD condition might influence their child's anxiety, expressing feelings of guilt, apprehension, and responsibility. A psychiatrist observed that some parents described a heightened awareness of their mood fluctuations' impact, noting, *"[parents with BD] mentioned obviously feeling guilt... times when they've been depressed or manic had sort of directly affected the child. Some were worried about genetics and that they in some way had transferred their vulnerability*" (S06). Similarly, a mother with BD shared her struggle with self-blame: "*I initially felt like a failure as a parent, like you failed them [due to their anxiety] … you can't fix…that was awful*" (P08).

While distressing, both parents and professionals described how guilt and anxiety sometimes served as a catalyst for proactive support. One father reflected that his awareness of BD's potential impact motivated him to take practical steps: "*They feel anxiety that your condition might be passed onto your child, and therefore whatever you can do to help them manage their mood*" (P10). Another father described how actively supporting his child's anxiety helped alleviate self-doubt: "*It helps me feel more empowered… I'm not going to be*

doubting myself or feeling guilty" (P05). These reflections suggest that when reframed as a motivator, guilt—combined with strategies for supporting child anxiety—can empower parents with BD to adopt constructive, empathetic approaches that foster their child's emotional well-being.

Subtheme 1.3: Facilitating BD-Related Conversations to Foster Understanding and Emotional Security

Both parents and professionals emphasised that open conversations about BD could help children make sense of their parent's behaviours, reducing confusion and fear. A mental health nurse noted that children often struggle to interpret what they observe: "*The children don't actually know what's happening... they become frightened and scared of what the parents are actually doing and trying to conceptualise it for themselves*" (S08). Similarly, a psychiatrist highlighted how unexplained hospitalisations could be distressing: "*[Children] were absolutely terrified, not really understanding what is happening… where are they taking mummy away?... So, the children are obviously left with a lot of questions*" (S12). In some cases, this uncertainty appeared to lead to self-blame, as another psychiatrist observed: "*There's a risk that children feel guilty… that they somehow caused the [parent's] difficulty"* (S06). A charity worker, who also identified as a mother with BD, advocated honest explanations to alleviate these fears, noting that it would make the situation "*not so frightening*"

(S07). Another mother with BD added, "*you have to explain it [BD], otherwise… [anxiety] would be a lot worse for him [the son] if he didn't understand what was going on*" (P04).

Both parents and professionals also described the importance of modelling emotional openness to teach their children how to express their feelings. A mother, whose ex-partner has BD, explained: "*You've got to share your own experience, because… if people aren't open and honest with you, you can't give the best of you to help them… It's got to be a two-way street. You've got to have a relationship of trust… so that you can do your best to recognise the anxiety… and hopefully allow your child to be open and honest, so that you can work together to do something about it*" (P03). However, while open discussions could foster understanding, both parents and professionals also raised concerns that children might suppress their own anxieties to protect their parents. A psychiatrist reflected, "*Do [children] not open up to me [parents with BD] because they know I'm fragile and don't want to make me worse? … Quite a lot of parents talked about children being very protective of them, almost more like the parent*" (S06). These reflections underscore the nuanced nature of BD-related conversations—while openness can help reduce confusion and fear, fostering an environment where children feel safe to express their own anxieties remains essential for supportive family dynamics.

Theme 2: BD as a Challenge for Supporting Child Anxiety Through Emotional and Family Instability

Participants highlighted how BD could contribute to an anxiety-prone family environment, with mood fluctuations disrupting caregiving consistency. While stable periods were seen to foster a sense of security and ease children's anxiety, mood episodes can introduce unpredictability. Participants also discussed how balancing self-care with caregiving demands could, at times, strain parents' emotional resources and limit their capacity to consistently support their children's anxiety.

Subtheme 2.1: BD Shapes an Anxiety-Prone Family Environment

Both parents and professionals highlighted that fluctuating mood states associated with BD can make it difficult for parents to consistently support their children's anxiety, contributing to a caregiving environment marked by unpredictability. Mood episodes, particularly those involving emotional dysregulation, were perceived to instil fear and insecurity in children. A family therapist recalled a father's disruptive behaviour during an intense episode: "*He swore [at] everything in the room… his son got very scared*" (S01). Similarly, depressive states often led to emotional withdrawal, which some parents felt undermined their child's sense of safety. One mother with BD shared, "*I'll go rigid and I'll just want to walk past [my son]. I don't want to be touched... he'll hold on to me... So that's tough*" (P04). Her son would cling to her, seeking connection despite her detachment. Such unpredictable parental emotions and behaviours appeared to heighten children's anxiety. A charity worker described how children struggled with uncertainty, questioning, "*what's going*

to meet me… is it going to be up mum or down mum... will there be anything for dinner" (S07). A psychiatric nurse similarly noted children's anxiety about anticipating parental emotional states upon the parent's return home from hospital: "*they don't know how to react… how to behave… either being told off or being shouted at… the boy was bedwetting because he was frightened of his mum coming home*" (S08). These accounts illustrate how emotional instability within the family environment may contribute to heightened anxiety in children, particularly when parental responses are difficult to anticipate.

Periods of separation due to hospitalisation or family conflict were perceived to heighten children's anxiety by disrupting their sense of stability and security. One father recalled how his partner's hospitalisation affected their child: *"when [the mother with BD] was in hospital… [the child] started refusing to go to school, and being very anxious about not being at home*" (P10). Parent perspectives specifically indicated that family breakdowns linked to BD episodes also appeared particularly destabilising. A mother described how conflict with extended family, triggered by a BD episode, led to the grandparents moving away: *"[The father with BD] disowned [the daughters' grandma]… following an episode... That destroyed their relationship, so [the grandparents] decided to move… that disrupted [the daughter], brought on behaviours again and made her quite anxious*" (P03). These accounts highlight how parental mood fluctuations foster an unpredictable caregiving environment, amplifying

children's anxiety through emotional instability, disrupted routines, and periods of separation or family conflict.

Subtheme 2.2: BD Limits Emotional Resources for Supporting Child Anxiety

Both parents and professionals described the ongoing tension parents with BD experienced in balancing their own emotional well-being with their children's caregiving needs. This strain was often felt to reduce their capacity to support their children's anxiety. One father with BD shared how his need for personal downtime conflicted with his daughter's frequent need for reassurance: "*When she is anxious, it will be like repeatedly coming down after she's in bed to offload her worries… That's hard because I need this downtime… It is draining… I'm not as patient as I'd like to be*"" (P05).

During periods of heightened BD symptoms, both parents and professionals described additional challenges in responding to their children's anxiety. One father with BD explained how his own mental state made it difficult to process his child's worries: "*when your mind is really full and busy… having the mental space to absorb my child's worries is quite hard*" (P05). A social worker similarly observed that parents' ability to empathise with their children can depend on their emotional stability: "*If she [the mother with BD] is in a good place… she can be more empathetic to the child. If she's not… her own needs are not being met, then this is difficult [to manage child's anxiety]*" (S09). These reflections highlight the dual challenge

parents with BD navigate—balancing self-care to maintain stability while also attending to their children's emotional needs, especially when those needs involve managing anxiety.

Research Question 2: The Support Needs of Families where a Parent with BD has a Child with Anxiety Problems.

Theme 3: Empowering Parents as Key Agents in Supporting Child Anxiety

Participants highlighted that equipping parents with understanding, stability, and practical skills can strengthen their capacity to support their child's anxiety in the context of BD. Sensitive and validating communication was seen to foster engagement without reinforcing parental guilt. Emotional stability and strong support networks were perceived as contributing to a secure environment that reduces anxiety triggers. Developing self-awareness and practical strategies was considered valuable in helping parents effectively navigate both their own experiences and their child's anxiety.

Subtheme 3.1: Empowering Parents through Sensitive Communication of the Link between BD and Anxiety

Both parents and professionals indicated that framing discussions about the link between BD and child anxiety in a sensitive and validating manner was crucial for fostering parental engagement without reinforcing feelings of blame. A charity worker noted that while parents with BD were often open about their own struggles, recognising the potential impact

on their children could be far more challenging: "*I've worked with parents who are very open about their illness … it's very difficult to think about the effect it might have on their children*" (S02). In research and intervention settings, this discomfort was felt to heighten parental guilt, sometimes reinforcing fears of being judged as inadequate caregivers. One mother with BD reflected, "*linking anxiety with our children… feeds into the narrative that bipolar makes them bad parents and further strengthens the inner blame*" (P11). To navigate these sensitivities, a psychiatrist emphasised the importance of a non-judgmental and validating approach to ensure parents felt supported rather than criticised: "*[researchers and therapists] will have to be careful… nothing could be misinterpreted as kind of 'you've been doing it wrong, you should do it this way'… there's that sensitivity to criticism and feeling of guilt that will come in right at the beginning that you'll have to sort of manage*" (S06). A mother with BD similarly highlighted the importance of shifting the focus from scrutinising parenting to prioritising child-centred support: "*It's just about how to help the child… not on the parenting thing wrong… [parents with BD] really hate their parenting being under the spotlight*" (P08). These perspectives highlight the importance of approaching conversations with care, ensuring that parents feel supported in addressing their child's anxiety without fear of judgment or undue self-blame.

Subtheme 3.2: Empowering Parents to Build Stability and Reduce BD's Impact on Child Anxiety

Both parents and participants emphasised the importance of fostering parental stability—both emotional and behavioural—to help minimise anxiety triggers for children. A father with BD reflected on how maintaining stability and making behavioural adjustments appeared to ease his child's anxiety: *"The fact that I've been quite stable… has helped [child anxiety] … [it's about] sharing information that indicates that I would need to change my behaviours*" (P01). A psychiatrist similarly highlighted the role of strong support networks, suggesting that when parents with BD feel emotionally secure, their children may also experience a greater sense of safety: "*They've got mental health services involved… if [parents with BD] feel safe, then the children can feel safe as well… parents with bipolar need that safety net*" (S12). Parent perspectives specifically highlighted that stability provided by other family members may also play a crucial role in alleviating child anxiety. A mother with BD described her own mother's calming influence: "*[my mum]'s just really laid back. I don't think [my son] ever really gets anxious around my mum… that must be why he sits with her a lot*" (P04). Beyond parental stability, both parents and professionals suggested that integrated therapeutic approaches addressing both parental BD and child anxiety could motivate parents to remain engaged in their own self-care while also supporting their child's emotional well-being. A peer group facilitator noted: "*If there are any common strategies that work for both bipolar and anxiety… it could be a motivating factor that you do it… it could give you that little boost they might need on that particular day if you're feeling really down*" (S05). These

reflections highlight the value of a holistic approach that strengthens parental stability, self-awareness, and access to support systems, potentially fostering a more secure and emotionally regulated environment for children with anxiety.

Subtheme 3.3: Empowering Parents to Apply Their Experiences and Skills in Supporting Child Anxiety

Parents and professionals emphasised different benefits of equipping parents with practical skills to foster a supportive family environment, rather than relying solely on child-focused interventions. Professionals highlighted the importance of addressing family-wide dynamics, suggesting that empowering parents could help prevent recurring anxiety-related difficulties, as a social worker suggested: "*Empowering parents to be able to do that… rather than bringing the child separately to the parent into a clinic, working with the child, putting them back into that [anxiety-inducing] environment… it's not surprising that we're going to get another referral*" (S09). In contrast, parents viewed parent-led approaches (in which parents are supported to help their child) as a way to reduce stigma and avoid pathologising the child's anxiety. A mother with BD expressed a preference for interventions delivered through parents, noting that this approach helped prevent children from feeling singled out: "*I like the idea of that being delivered through the parents so that the child doesn't feel like they're the problem*" (P02).

Additionally, both parents and professionals reflected on the role of parental self-awareness in supporting child anxiety. A mother described how recognising her own emotional triggers enabled her to respond more effectively to her child's distress: "*Parents have to… recognise their own anxiety and triggers, so that they can then recognise it in their children*" (P03). A social worker further emphasised the benefits of Mentalisation-based interventions, explaining that guiding parents to reflect on their own emotions could enhance their ability to support their child: "*We mentalise the parent… so that they can then think about mentalising their children*" (S09). These reflections suggest that interventions that equip parents with both practical skills and self-awareness may empower them to foster a more stable, understanding, and stigma-free environment for their child.

Theme 4: Adapting Treatment to Emotional and Practical Needs

Participants identified emotional and practical barriers that could hinder sustained engagement and effective implementation of parent support programmes. They emphasised accessible, easy-to-apply strategies aligned with parents' current emotional states. Interactive and adaptable approaches were seen as beneficial, allowing parents to engage at their own pace. Flexible delivery methods—such as online sessions, adaptable scheduling, and earlier or extended interventions—were highlighted as potentially enhancing accessibility and responsiveness to parents' varying circumstances.

Subtheme 4.1: Flexible Treatment Delivery Tailored to Parental Condition

Both parents and professionals highlighted emotional and practical barriers that could make it difficult for parents with BD to consistently engage in support programmes, emphasising the need for flexible delivery options. A charity worker noted that low mood could reduce parents' motivation to participate: "*You can become more introverted if you're in a lower mood… It [programme] might be less appealing*" (S03). A psychiatrist similarly observed that the demands of managing illness, parenting, and work made consistent attendance challenging: "*They [parents with BD] often tend to be working and have children and be juggling a whole load of different things... so no shows or last-minute cancellations or turning up late*" (S06).

To enhance accessibility, both parents and professionals suggested integrating technology and adjusting schedules to accommodate parents' needs. A peer group facilitator described how online sessions provided a more accessible option, even on difficult days: "*It doesn't matter how low she [parent with BD] feels… She will always be there because it's online and she knows it helps her*" (S05). A social worker emphasised the importance of offering support beyond conventional hours: "*Consistent, and available at sort of unorthodox times… not necessarily nine to five… even if it was by text message that somehow helped to contain all this mum [with BD]*" (S09). Additionally, a mother with BD highlighted the value of early or extended interventions, noting that establishing new routines could take time: "*It*

would be a lot easier to have started the process right at the beginning of [child's] anxiety… it takes a long time for someone with bipolar to pick up their routine and try to stick to it" (P06). Further, group settings were seen as beneficial for some parents with BD by providing a lower-pressure environment: "*it takes the pressure of parents who may not feel ready to share their experiences… listening to other parents can be the first step they need,*" shared by a mother with BD (P11). These accounts underscore the need for flexible programme delivery to support sustained parental engagement.

Subtheme 4.2: Achievable Treatment Approach Tailored to Parental Condition

Both parents and professionals highlighted the need for treatment approaches that account for the challenges of managing a child's anxiety while coping with BD. One mother with BD reflected on the difficulty of maintaining parenting techniques consistently: "*When I'm not feeling present… I can't stick to [parenting techniques] … when I'm like feeling great, I'm going to put all of these things in place… [the programme] didn't cater to me for the downs… there needs to be some kind of adaption… to make doing the same thing easier*" (P06).

Both parents and professionals outlined three key approaches that emerged as ways to make treatment goals more achievable. First, a psychiatrist suggested adjusting expectations to align with parents' fluctuating emotional states: "*Reassuring the parent that they don't have to be delivering the interventions to their child perfectly 100% all the time… because their ability*

to function does vary day to day" (S06). Second, a father with BD emphasised the value of simple, interactive strategies: "*Clear and concise tips for what to do with your child when they're anxious is helpful…. a short workbook to go through with the kids, helps you feel more hopeful [and] empowered… shorter and simpler is better*" (P05). Third, ongoing support from professionals or peers was seen as important in helping parents apply learned techniques. A charity worker described how providing a space for parents to express their struggles, along with practical follow-up resources, could be beneficial: "*sometimes it's about listening to the parent and that parent having a space to just offload… if you've got information, you can signpost, or you've got a resource that you can follow up with by email*" (S03). Further, professional perspectives specifically highlighted the importance of clear, practical guidance on accessing available resources and support, such as government assistance or school-based help. A peer group facilitator suggested: "*I feel like a lot of times information is being lost with what support can people actually get from the government or what support they can get in school… clarity of information… having a really digestible [guide] of what can be done… that I can use as a parent with bipolar whose child is struggling with anxiety*" (S05). These insights suggest that adapting treatment approaches to be flexible, practical, and supportive may enhance parents' ability to engage with and apply strategies effectively.

Comparative Analysis of Thematic Contributions

Although most results integrated insights from both parents (parents with BD and co-parents) and professionals (i.e., mental health professionals and charity workers), a comparative analysis revealed distinct contributions from each group regarding managing child anxiety in families affected by parental BD: Parent perspectives uniquely emphasised the personal and familial contexts shaping their approaches to anxiety management. Drawing directly from lived experiences of BD, parents described how interactions with mental health services could either foster proactive help-seeking or lead to hesitations due to negative past experiences. They highlighted family disruptions linked to BD episodes as particularly anxiety-provoking for children, while also acknowledging the stabilising influence provided by emotionally steady family members. Parents specifically valued parent-led interventions as a way to reduce stigma and avoid pathologising their child's anxiety. In contrast, professional perspectives highlighted the systemic and structural elements essential to supporting parental management of child anxiety. Professionals emphasised the importance of clear, accessible guidance on navigating external support systems, such as government assistance or school-based resources. They identified family-wide dynamics as critical, suggesting that empowering parents could reduce recurring anxiety issues by addressing environmental contributors rather than treating children in isolation.

5.4 Discussion

This chapter provides valuable insights into two interrelated areas concerning families affected by BD. Regarding how parents with BD manage their children's anxiety (Research Question 1), the findings indicate that when parents with BD and their children understand each other's experience, it helps parents support their children's management of anxiety more effectively. Parents' lived experiences may enhance empathy and encourage early help-seeking, while reflecting on BD's impact on their children, though sometimes arousing guilt, can inspire proactive support efforts. Moreover, open communication about BD appears to foster emotional security in children. However, parents with BD were identified as struggling to support their children's anxiety due to unpredictable mood fluctuations and inconsistent caregiving, which may contribute to an unstable, anxiety-prone family environment. The ongoing tension between managing their own emotional well-being and meeting their children's needs may further deplete their capacity to provide sustained, effective support. Regarding the support needs (Research Question 2), participants highlighted the critical role of empowering parents as key agents in their child's anxiety management. This empowerment process can involve sensitive communication about the BD-anxiety link, promoting emotional stability, and establishing strong support networks. Additionally, equipping parents with practical skills and self-awareness can enable them to respond more effectively to their child's anxiety-related needs. Furthermore, flexible treatment options (e.g., online sessions, adaptable scheduling) were seen as crucial for accommodating parents' emotional fluctuations and

improving intervention engagement. Simple, practical strategies tailored to the parent's mood and capacity were especially valued for their applicability in supporting children's anxiety.

The findings of this chapter highlight two ways BD complicates support for anxious children. First, BD can create an unpredictable caregiving environment that heightens child anxiety, as highlighted by Calam et al. (2012) and Iacono et al. (2018), who link BD-related caregiving inconsistency to increased internalising problems in children. This highlights the need for interventions beyond child-focused approaches. Addressing family dynamics, including parental and parent–child factors, seems to be key for effective support. The RUSH programme, which offers separate group sessions for parents and children, exemplifies this approach by targeting the broader family environment. By reducing parental stress and enhancing parent–child interactions, the programme helps mediate improvements in children's internalising symptoms (Resendes et al., 2023; Serravalle et al., 2021). Second, BD-related symptoms can impair parents' abilities to provide consistent support for their child's anxiety, particularly during mood episodes. Thus, interventions should not only strengthen parenting practices but also mitigate the impact of BD symptoms on caregiving or offer tailored support for parents that they can access and make use of even when symptoms are present. The IBPI programme, a web-based programme designed to enhance parenting skills while promoting self-management of mood symptoms in parents with BD—has demonstrated improvements in child emotional and behavioural problems, increased parental competence, and reduced

parental stress (Jones et al., 2017). Although RUSH and IBPI were initially tested with BD-at-risk children without diagnosed mental health conditions, they could be promising models for families managing child anxiety in the context of parental BD.

While BD can significantly challenge parents' capacity to support their children, some parents harness their lived experiences and resilience to transform these challenges into valuable parenting resources. This aligns with the concept of Posttraumatic Growth (PTG), which describes the positive psychological changes that can emerge from confronting major life crises (Calhoun & Tedeschi, 1999). Although much research has focused on the negative impacts of BD, Lobban et al. (2012) observed that BD experiences can foster deeper empathy and insight. In a parenting context, Peay et al. (2014) demonstrated that such insights enable parents with BD to better understand and monitor their children's moods. This chapter extends these observations by highlighting the importance of fostering mutual understanding between parents and children, encompassing various aspects of BD experiences—including the symptoms parents face, the coping strategies they develop, the therapy they receive, their self-reflections, and parent–child conversations about how BD affects parenting. Furthermore, these experiences can be a double-edged sword. For instance, awareness of genetic risks in parental BD has mixed effects: while Peay et al. (2014) found that a family history of mood disorders can motivate parents to actively manage potential risks in their children, Davison & Scott (2018) noted that attributing BD to genetic factors may reduce parents' optimism about

prevention and even contribute to anxiety in their offspring. This chapter proposes that by sensitively guiding parents through meaning-making and self-efficacy building—key components of PTG (Mazor et al., 2018)—professionals can help transform BD-related challenges into strengths, equipping parents to provide more consistent and emotionally attuned support for their children.

Despite the emphasis on individually tailored support (e.g., professional or peer support), parents with BD also require flexible, accessible delivery methods and practical, easy-to-apply techniques. While these needs may seem contradictory—since highly flexible approaches, such as self-guided help, often provide less personalised support—they can be effectively integrated into a hybrid model that balances adaptability with meaningful engagement. For instance, the group-based RUSH programme addresses this challenge by incorporating bi-weekly booster calls, ensuring that individual concerns are not overlooked in a group setting (Serravalle et al., 2021). Furthermore, research on online interventions for symptom control in people diagnosed with BD (Smith et al., 2011; Todd et al., 2014) and parental support for parents with BD (Jones et al., 2017) further suggests that interactive tools outperform static, text-based content in maintaining engagement. This highlights a key clinical implication: Providing low-burden support—such as telephone or email check-ins—along with optimising content for interactivity and responsiveness to parents' immediate needs may further enhance treatment effectiveness.

A potential limitation of this study is its narrow focus on the impact of parental BD on child anxiety problems, specifically exploring factors directly related to the parent's BD. While this approach provides rich insights, it may overlook other significant aspects, such as the parent's gender, BD type, medication responses, comorbidities, and the role of intimate partners, which could shape children's experiences differently (Abel et al., 2024; Lageborn et al., 2024; Serravalle et al., 2020). Additionally, the findings rely solely on parent and professional perspectives, potentially missing perspectives from children's own experiences (Popp et al., 2017). Including children's voices in future research could offer a fuller picture of parental BD's impact on child anxiety problems. Furthermore, the sample was predominantly well-educated, co-parenting, White participants from South England, limiting the generalisability to diverse socio-economic, racial, and regional groups across the UK. Participants may also have had fewer comorbid conditions and better resources than the broader population of parents with BD, reducing transferability to more severely affected families (Puchol-Martínez et al., 2023). The use of retrospective self-reports in this chapter—despite potential recall bias—is consistent with my qualitative goal of capturing reflective, present-day meaning. This approach intentionally enabled parents and professionals to also offer enriched insights into their past parenting practices. Finally, as an inductive study, the findings are shaped by the specific contexts and perspectives of both the research team and participants, and thus should be applied cautiously to other settings or populations. However, a key strength

of this study is the synthesis of parents' experiential insights with professionals' broader systemic understandings, enriching the overall thematic structure and highlighting complementary priorities essential for developing comprehensive, family-centred interventions.

5.5 Conclusion

This chapter suggests that helping parents with BD reflect on, discuss, and manage their condition may enhance their ability to support their children with anxiety problems. Tailored, empowering, and family-focused interventions can help meet these families' needs. Future research should incorporate children's perspectives and take a longitudinal approach to better capture the evolving interaction between parental BD and child psychopathology, informing more effective interventions.

A key insight is that mutual understanding between parents and children plays a crucial role in managing child anxiety. While open communication about parental BD may support children's wellbeing, the barriers and support needs surrounding these conversations remain unclear. The next chapter explores how parents with BD communicate their condition to their children, the challenges they face, and the impact on family dynamics—an essential consideration for developing early interventions.

Chapter 6: Communication with Children about Parental Bipolar Disorder: A Qualitative Interview Study (Paper 3)

6.1 Introduction

Chapter 5 highlighted the pivotal role of mutual understanding between parents with bipolar disorder (BD) and their children in managing child anxiety, suggesting that open communication about parental BD may bolster children's emotional well-being. However, the specific barriers and support needs surrounding these conversations remain underexplored. This chapter builds on that insight by examining how parents with BD communicate their condition to their pre-adolescent children, the challenges they encounter in doing so, and the implications for family dynamics— critical dimensions for informing the design of early interventions tailored to these families' unique needs.

Effective communication is a cornerstone of parent–child interactions, particularly when a parent is living with a chronic condition like BD. Research on communicating life-threatening physical illnesses suggests that successful dialogue involves sharing factual information, addressing emotional responses, tailoring content to a child's developmental stage, and inviting questions (Dalton et al., 2019). Yet, in the context of BD, qualitative studies indicate that the disorder's unpredictable nature, combined with limited open discussion at home, can leave children with misconceptions and emotional distress (Backer et al., 2017; Campos et al., 2018; Chen et al., 2021). Parents often wrestle with decisions about how much to disclose, balancing their children's age, emotional readiness, and the potential ripple effects on family relationships (Chen et al., 2021, 2023; Tjoflåt & Ramvi, 2013). These observations point to a critical need for targeted research to unpack the challenges and support needs of BD-related communication within families, informing strategies to support these interactions.

Although research directly addressing BD communication is limited, parallels from other mental health contexts offer valuable lessons. For instance, parents with depression often seek guidance to navigate guilt, shame, and uncertainty when discussing their illness with their children (Pihkala & Johansson, 2008). The Family Talk Intervention (FTI), a structured approach to facilitating parent–child conversations about parental depression, has shown promise in reducing children's mood and anxiety symptoms, with benefits persisting for up to 1.5 years (Solantaus et al., 2010). Qualitative findings further suggest that FTI enhances children's understanding of their parent's condition, alleviates their worries, and boosts parental confidence while diminishing shame and guilt (Pihkala et al., 2012). These outcomes suggest that structured communication about parental mental health can yield significant benefits, underscoring the urgency of identifying the specific challenges and support needs for families navigating BD to develop tailored, effective interventions.

Building on this foundation, the current study seeks to explore parents' lived experiences of parental communication about their BD with their children, alongside perspectives from professionals working with parents with BD. Incorporating professional insights can potentially broaden and diversify the range of parenting experiences considered. The study's objectives are to explore: (1) parents' experiences and professionals' observations of how BD is communicated to children; (2) the impacts of this communication on parenting practices, the parent–child relationship, and child mental health; and (3) the challenges or barriers parents face in communicating their BD to their children.

6.2 Methods

This chapter employs the same participants and qualitative methods as described in Chapter 4.

6.3 Results

My qualitative analysis generated 74 refined codes—52 from both parents and stakeholders, 9 from parents only, and 13 from stakeholders only—distributed across themes: Theme 1 (Perceived Advantages) with 10 codes, Theme 2 (Perceived Challenges) with 11 codes, Theme 3 (Key Elements) with 29 codes, and Theme 4 (Practical Strategies) with 24 codes, with subtheme details in **Supplement 6.1**. The theme structure is robustly supported by triangulation, with most subthemes (8 of 12) incorporating perspectives from all five roles—fathers and mothers with BD, non-bipolar partners, mental health professionals or social workers, and charity workers—enhancing the findings' reliability, while all subthemes include contributions from at least four roles.

Theme 1: Perceived Advantages of Communication about BD

Participants highlighted several benefits of discussing parental BD with children, emphasising both the educational and relational aspects. This communication was viewed as enhancing children's awareness and understanding of BD, promoting their personal growth, and strengthening trust and emotional bonds within the family. These perceived advantages are explored through the following subthemes.

Subtheme 1.1: Promoting Understanding and Reducing Misconceptions in Children

Parents and professionals noted their beliefs that children often form their own interpretations of parental BD, which can lead to misconceptions and fear. A father with BD explained: "*They [children]… have all sorts of theories [about parental BD]… until they're told the reality*" (P07). A mental health nurse shared an example from their experience, suggesting that without accurate information, children may become anxious and confused when trying to make sense of their parents' unpredictable behaviours: "*The children don't actually know what's happening [during an episode] … then they become frightened and scared of what the parents are actually doing and trying to conceptualise it for themselves*" (S08).

Parents and professionals both reported that effective communication can help children understand how BD affects parental behaviour and reduce misconceptions. A family therapist noted: "*It [communication] is fair to both parties… because when the child is more aware… why is my mum or my dad saying something like this? They don't mean to say something like this*" (S01). A charity worker highlighted that honesty reduces anxiety: "*It's much better to be honest (about parental BD), because then it's not so frightening for the child*" (S07). This understanding can also empower children to cope with parental mood swings and may help them avoid blaming themselves for their parents' behaviours. As a mother with BD shared: "*Often she [daughter] goes 'it doesn't matter … I know it's just your mood.'… she knows it is just my illness*" (P08). Furthermore, sharing information about BD may foster psychological

maturity, encouraging children to reflect on their interactions with their parent with BD. Another mother with BD described how this communication enhanced her child's empathy: "*She [the child] understands everybody's individuality… she understands some of [others'] things are not her things. So, seeing it from their perspective… I do feel like [this understanding] made them more compassionate towards not just me but everyone*" (P06).

Subtheme 1.2: Fostering Expression and Strengthening Bonds in Children

Parents and professionals observed that discussing BD can encourage emotional dialogue between parents and children, particularly since children may hesitate to share their emotions for fear of upsetting their parents with BD. As one mother with BD remarked: "*Sometimes he [my son] doesn't always want to say how he feels because he is worried that he's going to affect you or upset you*" (P04). A mother with BD shared her belief that fostering open communication creates a safe environment for both parents and children to express their concerns, noting that such transparency not only "*gives [children] the opportunity to come and talk to me or their dad if they have anxiety over something in their lives,*" but also makes it "*much easier to tell them if I am in a depressive episode"* (P11). A peer-support group facilitator explained that this approach helps children articulate their emotions: "*They [parents with BD] would describe how they feel… they got their kids used to talking about their feelings in this way and started explaining… 'This is how I feel today'"* (S04). Engaging in honest and supportive dialogue can also help reduce feelings of isolation, as children may feel they are the

only ones who have a parent with BD. A charity worker observed: "*Children in this situation feel shame… because mental illness isn't talked about, and they think that they're the only ones experiencing family life like this*" (S02).

Parents and professionals also reported that discussing BD with children can strengthen the parent–child bond and build trust. A father with BD affirmed: "*I think [talking about] it is a good thing… it definitely does help the bond because we're able to talk about that [parental BD]*" (P05). This communication may also help maintain connections in families experiencing physical separation. A peer support group facilitator recalled how one father, living apart from his daughter, used letters to bridge their communication gap: "*His daughter [initially] refused to talk to him… he found it easier to communicate [through letters], explaining to her... why he's not together with her mum, why he sometimes acts the way he does, and how he feels… I know they did exchange a few letters and he found a lot of comfort in them*" (S05). However, it remains unclear how the daughter perceived these letters or what impact they had on her.

Theme 2: Perceived Challenges of Communication about BD

Participants voiced concerns about communicating about parental BD to children, particularly regarding uncertainties around what to share, when to share, and how to approach the discussion. These challenges were further complicated by fears of how children might perceive the conversation and the psychological burden it could impose. This underscores the

need for thoughtful guidance to help parents discuss BD in a way that maximises benefits while minimising harm, as explored in this theme.

Subtheme 2.1: Fears of Placing Emotional Burdens on Children

Both parents and professionals expressed concerns that sharing a parent's BD could confuse or distress children. A charity worker emphasised the need for sensitivity: "*The child could be really upset at the end of [the conversation] or not want to take the information in. I think that depends on that child and parent relationship and how it's sensitively conveyed*" (S03). This risk became evident when one daughter appeared overwhelmed by her mother's unplanned disclosure of past suicidal thoughts: *"I was just waiting at the bus stop, and I said something about when I was suicidal and [my daughter] went 'What?' I hadn't realised I hadn't mentioned it… she was really, really shocked… oh bless her"* (P08). Fears about the emotional impact often lead to hesitation in starting the discussion. A father with BD explained: "*I would not go into the ins and outs of what bipolar is… it could easily frighten them [the children]*" (P07). Concerns about hereditary risks also weighed heavily on some participants. A mother with BD worried: "*I would be really concerned that he [my son] might worry that he might have it [BD] and get diagnosed with a mental illness too*" (P02). She also feared her postpartum diagnosis might emotionally burden her son: "*I'm really concerned because of the way I was diagnosed as being a postpartum-related diagnosis, I am really concerned that [the son might] ever feel that it was his fault*" (P02). Professionals specifically observed that these

conversations can become even more complex when both the parent and child have mental health concerns. A peer group facilitator noted: "*If you're in that situation of a parent having bipolar and their child having anxiety problems, you wouldn't want to be a burden on the other. So often, you would not communicate what's going on because you know that the other one is struggling*" (S05).

Subtheme 2.2: Self-Acceptance and Stigma as Barriers to Communication

Both parents and professionals suggested that the way parents perceive their diagnosis influences their willingness to communicate about it. A social worker observed, "*The parent's relationship to the diagnosis… if a parent doesn't find that diagnosis particularly helpful or they're feeling stigmatised by the diagnosis… that informs how they might want to talk about their mental health with their children"* (S09). Struggles with self-acceptance can limit openness, as a charity worker explained: "*[Disclosure] is sort of like how parents feel comfortable about their own diagnosis if they accept it" (S03).* Participants noted that when parents do not feel the BD diagnosis is helpful or do not recognise it, they may avoid communication altogether. One mother shared that her ex-partner refused to talk about his BD: "*In terms of my kids, they have a dad that will not talk about his bipolar. It does not come up in conversation ever. He actively avoids it… it often leads to real disappointment [in children]*" (P03).

Both parents and professionals expressed concern about how children might perceive their parents after discussing parental BD. Parents worried their children would see them as "*something wrong*" (P06), "*seriously different from other dads*" (P03), *"weird*" (S10), or "*not capable of looking after [their children]*" (S07). These fears could shift family dynamics, leading children to view the parent with BD as less reliable. A "well" father observed: "*It [the conversation] made them [the children] very much more dependent on me. They felt that… I was the safer parent to be with*" (P10). Some parents also feared their children's reactions, as one mother with BD shared: "*I haven't really explored it [parental BD] with him [the child]... I'm a bit scared to ask him directly. You know how you feel scared of what his answer would be*" (P02). Professionals noted that stigma could also extend to interactions with extended family and the community, further complicating these conversations. A social worker shared their experience of working with parents who perceived that "*If I [the parent] tell my kids, then my kids are going to tell the neighbours' kids, which means the neighbours know, and I think it's all wrapped up in stigma*" (S10).

Subtheme 2.3: Uncertainty in Communicating about BD

Both parents and professionals highlighted the uncertainty that parents face regarding what, when, and how to communicate about BD. A psychiatrist noted that parents often question: "*How much do I tell them [children]? What do I share? How do I share?... Am I in some way contributing to their anxiety by either showing them too many of my symptoms or*

hiding my symptoms?" (S06). The unpredictable course of BD symptoms can make it especially challenging to answer questions like "*Are you always going to be like this?*" (P05), "*Why are you ill?*" (S06), or "*Is this going to happen to me?*" (P07). As a father with BD explained, the episodic nature of the disorder can complicate these conversations: "*It's a bit difficult to explain just how it's sometimes… most of the time I'm okay, and then sometimes I'm not*" (P05). A charity worker added, "*The biggest struggle in the conversation [with children] was to talk about the fact that bipolar disorder cannot be fixed*" (S04). Determining the right time to share information about BD is also challenging. A charity worker noted parents with BD often ask, "*When they should tell [their children]*" (S07). The child's age and developmental stage seem to play a significant role, as one mother described: "*When they [the children] were very little, it was really difficult to explain that [parental BD] to them to make any sense*" (P03). As children grow older, parents may fear their child's increasing awareness and deeper questions, as another charity worker observed: "*[Children are] asking more questions [about parental BD] and starting to become more aware*" (S03). Parents often grapple with uncertainties about BD's heritability, as a mother with BD shared: "*I think nobody really knows what the genetic links are*" (P02).

Theme 3: Key Elements of Communication about BD

Participant accounts identified four key elements of communication about BD: age-appropriate communication, addressing children's concerns, providing reassurance of a

consistent personality and love, and preparing for future episodes. These insights are derived from participants' lived experiences and their beliefs about what contributes to the communication process with children.

Subtheme 3.1: Age-Adaptive Communication

Both parents and professionals noted that discussions about BD often begin with issues relevant to children, such as changes within the family. One mother explained: "*It started off as a conversation [with the children] about why we are living here? Why aren't we still living with Daddy [who has BD]? So we first kind of tackled that… to allow her [the child] a little bit of understanding about what bipolar was … why he behaved in the way that he behaved at the time*" (P03). For younger children, participants emphasised using simple, everyday language, avoiding medical terms like "*psychosis*" (S08), "*neurochemicals and neurotransmitters*" (S12), and "*brain chemical imbalance*" (P07). Instead, parents recommended phrases such as "*I have something in my brain*" (P04), "*my brain doesn't work the same*" (P06), or "*Papa goes up and down with his mood*" (P09). As children mature, more detailed information can be introduced through online articles (P03), scientific explanations (P07), or websites about BD (P09). Participants suggested that using familiar analogies or metaphors may help explain BD to children. One mother compared the disorder and its treatment to a physical injury: "*It never goes away because once you've broken a bone, it remains weaker than it was before… It's like when you break your leg, you have to have*

medicine to manage the pain … wear a cast… to make it better" (P03). To make these explanations resonate, parents sometimes develop unique terms that fit their own context, referring to medications as "*my crazy pills*" (P06) or using "*sleep diarrhoea*" for excessive sleeping (P10), reflecting how they personalise language to better communicate with their children.

Both parents and professionals emphasised the importance of developmentally appropriate, child-friendly materials for communicating about BD. For younger audiences, a psychiatrist suggested using familiar cartoon characters: "*I think it's got to be done in their language… [like] Winnie the Pooh… if you look into it, all the characters have a mental health issue… that's the way to present it to very young children"* (S12). Storybooks were also valued for age-appropriate dialogue, with a charity worker noting: "*We're sending a resource to somebody that could sit down and have a conversation in a book with the child through a story*" (S03). Mood charts were another tool to engage families: "*You're looking at the sort of zero being the really low mood, suicidal, to the mania, the psychotic… the ten… they could use it alongside the family and say, like, 'What's your mood today?'… It could become a resource that everybody on the fridge has a mood scan, ticks their mood each day to see how's everybody doing*" (S03). Participants also advocated for simple, practical aids like leaflets to ease the burden on parents. A peer-support group facilitator shared: "*A simple tool like a little leaflet… takes the pressure off the parents… [on] how to explain it [BD] to a child*" (S04). Engaging

visuals were emphasised, as a nurse explained: "*Something like that with lots of pictures… not like diagrams… because that then gets a bit too anxiety-provoking*" (S08). However, participants acknowledged a shortage of resources for younger children. A social worker pointed out: "*Books that you tend to have are written for teenagers… there's nothing out there for littlies that says… sometimes mum might be like this*" (S10).

Subtheme 3.2: Addressing Children's Concerns and Misconceptions

Both parents and professionals highlighted that clear, two-way dialogues may help children manage emotions like worry, guilt, and the caregiving burden associated with parental BD. Open communication was seen as key to preventing children from feeling responsible for their parents' condition. A father with BD stated: "*I always try to say that it's not about you. I'm not depressed because of you. And that it's not their fault, so [I'm] trying to explain the triggers without making them worry about me or blaming themselves*" (P05). Addressing children's fears about the severity of BD was also perceived as crucial by a charity worker: "*They [the children] look up bipolar and see it's got the highest suicide rate of any condition… they might think you're going to die. Every time you go out, they might be worried about you… I think you need to face those things and decide how you are going to do it… in a very thorough way*" (S07). One father discussed clarifying misunderstandings, such as confusing physical illness with BD: "*The slightest hint of illness will make her [the child] very worried… if [the mother with BD] has COVID and is in bed for a day, that associates with 'Mummy's really*

depressed'," said another father (P10). He also addressed children's fears about inheriting BD: "*[My child] thinks that if I don't sleep well for a night, I might end up… being carted off into hospital against my will… I explained that if you have an illness called bipolar, and then you go without sleep, it can make you look like this [relapse]… if someone who doesn't have that condition [BD] goes without sleep, they don't have any problems*" (P10). Discussing genetic risks requires reassurance, as a charity worker added: "*It's important to make that clear… you're probably not going to have this [BD], but even if that was the case, we as a family know an awful lot about it, we can support you*" (S07).

Subtheme 3.3: Reassuring Consistent Love and Personality

Parents and professionals both highlighted the importance of instilling hope in children by emphasising that BD episodes are temporary and treatable. One mother explained that her son needs "*someone to assure him that … it will get better … the situation, or the father [with BD]*" (P09). Participants emphasised the consistent nature of parental love, as a social worker explained: "*Mum's got something going a bit kooky in her mind… it makes her do some strange things sometimes, [but it] doesn't stop her loving you*" (S10). Showing that parents continue to make efforts, even during BD episodes, may reinforce this message. A peer support group facilitator remarked: "*Even when someone is down, they are there for you just in their own way and in the best that they can do that day*" (S05).

Reassuring children about the continuity of personality amid BD's impacts was perceived as essential by parents. One father observed how children may struggle to distinguish between their parent's normal emotions and those tied to BD: "*If she [the mother with BD] gets a little excited… feels a bit down, or gets cross, there will be three people in the family thinking, 'Oh, is this the start of an illness episode?'*" (P10). This blurred line between typical behaviour and BD symptoms can be confusing for children. A mother suggested helping children "*recognise which elements of him [the father with BD] are driven by the bipolar and which elements of him are just him*" (P03). Another mother used a nickname for her BD: "*I call my bipolar Betty… it's separate from me… a part of me, but she's not who I am. It just made more sense to explain it to a child in that way… it's not his mum. I'll just say, I feel like I'm Betty. Betty's really like taking over at the minute*" (P04). This approach might help children understand that while BD affects their parent, it doesn't define who they are.

Subtheme 3.4: Preparing and Supporting Children for Future BD Episodes

Given BD's episodic nature, both parents and professionals stressed the importance of preparing children for future episodes to foster resilience and provide a sense of control over the situation. One father with BD explained how he prepared his son for potential mood changes: "*I explained to him [the son] what might happen… make sure he's informed about how I feel and then say to him… don't worry about it too much if I react this way, which is my illness [BD]*" (P01). A charity worker advocated for proactive planning, encouraging parents

to think through difficult scenarios and explain these plans to their children: "*Think through scenarios that you don't want to think about… if I go into hospital, what happens to my child… If it's actually written down, and you explain it to them… children are not going to be so worried*" (S07). A mother with BD further highlighted the need for maintaining appropriate boundaries, stating that children's role should be supportive, not caregiving, when parents are unwell: "*I never want my children to feel it's their job to look after me*" (P11).

Parents acknowledged the value of helping their children understand their emotional needs during BD episodes. A mother sought to help her children recognise and interpret their father's needs during his BD episodes: *"They need to learn to understand… when he [father with BD] is unwell… much more kind of extreme. It's basically him saying… 'I'm unwell, I don't want to be bothered by you, leave me alone and let me be', so it's about recognising"* (P03). However, a father with BD cautioned against portraying the disorder to children as something uncontrollable, urging parents to avoid "*over-medicalising it, like, this is something that just happens out there, nothing can be done"* (P05). Instead, he emphasised the importance of expressing his emotional needs during an episode and encouraging his children to offer simple forms of support without making them feel responsible for his care: " *It's just giving me a cuddle, or… encouraging me to come out, or do something fun when I'm down… how the child can help you… [so they] doesn't feel like you have to look after and end up being a*

carer… almost like a relapse prevention plan for both of you… 'If daddy's unwell, I can do this'" (P05).

Theme 4: Principles of Communication about BD

This theme explores strategic principles that parents with BD may apply to communicate effectively with their children. It focuses on determining the optimal timing, selecting the appropriate level of detail, and adopting a clear and interactive communication style. The theme also examines the roles that family members and professionals can play in facilitating these crucial discussions.

Subtheme 4.1: 'How to Communicate' - Transparency and Two-Way Conversation

Both parents and professionals recognised that parents sometimes use oversimplified or vague language when sharing information about BD with children due to uncertainties about how much to share. However, they also recognised that children can sense when something is wrong, and incomplete communication may raise anxiety. A psychiatrist explained: "*They [children] obviously understand something is wrong… not telling them what exactly it is, is just going to raise anxieties*" (S12). Some parents, who had not understood their own parents' illness, felt a strong motivation to be transparent with their children. One mother with BD shared: "*I grew up with my mum who had schizophrenia and I, in some ways, didn't understand her illness. So I used to look after her and felt sad for her but not fully understanding why. I*

never want my children to feel this way" (P11). Participants emphasised that while honesty is important, information should be delivered with sensitivity to the child's emotional readiness and level of understanding. A charity worker noted: "*I think usually honesty is the best policy, but sometimes it's about finding the right time… finding the right words, and answering questions and being available... just to make things as non-threatening as possible... they need to understand what it is they might have to deal with*" (S02).

Parents and professionals also highlighted the value of fostering a two-way conversation in which children feel safe enough to ask questions. A social worker noted: "*I think it's not just the description of what the mental health presentation is; I think it is what the parent enables in the relationship—that you can talk to me. Even though these are difficult questions, I'm here and I'm able to listen... there's something quite reassuring in knowing that I've got this worry, I've got this concern, and if I say it out loud, my parent is going to help me sort it out and give me back some information that is reassuring... The child is able to know that it's safe to talk about their feelings and have them validated*" (S09). Participants observed that children often have questions about their parents' BD, and it's important for parents to address these concerns. One mother with BD shared: "*They [children] have asked about my medication, like, 'What does it do?'… And they do ask... why sometimes I do certain things and why sometimes I don't*" (P06). A father whose partner has BD added: "*He [the child] asks very probing questions and just keeps going with the questions... you've kind of got to go with what*

they feel they need" (P10). Although parents might worry about providing the wrong answers or whether their children are ready for certain information, one mother shared her approach: "*Have the conversation led by the children, and just answer to the best of my ability, and try not to be scared of answering difficult questions… If you've asked the question, then you're old enough to listen to an answer*" (P03).

Subtheme 4.2: 'When to Communicate' – Timing and Context Consideration

Parents and professionals had varied opinions on when to communicate about BD, often influenced by the child's ability to understand. One father with BD noted: "*Being 12 and 10, they would have a fairly reasonable amount of understanding"* (P07). Some parents waited for signs of maturity, as a charity worker explained: "*What age should I tell them… I think that's very individual… one [child] can be very mature at five or six, and another might not be until they're 10*" (S07). Others waited until BD symptoms became noticeable, with a mother with BD stating: "*I now discuss bipolar quite openly with my children as it has an impact on everyone, not just me*" (P11). Conversely, some participants felt that adults often underestimate children's understanding. A psychiatrist shared: "*Children often know more [about parental BD] than you think they know" (S06).* As a result, some parents favoured early communication**,** tailoring explanations to the child's level. One mother with BD likened it to sex education, saying: "*They [children] are never too young, but there's always a level you can explain it at*"

(P08). A partner of a father with BD added: "*I would not put an age limit on it [communication]… to avoid a surprise moment later in life"* (P09).

Parents and professionals identified emotional stability, preparation, and natural opportunities as key factors for effective communication. A social worker highlighted the need for stable moments for safe discussions: "*The challenge is if they [parents with BD] are in a high phase or a low phase, actually that pressure on them, when you're trying to make somebody else feel better about what's going on for you, it's impossible… [Disclosure is] really triggering anxiety if … they're trying to talk to you about what's going on for them*" (S10). Careful planning was also recommended, with a charity worker suggesting: "*I think an important thing is to put a lot of thought into it, you know, to really think about it and have enough time to really sit down and have a long [conversation]… Plan in your head how you can say reassuring things… like… doing an advance statement or directive*" (S07). Participants noted that natural occasions, like media or daily interactions, could ease the conversation. A charity worker shared: "*We'd seen the character on EastEnders, and they [children] said… 'What's the matter with her [the character with BD]?' and we talk about it [BD]… seeing them on the screen gives you an opportunity to bring the subject up,*" one charity worker observed (S07). Schoolwork also provided openings for discussions, as one father with BD noted: "*[Children's] homework diaries had the symptoms of depression… so we talked about it*" (P05). A mother with BD used her academic assignments to educate her children: "*I practised [a BD*

presentation] with my two kids… It was 'Can you help me with my schoolwork?', but also giving them that information at the same time" (P06).

Subtheme 4.3: 'Who Should Communicate' – Family and Professional Support

Involving other family members in sharing information about BD was seen by parents and professionals as important but challenging. Some participants preferred to explain the condition jointly with their partner. One father with BD shared: "*We would have sat down together, my wife and I, and explained the whole thing*" (P07). During crises, participants noted that "well" parents often took the lead in providing explanations, though they faced the urgency and difficulty of these situations. A father whose partner has BD described: "*Suddenly it's [mood episode] all happening, and I'm having to explain what is happening rather than being able to take my time explaining it in small chunks… before I'd been able to remove them [the children], they'd seen some really upsetting stuff, and I had to explain that in the context, it was really hard*" (P10). How family members frame a BD episode can shape a child's understanding and emotional response. A psychiatrist noted: "*How they [children] react would depend on the people around them. If they have a sympathetic relative who explains that mummy is really unwell… versus somebody saying, 'Oh, mummy was a bad person, she's been taken away'… So it does depend on the extended family around them*" (S12).

Professionals shared their experiences in assisting parents with BD to communicate their condition to their children, either by helping them prepare or guiding them during the conversation. One social worker explained: *"[Helping parents] think through their fears… and have them heard and validated so that they can then do it for their children"* (S09). Some professionals took the lead in communicating with children, much like they would in psychoeducation sessions for children. A social worker described initiating these talks: "*I can pop you [children] some appointments… let's sit them down… What do you want to know, how can we make this open and inclusive?*" (S10) Participants noted that professional involvement varied based on the child's circumstances and the parents' level of willingness. The social worker emphasised the need for flexibility: *"Depending on… the age of the child, the demographics… the ability of the child to understand, and how much the parent is involved or wants you [the therapist] to be involved*" (S10). She further stressed the importance of coordinating between adult and child mental health professionals: "*There might already be a team around the child… let's go into this [conversation] together… a trusted children's colleague and me*" (S10).

Comparative Analysis of Thematic Contributions

While all subthemes incorporate perspectives from diverse roles, a comparative analysis of parents' (parents with BD and non-bipolar partners) and stakeholders' (professionals and charity workers) accounts highlights both shared and distinct perspectives

on communicating about BD with children. Parents uniquely emphasised leveraging personal and familial experiences to tailor communication strategies, evident in their use of personalised language for age-adaptive communication (Subtheme 3.1), efforts to help children distinguish personality and typical behaviours from BD while reinforcing continuity (Subtheme 3.3), insights into future episode preparedness by avoiding overmedicalisation, expressing emotional needs, and empowering children to help (Subtheme 3.4), and motivation driven by their own childhood experiences of non-transparent parental mental health communication to foster openness with their children (Subtheme 4.1). Among parents, non-bipolar partners did not tend to refer to communication advantages and challenges (Themes 1 and 2), likely prioritising practical strategies and support (Themes 3 and 4) due to their caregiving role for children and partners with BD. Conversely, stakeholders focused on the systemic and external factors that influence communication, highlighting the importance of support systems and social dynamics in addressing emotional and practical challenges, as exemplified in their recognition of honest dialogue to reduce children's isolation (Subtheme 1.2), identification of complexities when both parent and child have mental health issues (Subtheme 2.1), acknowledgment of community stigma as a barrier (Subtheme 2.2), and emphasis on professional involvement, flexibility, and coordination in facilitating communication (Subtheme 4.3). However, most codes reflected the views of both groups, and the overall thematic structure was not dependent upon the small number of unique perspectives that were

shared. This synthesis underscores the complementary nature of parents' experiential insights and stakeholders' systemic perspectives, enriching the thematic structure.

6.4 Discussion

This study explored how parents with BD communicate with their children about their condition, drawing from the experiences and perspectives of parents with BD, their partners, charity workers, and mental health professionals. Through thematic analysis, four themes were generated, reflecting the complexities of this communication process. Participants shared that openly discussing BD with children had benefits, such as improving children's understanding, reducing anxiety, and strengthening family bonds as well as trust. However, they also noted significant challenges, including struggles with self-acceptance, fears of being judged, and uncertainties about how much to share while protecting their children from distress. Participants emphasised the importance of using age-appropriate language and materials, addressing concerns and misconceptions, reassuring children of their parent's consistent love and identity, and preparing them for future episodes with coping strategies and support networks. Transparent, interactive communication, thoughtful timing, and collaboration with family members and professionals were highlighted as key to tailoring the process to each family's needs. These insights offer a practical roadmap for navigating the complexities of sharing parental BD, building on earlier chapters to provide essential guidance for developing supportive resources to facilitate these conversations effectively.

Communicating a parental diagnosis of BD to children involves balancing potential benefits and risks. This communication was perceived to provide emotional relief by helping children better understand their parent's condition (**Subtheme 1.1**), but concerns were also raised that the emotional burden might overwhelm them (**Subtheme 2.1**). Some participants noted that effective communication strengthened parent–child bonds (**Subtheme 1.2**), while others expressed worries that it could negatively affect children's perceptions of their parental roles (**Subtheme 2.2**). These contrasting experiences underscore the need for more research on the emotional and relational impacts of these conversations and how to optimise them. Currently, no specific intervention exists to support families discussing parental BD, but insights can be drawn from other illness-related interventions. For example, the Family Talk Intervention, which helps parents communicate about depression, has been found to significantly improve children's mood and anxiety symptoms (Solantaus et al., 2010). Likewise, interventions for families facing parental HIV and cancer have shown positive effects on children's emotional well-being (Betancourt et al., 2017; Murphy et al., 2011; Rotheram-Borus et al., 2001; Thastum et al., 2006) and parent–child relationships (Rochat et al., 2017). However, caution is warranted in attributing positive outcomes solely to improved parent–child communication, as other elements of the treatment—such as psychoeducation and professional support in preparing and reviewing the parent–child conversations within the Family Talk Intervention—may also have contributed. Overall, existing interventions aimed at enhancing

parent–child communication about parental illness generally show positive results. The findings of this chapter, particularly in **Subtheme 4.1**, suggest that challenges may arise from "incomplete or insensitive communication," which can lead to "partial comprehension or misconceptions" in children. Therefore, it is crucial to develop interventions tailored to the specific needs of parents with BD and their children, working closely with families to support effective and sensitive communication.

To develop a sensitive and suitable intervention for families affected by parental BD, it is crucial to address the unique communication challenges in this context. First, comparing these findings with literature on life-threatening physical diseases reveals distinct difficulties in communicating about severe mental illnesses with children. Severe mental illnesses often manifest through emotions and behaviours, blurring the distinction between the illness and personal identity (**Subtheme 3.3**). This can lead individuals to feel overly responsible for the consequences of their illness, potentially fostering guilt and self-doubt, as seen in previous studies with parents with BD (Anke et al., 2019; Davison & Scott, 2018; Wilson & Crowe, 2009). Additionally, societal perceptions may lead others to hold parents with BD accountable for their condition, contributing to stigma and mistrust (**Subtheme 2.2**). Similar issues of guilt and external judgement are noted in parent–child communication studies on other parental disorders like unipolar depression (Pihkala & Johansson, 2008), psychosis (Strand & Meyersson, 2020), and substance abuse (Pihkala et al., 2017). Next, combining the current

findings with the meta-synthesis presented in Chapter 3, it is evident that BD may involve greater unpredictability and inconsistency in parenting practices than other mental illnesses, likely making it difficult to separate the illness from the parent's identity, thereby complicating understanding and communication. In conclusion, effective communication about parental BD involves helping children differentiate between the illness and the parent, maintaining love and trust and supporting the restoration of the parental role. Flexibility and customisation in the timing, setting, participants, and materials used in communication are necessary to accommodate BD's fast-changing nature.

My comparative analysis integrates parents' lived experiences and stakeholders' systemic insights to explore how families discuss parental BD with children. By situating my findings within broader literature on communicating parental mental illnesses to children—including interviews with parents across various diagnoses (Rapa et al., 2024), non-affected partners (Ballal & Navaneetham, 2018), and adult mental healthcare professionals (Dalton et al., 2024)—I highlight experiences tied to BD's episodic and mood-driven nature that may be particularly prevalent in BD families. Compared to Rapa et al. (2024), parents in my study emphasised reassuring their children of their consistent love and that they will return to being the parent they usually are when they recover from a BD episode, and preparing them for future episodes during stable periods. In contrast to Ballal & Navaneetham (2018), non-BD partners in this study noted that abrupt mood shifts in parents with BD can challenge children's abilities

to process and adapt to parental BD, compounded by the ill parents' avoidance of discussing their condition, often leaving the non-affected partner solely responsible for communication, heightening their emotional burden. While Dalton et al. (2024) also underscored professional involvement and coordination, stakeholders in this study highlighted communication difficulties when both the parent and the child experience mental health challenges and the loneliness children may feel due to the unique and often hard-to-explain dynamics of living with a parent with BD, observations which are less evident in studies of broader mental illnesses (Chen et al., 2021, 2023; Rapa et al., 2024).

These findings must be interpreted in the context of several limitations. The predominantly well-educated, co-parenting, White participants from South England limit the generalisability of the findings to more diverse educational, socio-economic, racial, and regional groups across the UK. Additionally, all the participating parents had a child in a specific age group who had experienced anxiety issues, which may limit the applicability of the findings to families without significant psychological problems in children. It also raises questions about how these issues might evolve during adolescence and the transition to adulthood. The reliance on self-reported data may also introduce recall bias, as some participants reflected on experiences with older children, potentially skewing the accuracy of recalled interactions. However, this retrospective perspective can also provide deeper insights into past parenting practices. A notable limitation is the exclusion of children's perspectives, as

this chapter gathered insights solely from parents and support providers, without triangulating these perspectives with children's views. This could potentially overlook critical nuances in family dynamics, particularly differing perceptions between parents and children (Strand, 2020). Furthermore, the study population and thematic structure may be biased towards families who are already open about BD, as eligibility required the willingness and ability to share BD-related parenting experiences. This may over-represent participants who are comfortable with disclosure, potentially underestimating the challenges for those who are less inclined or able to communicate about BD. These limitations underscore the need for more inclusive research that captures broader familial perspectives and readiness levels to fully understand the complexities of communicating about BD.

6.4 Conclusions

This chapter underscores key elements and principles in supporting parent–child communication about parental BD. Effective communication of parental mental health diagnoses has been shown to foster understanding, improve relationships, and enhance children's mental health. Chapters 4 through 6 collectively reveal that parents with BD possess valuable resources and key areas of support in their parenting practices, in managing their children's anxiety, and in discussing their condition with their children. These findings highlight the significance of parent involvement in interventions for offspring at high risk of BD, as it leverages parental strengths to address familial challenges. Building on this, Chapter

7 explores existing parent- and family-focused interventions designed for children at familial risk of BD. By systematically reviewing their effectiveness and acceptability, the next chapter aims to identify evidence-based strategies that address broader family and child mental health outcomes, offering a bridge from the qualitative insights of these chapters to actionable clinical solutions.

Chapter 7: Parent and Family-Focused Interventions for Children at Familial Risks of Bipolar Disorder: A Systematic Review

7.1 Introduction

Chapters 4 to 6 collectively underscore the active role that parents with BD take in shaping their children's well-being despite their own challenges, highlighting support needs and practical strategies in parenting practices, managing child anxiety, and discussing BD with children. These insights establish a foundation for interventions to support parents to address the unique challenges faced by offspring at familial risk of BD. Building on this qualitative groundwork, Chapter 7 provides a systematic review of existing parent- and family-focused interventions designed for children at heightened genetic risk of BD, defined here as offspring with at least one first- or second-degree relative diagnosed with BD (henceforth referred to as "at-risk" children). This broader definition was adopted due to limited research in this area that specifically focuses on children of parents with BD. It enables us to include more studies to assess intervention efficacy comprehensively, while also allowing for comparisons between offspring of parents with BD and other genetically high-risk children where data permit.

Existing research on interventions for at-risk populations for BD suggests that psychotherapeutic approaches are preferred over pharmacotherapies, the latter being limited by minimal efficacy and potential adverse effects, such as weight gain, sedation, and metabolic syndrome (Saraf et al., 2021). In the context of at-risk offspring, family interventions appear more consistently beneficial than child-focused approaches. While group cognitive behavioural therapy (CBT) (Leopold et al., 2020), interpersonal social rhythm therapy (IPSRT) (Goldstein et al., 2018), and mindfulness-based cognitive therapy (MBCT) (Cotton et al., 2020) have not reliably reduced affective symptoms in at-risk youth, family psychoeducational therapies have demonstrated efficacy in alleviating depressive (though not manic) symptoms (Fristad et al.,

2015). Notably, family-focused therapy (FFT) has been associated with a delayed onset of new mood episodes and improvements in internalising symptoms, indicating that family involvement can significantly influence developmental trajectories (Miklowitz et al., 2020b). These findings align with broader meta-analytic evidence from interventions for children of parents with various mental illnesses, which shows that whole-family approaches enhance communication, reduce stigma, and foster greater emotional understanding (Moltrecht et al., 2024). While individual studies highlight the potential of these interventions, a comprehensive synthesis specific to at-risk offspring has not been conducted, underscoring the need for this review.

Parent- and family-focused interventions for at-risk offspring differ in their scope, methods, and levels of child involvement. Parent-focused interventions aim to enhance parenting skills, parents' emotional regulation, and/or parent–child interactions. By training parents to apply evidence-based techniques in daily routines, these interventions empower them to create a nurturing environment, benefiting children's mental health (Jewell et al., 2022). In contrast, family-focused interventions treat the family as a unified therapeutic entity, engaging parents, children, and other caregivers to improve dynamics, communication, problem-solving, and emotional expression. By changing the family environment, these approaches aim to foster mutual understanding, support, and lasting positive outcomes (Peris et al., 2021).

Despite their potential to create supportive environments that help children at familial risk for BD cope with increased risks of psychopathology and disrupted family dynamics (Menculini et al., 2020), no systematic review prior to this thesis has specifically evaluated parent- and family-focused interventions for this vulnerable group. A crucial consideration is the acceptability of these interventions (i.e., how well families tolerate and engage with them),

as parents' sustained participation can be particularly impacted by BD symptom instability and negative past experiences with mental health services (Chapter 5). This chapter addresses this gap by synthesising evidence on both the efficacy and acceptability of parent- and family-focused interventions, aligning with the need to assess their real-world feasibility and potential uptake into clinical practice.

The chapter also explores the mechanisms driving their outcomes (mediating factors) and the conditions under which they are most effective (moderating factors). Research on broader populations highlights caregiver stress (Miller et al., 2023), family communication (Molleda et al., 2017), and perceived social support (Cluver et al., 2016) as key mediators linking family-focused interventions to changes in child mental health, prompting an investigation into specific family or parent–child factors in this context. Furthermore, broader reviews identify child age and mental health conditions (e.g., comorbidities), treatment delivery (group vs individual) and therapist support as potential moderators affecting treatment outcomes in preadolescent children with anxiety disorder (Creswell et al., In Review) and in high-risk offspring for BD (Saraf et al., 2021), leading to an examination of their role here. By comparing different types and contents of parent- and family-focused interventions through the lenses of efficacy, acceptability, mediation, and moderation, Chapter 7 seeks to delineate their clinical relevance and inform the development of more effective, practical, family-centred strategies. Ultimately, these findings aim to support clinicians and policymakers in adopting evidence-based practices that better support families navigating the complexities of BD.

7.2 Methods

Eligibility Criteria

This chapter adheres to the PRISMA (2020) guidelines and was prospectively registered with PROSPERO (registration number: CRD42022352228). The research question

was structured using the PICOST framework, as outlined in **Supplement 7.1**. This study included only original, peer-reviewed journal articles, specifically clinical trials and cohort studies. Eligible study designs encompassed controlled trials (randomised or non-randomised) with a comparator group, as well as cohort studies (prospective or retrospective) with or without a comparator group. No restrictions were placed on language. The target population consisted of children aged 0–18 years at elevated genetic risk for BD, defined as having at least one first- or second-degree relative diagnosed with BD, but who did not themselves meet diagnostic criteria for BD. Included studies examined psychological interventions delivered as part of treatment for these high-risk children. Interventions were required to be either parent-focused, targeting the parents of high-risk children, or family-focused, involving parents, high-risk children, and/or other caregivers. Eligible studies were required to report changes in emotional and/or behavioural symptoms in high-risk children, measured pre- and post-intervention using validated assessment tools. For primary RCTs meeting inclusion criteria, post-hoc analyses of secondary outcomes—such as child functioning, parenting or family outcomes, and intervention acceptability—were also considered. Further details of the eligibility criteria are provided in **Supplement 7.2**.

Literature Search

A comprehensive search of relevant literature was conducted across Medline, Embase, PsycINFO and the Cochrane Central Register for Controlled Trials, including studies published up to December 13, 2024. The search strategy was designed to capture studies focusing on the key concepts: ‘parents’, ‘bipolar disorder’, ‘offspring’ and ‘interventions’, and relevant ‘study designs.’ A detailed breakdown of the search terms and strategy is provided in **Supplement 7.3**. Additionally, three supplementary searches were performed to ensure thorough coverage: (1) reference lists and citation tracking through Web of Science for all eligible records, (2) reference lists of all relevant review articles that included eligible studies, and (3) the names of

corresponding authors and first authors from all eligible records were used as keywords in PubMed to search for all their publications related to BD.

Data Screening

The screening process was conducted independently by an undergraduate psychology student (RP), trained in systematic review methodology, and me. RP and I initially reviewed the titles and abstracts of all records retrieved from the database search, as well as those identified through reference and citation searches. Subsequently, a full-text review was performed to determine study eligibility, with reasons for exclusion systematically documented (see **Supplement 7.4**). Discrepancies at each stage were addressed through discussions between RP and I, and, when necessary, my supervisor, an expert in clinical psychology, was consulted to reach a consensus. In instances where eligibility remained unclear due to insufficient information, contact was made with the corresponding authors of the studies for clarifications.

Data Extraction

As outlined in **Supplement 7.5,** I independently extracted and coded key study details, including trial information (e.g., first author, publication year, country, study design, and recruitment methods), intervention characteristics (e.g., delivery type, treatment and control conditions, treatment content, duration, and timelines), and participant demographics (e.g., age, gender, ethnicity, sample sizes, and mental health conditions of parents and offspring). I extracted child outcomes, including diagnostic measures (e.g., remission duration), symptomatic measures (e.g., mean symptom scores), and child functioning, as well as parental and family outcomes and acceptability outcomes (e.g., treatment attendance, dropout rates). For mediation analyses, I systematically extracted results that explicitly evaluated mediation pathways involving child psychopathology and parental or parent–child variables as either

mediators or outcomes. Specifically, mediation analyses were included if they examined at least one of the following pathways:

1. Intervention → Parental or parent–child variables → Child psychopathology outcomes
2. Intervention → Child psychopathology variables → Parental or parent–child outcomes
3. Intervention → Parental or parent–child variables → Parental or parent–child outcomes
4. Intervention → Child psychopathology variables → Child psychopathology outcomes

I also extracted data on potential moderators, such as child age, baseline severity, comorbidities, treatment delivery (e.g., group vs individual, in-person vs online), and therapist support intensity (e.g., presence and frequency of support). All extracted data were systematically organised in Microsoft Excel. Discrepancies were resolved through joint discussions, and individual datasets were subsequently merged into a finalised spreadsheet.

Quality Appraisal

The quality of included studies was evaluated independently by RP and I using established tools: the revised Cochrane Risk of Bias tool (RoB-2) for randomised controlled trials (RCTs) (Sterne et al., 2019) and the Risk of Bias in Non-Randomised Studies of Interventions (ROBINS-I) for non-randomised and cohort studies (Sterne et al., 2016). Discrepancies between the reviewers were resolved through discussion until agreement was reached. For RCTs, five domains of risk of bias were assessed: (1) the randomisation process, (2) deviations from the intended intervention, (3) handling of missing outcome data, (4) measurement of outcomes, and (5) selection of reported results. Each domain was assigned a risk level of "low", "high", or "some concerns," and an overall risk of bias was determined for each trial. For non-randomised studies, additional domains were considered, including confounding factors, participant selection, and intervention classification. These domains were

evaluated using the categories “low”, “moderate”, “serious”, “critical”, or “no information,” with an overarching risk of bias score derived accordingly.

Data Synthesis

Due to considerable heterogeneity across studies—stemming from variations in offspring age (primary school-aged children vs adolescents, with ages ranging from 3 to 18 years), mental health status (no diagnosis vs non-bipolar mood disorders), and intervention type (ranging from brief psychoeducation and unsupported online training to intensive parent–child programmes)—a meta-analysis was considered to be unfeasible. Instead, I employed a qualitative synthesis and descriptive comparisons to evaluate findings across three key domains:

1. Child psychopathology outcomes (e.g., emotional and behavioural symptoms)
2. Parenting and family outcomes (e.g., parenting stress, family functioning parent–child interactions)
3. Intervention acceptability (using proxies such as retention rates and session attendance)

As none of the included studies directly measured participant satisfaction, likely due to the primary studies’ focus on efficacy rather than user experience, retention and engagement metrics served as proxies for acceptability outcomes. Retention rates reflect intervention tolerability, while engagement indicators—such as session attendance, module completion, and material use—suggest perceived value. Analysis focused on in-treatment engagement (e.g., session attendance, treatment dropout) and post-treatment retention to infer acceptability.

Cohen’s d was used to quantify intervention effects, extracted directly from original studies or calculated from provided data when necessary. Its magnitude was interpreted as minimal ($|d| < 0.2$), small ($|d| = 0.2 – 0.5$), medium ($|d| = 0.5 – 0.8$), or large ($|d| > 0.8$)

(Sawilowsky, 2009). For continuous outcomes (e.g., remission duration), d was derived from means and standard errors (converted to standard deviations via $SD = SE \cdot \sqrt{n}$) using $d = \frac{M1-M2}{SD_{pooled}}$ (Higgins et al., 2024). For binary outcomes (e.g., severe suicidal events or conversion to BD), Cohen's d was calculated from χ^2 statistics using $\phi = \sqrt{\frac{\chi^2}{N}}$ and $d \approx \frac{2\phi}{\sqrt{1-\phi^2}}$ (Borenstein et al., 2011). For event-based survival outcomes (e.g., time to suicidal events), hazard ratios (HR) were reported directly as the effect size. For studies reporting slopes of change via linear regression, a t-statistics ($t = \frac{Est}{SE}$) was converted to d using $d = t \cdot \sqrt{\frac{n1+n2}{n1 \cdot n2}}$ (Lipsey & Wilson, 2001). This method assumes accurate handling of repeated measures and missing data; thus, results should be interpreted cautiously. For ANOVA-based outcomes, partial eta squared (η_p^2) was computed as $\eta_p^2 = \frac{F \cdot df_{effect}}{F \cdot df_{effect} + df_{error}}$, then converted to d via $d = 2 \cdot \sqrt{\frac{\eta_p^2}{1-\eta_p^2}}$ (Lakens, 2013). When the total sample size (sum of both arms for between-group differences or a single arm for within-group differences) was ≤ 50, Hedge's g was additionally calculated and presented in footnotes to Table 7.3 and parentheses in Table 7.4. However, because Hedge's g yielded values nearly identical to Cohen's d—and d facilitated direct comparison across studies with differing sample sizes—this chapter primarily reports Cohen's d.

To explore mechanisms of change, I conducted a study-level mediation analysis to investigate whether intervention effects operated through changes in parental/parent–child or child psychopathology outcomes. The four mediation pathways (listed above) were considered, explicitly acknowledging the complex and potentially bidirectional relationships between family/parental and child variables.

In addition, moderation analyses examined factors influencing intervention efficacy and acceptability, guided by broader reviews (Creswell et al., In Review; Saraf et al., 2021). I analysed the influence on treatment response of: (1) child age (e.g., younger children vs adolescents); (2) child baseline severity and comorbidities; (3) treatment delivery, comparing group vs individual or in-person vs online; and (4) therapist support intensity, evaluating the impact of support presence and frequency.

7.3 Results

7.3.1 Study and Participant Characteristics

The systematic review identified 12 studies (7 trials) with 442 unique participants. **Figure 7.1,** the PRISMA flow diagram, outlines the screening process and is provided below. Of 45 full-text records assessed, 10 met inclusion criteria, with 2 added via citation searches. **Table 7.1** summarises study characteristics, showing that most studies (11 of 12) were conducted in high-income Western countries (USA, Canada, UK), with White populations ranging from 68% to 95%; one study was conducted in Turkey.

Nine studies used family-focused interventions: Family-Focused Therapy High-Risk Protocol (FFT-BD) with joint parent–child sessions (one open-label study, two RCTs, and four post-hoc analyses) (Miklowitz et al., 2011; Miklowitz et al., 2013; Miklowitz et al., 2020a; Miklowitz et al., 2020b; Miklowitz et al., 2022; Weintraub et al., 2022; Weintraub et al., 2020) and the Reducing Unwanted Stress in the Home (RUSH) programme with parallel group sessions for parents and children (two quasi-experimental studies) (Resendes et al., 2023; Serravalle et al., 2021). Others adopted parent-focused approaches: the Web-Based Positive Parenting Program, later refined into the Integrated Bipolar Parenting Intervention (IBPI), both delivered online without therapist support in the UK (two RCTs) (Jones et al., 2014; Jones et al., 2017), and a single-session parent-only psychoeducation programme conducted in Turkey

(1 RCT) (Besenek, 2020). These interventions mainly cover middle childhood, with some extending to early childhood and adolescence.

Participants, aged 3 to 18 years at enrolment, were at high risk of BD, split into two groups. The first included children with at least one parent with BD, some showing non-mood related difficulties, like behavioural or anxiety disorders, as reported in Besenek (2020), Jones et al. (2014), Jones et al. (2017), Serravalle et al. (2021), and Resendes et al. (2023). The second comprised adolescents with a broader family history (first- or second-degree relatives with BD) and non-bipolar mood disorders (e.g., MDD, BD-NOS), examined in Miklowitz et al. (2011), Miklowitz et al. (2013) and Miklowitz et al. (2020b). In Miklowitz et al. (2013), 95% were offspring of parents with BD, while in Miklowitz et al. (2020b), 85% were offspring of a first-degree relative (primarily parents with BD). The sex of the children was reported in all but Jones et al. (2017), with females ranging from 33.3% to 64.6%. Family intactness ranged from 41% (Jones et al., 2014) to 70% (RUSH studies). Recruitment drew from specialised clinics, charities, communities, or mixed sources.

Table 7.1. Sample and Programme Characteristics (N = 12)

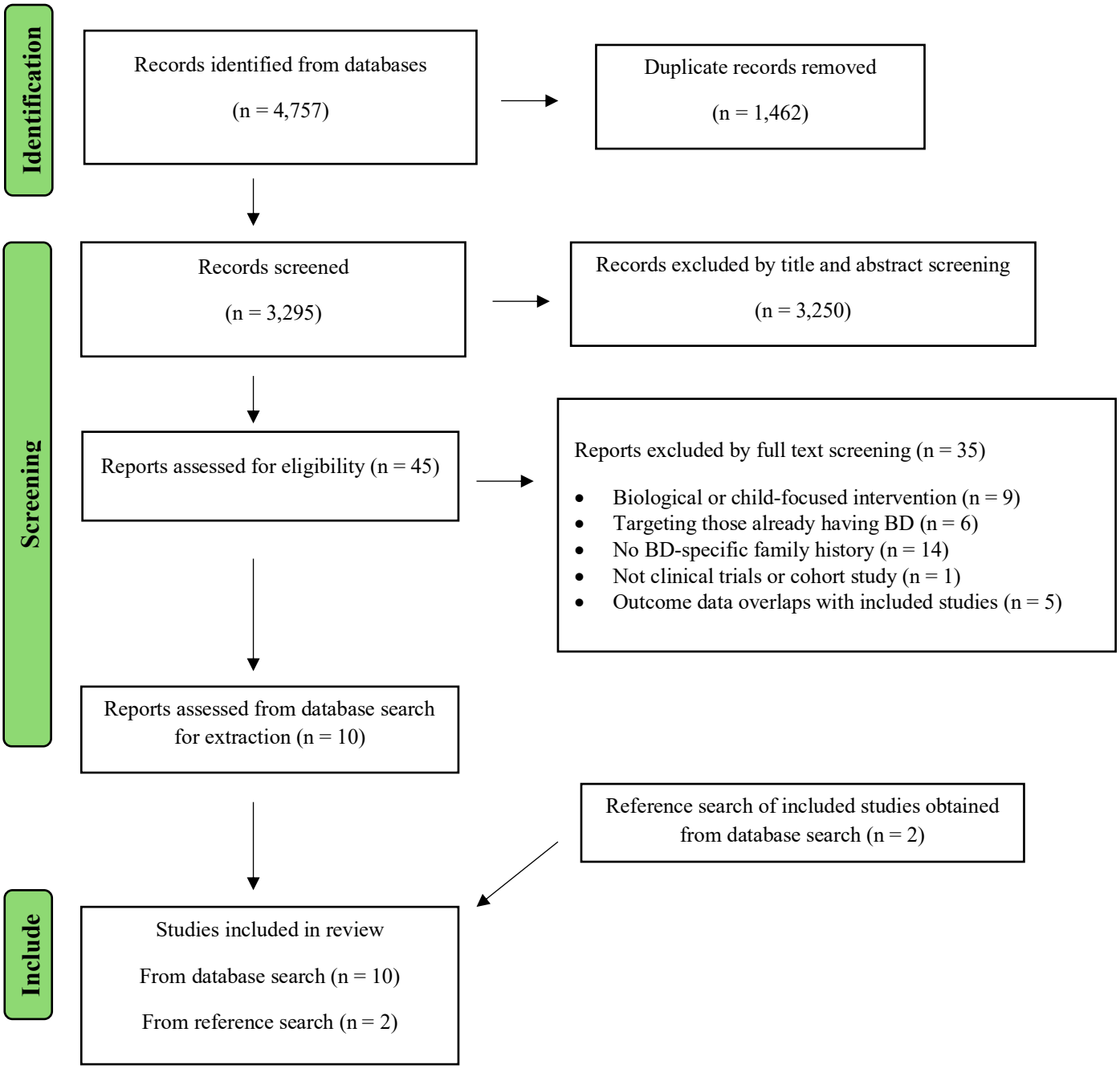
First author, country	Study design	N	Age range (mean)	% Female	High-risk	Treatment arm	Control arm	Child outcomes	Parenting or family outcomes	Parental outcomes	Treatment duration (weeks)	F/U (months)
Besenek (2020), Turkey	RCT	60	11-18 (14.32)	38%	Child of a parent with BD	Single-session psychoeducation and bibliotherapy (parent-only)	No treatment	CCSS-5 PedsQL	N/A	N/A	Single Session	3,6,9
Jones (2013), UK	RCT	39	4-10 (6.97)	34%	Child of a parent with BD	Web-based positive parenting program (parent-only)	Waitlist	SDQ	PS	MDQ CES-D ISS	10	2.5
Jones (2017), UK	RCT	97	3-10 (N/A)	N/A	Child of a parent with BD	IBPI (web-based self-management and parenting training; parent-only)	Waitlist	SDQ ECBI	PS3 PSOC PSI CHAOS	ASRM CES-D ISS HAM-D MAS	16	4, 6, 9, 12
Miklowitz (2011), USA	Cohort	13	9-16 (13.4)	69%	Youth with a parent with BD and active mood symptoms	FFT-HR (12 x 1hr session parent–child psychoeducation and skill building; family-focused)	N/A	PSRs (ALIFE) YMRS CDRS-R	N/A	BDI	16	Every 4 months for one year

Miklowitz (2013), USA	RCT	40	9-17 (12.3)	43%	Youth with a first-degree relative with BD and active mood symptoms	FFT-HR (12 x 1hr session parent–child psychoeducation and skill building; family-focused)	Education Control (1-2-session family education)	PSRs (ALIFE) YMRS CDRS-R	FMSS	N/A	16	Every 4 months for one year
Miklowitz (2020), USA[1]	RCT	127	9-17 (13.2)	65%	Youth with a first- or second- degree relative with BD and active mood symptoms	FFT-HR (12 x 1hr session parent–child psychoeducation and skill building; family-focused)	Enhanced Care (6-session family education and individual support)	PSRs (ALIFE) YMRS CDRS-R	N/A	N/A	16	Every 4 months in year one, then every 6 months up to 4 years
Serravalle (2021), Canada Resendes (2023), Canada	QE	66	6-11 (8.20)	48%	Child of a parent with BD	RUSH (12 x 2hr session parallel parent and child groups with psychoeducation and skills building; family-focused)	Unaffected families without intervention	BASC-2	Parent–child Interaction Paradigm PSI	N/A UCLA Life Stress Interview	12	3, 6, 9

Note: ASRM = Altman Self-Rating Mania Scale; **BASC-2** = Behaviour Assessment System for Children, Second Edition; **BD** = bipolar disorder; **CALS** = Children's Affective Lability Scale; **CBQ** = Conflict Behaviour Questionnaire; **CCSS-5** = DSM-5 Level 1 Cross-Cutting Symptom Scale; **CDRS-R** = Child Depression Rating Scale-Revised; **CES-D** = Centre for Epidemiologic Studies Depression Scale; **CGAS** = Children's Global Assessment Scale; **CHAOS** = Confusion, Hubbub and Order Scale; **ECBI** = Eyberg Child Behaviour Inventory; **FMSS** = Five-minute Speech Samples (measuring family expressed emotion); **IBPI** = Integrated Bipolar Parenting Intervention; **HAM-D** = Hamilton Depression Rating Scale; **MAS** = Bech-Rafaelsen Mania Scale; **MDQ** = Mood Disorder Questionnaire; **ISS** = Internal States Scale; **PedsQL** = Paediatric Quality of Life Inventory; **PSI** = Parenting Stress Index; **PSOC** = Parenting Sense of Competence Scale; **PSR** = Weekly Psychiatric Status Ratings; **PS3** = Parenting Scale; **RUSH** = Reducing Unwanted Stress in the Home programme; **QE** = quasi-experimental design; **RCT** = randomised controlled trial; SAS = Social Adjustment Scale–Self Report Short Form; **SDQ** = Strengths and Difficulties Questionnaire; **SIQ** = Suicidal Ideation Questionnaire; **YMRS** = Young Mania Rating Scale

[1] Post-hoc analyses on suicide risk (Miklowitz et al., 2020a; measured by PSRs, SIQ, and CBQ), mood and functioning trajectories (Weintraub et al., 2020; measured by PSRs and CGAS), mood instability (Miklowitz et al., 2022; measured by PSRs, CALS, CGAS, and CBQ), and psychosocial functioning (Weintraub et al., 2022; measured by PSRs and SAS) were also conducted.

Figure 7.1. PRISMA flow diagram for the systematic review process



Quality Assessment

The quality of the included studies was evaluated using the Risk of Bias 2 (RoB-2) tool for RCTs and the Risk of Bias in Non-Randomised Studies of Interventions (ROBINS-I) tool for non-randomised designs, with results summarised in **Table 7.2**. Using the RoB-2 assessment, Miklowitz et al. (2013) and Miklowitz et al. (2020b) were categorised as having a

low risk of bias, with their use of independent evaluators to assess weekly psychiatric status ratings, which minimised detection bias. In contrast, Besenek (2020), Jones et al. (2014) and Jones et al. (2017) were rated as having a high risk due to the unblinded status of participants and providers, coupled with reliance on self-reported outcomes without blinded diagnostic confirmation. Such an approach heightens the potential for detection bias, as parents in the intervention groups might overestimate improvements in child mental health due to anticipated benefits, relative to waitlist or no-treatment controls.

Data handling further distinguished these studies. Miklowitz et al. (2013) and Miklowitz et al. (2020b) employed survival analysis with censoring to address missing data, while Jones et al. (2014) and Jones et al. (2017) used random effects models with maximum likelihood estimation. Conversely, Besenek (2020) analysed only completer data, excluding dropouts and participants who developed psychiatric disorders. This resulted in substantial exclusions—50% of the intervention group and 33% of the control group—potentially skewing results in favour of the experimental intervention in the follow-ups, thus limiting the reliability of its findings.

Using the ROBINS-I tool, two quasi-experimental studies from the RUSH programme (Resendes et al., 2023; Serravalle et al., 2021) and one open-label study from the FFT-HR programme (Miklowitz et al., 2011) were rated as having a moderate risk of bias. This assessment predominantly reflects their non-randomised designs, which introduced potential confounding. For the RUSH studies, additional concerns include dependence on parent-reported outcomes and differential dropout rates in the intervention group, both of which may contribute to missing data bias. Despite these limitations, all three studies demonstrated strengths in intervention classification, adherence to intended protocols, and absence of selective reporting. Nonetheless, their findings warrant cautious interpretation.

Table 7.2. Risk of Bias for Each Study According to RoB2 and ROBINS-I Domains

RoB2 for RCTs	Domain 1: Randomisation Process	Domain 2: Deviations from Intended Interventions	Domain 3: Missing Outcome Data	Domain 4: Measurement of the Outcome	Domain 5: Selection of the Reported Result	Overall Risk of Bias
Besenek (2020)	Low	High	High	High	Some concerns	High
Jones (2013)	Low	Low	Low	High	Some concerns	High
Jones (2017)	Low	Low	Low	High	Low	High
Miklowitz (2013)	Low	Low	Low	Low	Low	Low
Miklowitz (2020b)	Low	Low	Low	Low	Low	Low

ROBINS-I for Quasi-Experimental and Cohort studies	Domain 1: Confounding	Domain 2: Selection of Participants into the study	Domain 3: Classification of Interventions	Domain 4: Deviations from Intended Interventions	Domain 5: Missing Outcome Data	Domain 6: Measurement of the Outcomes	Domain 7: Selection of the Reported Result	Overall Risk of Bias
Miklowitz (2011)	Moderate	Moderate	Low	Low	Low	Low	Low	Moderate
Serravalle (2021)	Moderate	Moderate	Low	Low	Moderate	Moderate	Low	Moderate

Note: **RCTs** = Randomised Controlled Trials; **RoB2** = The Revised Cochrane Risk of Bias tool for randomised trials; **ROBINS-I**: The Risk of Bias In Non-randomised Studies of Interventions.

Table 7.3. Child Psychopathology and Functioning Outcomes

Study	Groups	Construct	Measures	Overall Effects
Besenek (2020)	Psychoeducation (n = 30) vs No-Treatment Control (n = 30) **Completer Analysis**	Broad psychiatric symptomatology	CCSS-5	Follow-Up (0-9 months) [1] • Manic symptoms (0-9 months): p = .026, d = 0.66 • Somatic symptoms (0-9 months): p < .001, d = 1.50 • Other symptoms (0-9 months): not significant, d = 0.12 (psychosis)–0.55 (anger)
		Wellbeing	PedsQL	Follow-Up (0-9 months) [1] • Physical well-being (0-9 months): p = .15, d = 0.52 • Psychosocial well-being (0-9 months): p = .21, d = 0.47 • Total quality of life (0-9 months): p = .13, d = 0.54
Jones (2014)[2]	Triple P (n = 19) vs Waitlist (n = 20) **ITT Analysis**	General Psychopathology	SDQ	Intervention (0-10 weeks) [2] • Triple P group: $\beta = -9.18 \pm 2.33$, $p < .001$ • Waitlist group: $\beta = -0.74 \pm 3.47$, $p = .68$ • Between-group difference: $p < .01$, $d = 1.0$
Jones (2017)[3]	IBPI (n = 47) vs Waitlist (n = 50) **ITT Analysis**	General Psychopathology	SDQ	Intervention (0-16 weeks) • IBPI group: $\beta = -0.48 \pm 0.14$ per 4 weeks, $p < .01$ • IBPI vs Waitlist: $\beta = 0.83 \pm 0.19$ per 4 weeks, $p < .01$; $d = 0.89$ Follow-Up (16-48 weeks) • IBPI: $\beta = 0.01 \pm 0.09$ per 4 weeks, $p = .87$

				• IBPI vs Waitlist: $\beta = -0.11 \pm 0.12$ per 4 weeks, p = .34, d = -0.19
		Behavioural Problems	ECBI-P ECBI-I	Intervention (IBPI vs Waitlist, 0-16 weeks): • ECBI-P: p = .26; d = 0.23; ECBI-I: p = .18; d = 0.27 Follow-Up (IBPI vs Waitlist): • ECBI-P: p = .47; d = 0.15; ECBI-I: p = .81; d = 0.05
Miklowitz (2011)	FFT (n = 13) **Completer Analysis (No drop-out)**	Mood Recovery Psychosocial Functioning	CDRS-R YMRS PSRs A-LIFE	Follow-Up (Cohen's d reflects within-group improvements from baseline to 12-month follow-up) [3] • Depression: (1) CDRS-R, p = .01, d = 0.63; (2) Depression PSRs, p < .001, d = 1.77 • Hypomania: (1) YMRS, p = .001, d = 1.15; (2) Hypomania PSRs, p < .001, d = 0.51 • Global functioning: A-LIFE, p < .001, d = 1.42
Miklowitz (2013)	FFT (n = 21) vs Education Control (n = 19) **ITT Analysis**	Mood Recovery	CDRS-R YMRS PSRs	Follow-Up (FFT vs Education Control, 0-1 year) [4] • Depression: CDRS, p = .22, d = 0.27 • Hypomania: YMRS, p = .035, d = 0.49 • Recovery time: 13 vs 21.25 weeks, p = .047, HR = 2.69 (baseline hypomania/depression controlled) • Recovery time from depression: 9.2 vs 21.4 weeks, p = .006, HR = 2.63

		Mood Remission	PSRs[3]	Follow-Up (FFT vs Education Control, 0-1 year) [4] • Remission duration (FFT vs Control): 26.8 vs 19.5 weeks, $p < .0001$, $d = 1.17$. • New MDEs[4]: 14.3% (3/21) FFT vs 26.3% (5/19) Control, $p = .42$, $d \approx 0.29$ (from χ^2) [5]. • Subsyndromal hypomanic episodes[4]: 19.0% (4/21) FFT, 15.8% (3/19) Control, $p = .80$, $d \approx 0.09$ (from χ^2) [5].
Miklowitz (2020b)	FFT (n = 61) vs Enhanced Care (EC, n = 66) **ITT Analysis**	Mood Recovery		Follow-Up (0-4 years) • FFT Group: 77% recovered (median: 24 weeks, 95% CI, 17–33) • EC Group: 65.2% recovered (median: 23 weeks, 95% CI, 17–29) • Group difference (Time to recovery): $p = .93$, HR = 1.02 (95% CI: 0.67-1.54)
		Mood Remission	PSRs	Follow-Up (FFT vs EC, 0-4 years) • Median time to any mood episode: 81 vs 63 weeks, HR = 0.59 (95% CI: 0.35-0.97), $p = .03$ • Median time to a depressive episode: 87 vs 63 weeks, HR = 0.53 (95% CI: 0.31-0.88), $p = .01$ • Hypomanic/manic episode: FFT 14.8% (9/61), mean = 141 weeks vs EC 4.5% (3/66), mean = 134 weeks; HR not reported due to low event rates, $\chi^2 = 2.43$, $p = .12$
		BD Conversion		Follow-Up (FFT vs EC, 0-4 years) • FFT Group: 18.0% converted (11/61), mean = 135.5 ± 6.6 weeks • EC Group: 12.1% converted (8/66), mean = 91.4 ± 4.0 weeks • Group difference (mean time to conversion): HR not reported due to low event rates, no significant difference between groups ($\chi^2 = 0.17$, $p = .68$) [5]

Miklowitz (2020a)	FFT (n = 61) vs Enhanced Care (EC, n = 66) **ITT Analysis**	Suicide Ideation and Behaviours	SIQ PSR-SI	Follow-Up (FFT vs EC, 0-4 years) • Weeks with significant suicidal ideation: IRR = 2.47 (95% CI: 1.15-5.34), p = .02 • Intervals without suicidal events: 125.0 (SE = 6.0) vs 114.3 (SE = 7.8) weeks, HR = 0.41 (95% CI: 0.12-0.98), p = .03 • Time to severe suicidal events: 140.1 (SE = 2.9) vs 133.2 (SE = 5.7) weeks, HR = 0.15 (95% CI: 0.03-0.73), p = .02
Miklowitz (2022)	FFT (n = 54) vs Enhanced Care (EC, n = 60) **ITT Analysis**	Mood Instability	CALS	Follow-Up (FFT vs EC, 0-4 years) • No significant FFT vs EC group differences reported • Mood instability significantly decreased initially (up to 30 months) then increased slightly thereafter (quadratic effect: p < .0001). Increased after 30 months were based on fewer participants (n = 22, 17.3% of sample)

Note: **A-LIFE =** Adolescent Longitudinal Interval Follow-up Evaluation; **BASC-2** = Behaviour Assessment System for Children, Second Edition; **CALS** = Children's Affective Lability Scale; **CDRS-R** = Children's Depression Rating Scale- Revised; **EC** = Enhanced Care; **ECBI-I** = Eyberg Child Behaviour Inventory-Intensity Scale; **ECBI-P** = Eyberg Child Behaviour Inventory- Problem Scale; **FFT** = Family-focused therapy; **IRR** = Incidence Rate Ratio; **ITT analysis** = intent-to-treat analysis; **MDEs** = Major depressive episodes; **SDQ** = Strength and Difficulties Questionnaire; **SIQ** = Suicidal Ideation Questionnaire; **SE** = standard error; **PSR** = Psychiatric Status Ratings; **PSR-SI** = Psychiatric Status Ratings- Suicidal Ideation Subscale; **WL** = waitlist; **YMRS** = Young Mania Rating Scale

[1] Cohen's d values were computed based on partial eta squared derived from Greenhouse-Geisser corrected degrees of freedom. At the 9-month follow-up, the psychoeducation group (n = 15) and the control group (n = 20) had the following Hedge's g effect sizes: manic symptoms (g = 0.65), somatic symptoms (g = 1.47), psychosis (g = 0.12), anger (g = 0.54), physical well-being (g = 0.51), psychosocial well-being (g = 0.46), and total quality of life (g = 0.53)

[2] Jones et al. (2014) adopted an ITT analysis using a random-effects model adjusting for dropout, with 16 and 8 participants assessed at follow-up in the Triple P and control groups, respectively. Therefore, Hedge's g is 0.97.

[3] Miklowitz (2011) included only a single treatment arm receiving FFT-HR. Therefore, Cohen's d reflects within-group improvements from baseline to 12-month follow-up. Hedge's g values were: CDRS-R (g = 0.59); Depression PSRs (g = 1.65); YMRS (g = 1.07); Hypomania PSRs (g = 0.47); and A-LIFE (g = 1.32)

[4] Recovery is defined as all PSR mood scales ≤ 2 for ≥ 8 weeks; Remission is defined as all PSR scores ≤ 2; Subthreshold states are defined as PSR scores of 3 or 4. At one-year follow-up, comparing FFT-HR (n = 16) with EC (n = 15), Hedge's g values were: CDRS (g = 0.26),YMRS (g = 0.48), remission duration (g = 1.14), new MDEs (g = 0.28), and subsyndromal hypomanic episode (g = 0.09).

[5] Cohen's d calculated from χ^2 statistics (φ coefficient method).

Child Psychopathology Outcomes

Table 7.3 summarises outcomes related to child psychopathology and functioning, showing mixed results for interventions targeting children of parents with BD. Besenek (2020) evaluated a brief (15–20 min), single-session psychoeducational intervention with bibliotherapy for parents of youth at high risk for BD who had no current psychiatric diagnosis, addressing risks (mood disorders, suicide, psychosis) and providing coping, problem-solving, and communication strategies. From baseline to the 9-month follow-up, the intervention group demonstrated significantly greater reductions than controls in somatic ($p < .001$, $d = 1.50$, large effect) and manic symptoms ($p = .026$, $d = .66$, medium effect). No significant group differences emerged in other symptoms (depression, anxiety, sleep disturbances, attention deficits, anger, irritability, psychotic symptoms, stereotypical behaviours), although minimal-to-medium effect sizes were noted (Cohen's d range: 0.12 [psychosis] to 0.55 [anger]). Additionally, small-to-medium effect sizes emerged for physical wellbeing ($p = .15$, $d = .52$), psychological well-being ($p = .21$, $d = .47$), and total quality of life ($p = .13$, $d = .54$), suggesting potential clinical relevance despite lack of statistical significance. Importantly, analyses excluded participants progressing to clinical diagnoses at follow-ups (intervention group: 14 out of 30; control group: 10 out of 30), potentially overestimating intervention effectiveness by skewing results towards healthier participants.

Jones et al. (2014) and Jones et al. (2017) evaluated online, parent-only, self-guided programmes compared to waitlist for parents with BD and children aged 3–10 years. Jones et al. (2014), a pilot RCT, tested a positive parenting module adapted from the Triple P parenting programme (Metzler et al., 2012) and supplemented it with a tip sheet to help parents with BD monitor and cope with mood swings. Jones et al. (2017), a larger RCT, examined the positive parenting module combined with bipolar-specific self-management modules co-developed

with service users with BD. Jones et al. (2014) measured child psychopathology using the parent-reported Strengths and Difficulties Questionnaire (SDQ), reporting significant reductions at 10 weeks in the Triple P group ($\beta = -9.18 \pm 2.33$, $p < .001$) compared to controls ($\beta = -0.74 \pm 3.47$, $p = .68$), with a large between-group difference ($p < .01$, $d = 1.0$). Jones et al. (2017) similarly used the SDQ and the Eyberg Child Behaviour Inventory (ECBI). Significant post-treatment SDQ improvements were observed in the IBPI group vs waitlist, with a large effect size ($\beta = 3.32 \pm 0.38$, $p < .01$, $d = 0.89$). However, from 16 to 48 weeks, no further improvement occurred ($\beta = -0.88 \pm 0.34$, $p = .34$, $d = -0.19$, minimal effect). ECBI outcomes showed minimal-to-small, non-significant group differences during the intervention (0-16 weeks, $d = .23$ for ECBI-P, measuring the number of reported child behaviour problems; $d = .27$ for ECBI-I, measuring the intensity of these behaviour problems) and follow-up (16-48 weeks, $d = .15$ for ECBI-P; $d = .05$ for ECBI-I). Several reasons might explain these findings, including differing measure sensitivity (SDQ capturing broader emotional and behavioural changes, ECBI targeting severe externalising behaviours) and lower parental engagement with Triple P modules (particularly those addressing child behaviour), potentially requiring more intensive intervention or enhanced support for parental engagement. Compared to Jones et al. (2014), Jones et al. (2017) provides stronger evidence due to a larger sample size, lower attrition, and extended follow-up, reinforcing the efficacy of online interventions in reducing child psychopathology in families affected by parental BD.

In samples where offspring exhibited both a family history of BD and early clinical signs (e.g., subthreshold mania or major depression), study designs evolved notably across Miklowitz's studies. Initially, in an open trial (N = 13, 2 sites, 12-month follow-up), Miklowitz et al. (2011) found medium-to-large within-group improvements after 12-session FFT on depressive (CDRS-R: $d = 0.63$; depression PSRs: $d = 1.76$), hypomanic (YMRS: $d = 1.15$; hypomania PSRs: $d = 0.51$), and psychosocial functioning measures (ALIFE: $d = 1.42$). An

exploratory RCT (N = 40, 2 sites, 12-month follow-up; Miklowitz et al. (2013)) comparing FFT (12 sessions, 4 months) with brief psychoeducation (1–2 sessions) showed significant FFT advantages, including faster mood recovery overall (median 13 vs 21.3 weeks, HR = 2.69, p = .02, indicating FFT more than doubled recovery speed), particularly for participants with baseline depression (median 9.2 vs 21.4 weeks, HR = 2.63, p = .006), longer remission duration (26.8 vs 19.5 weeks, d = 1.17, p <.0001), and improved hypomania severity (d = 0.49, p = .035), but not depression severity (d = 0.27, p = .22). Most recently, a larger confirmatory RCT (N = 127, 3 sites, 1–4-year follow-up; Miklowitz et al. (2020b)) compared FFT (12 sessions) to Enhanced Care (EC, 6 sessions). Time to recovery from initial mood symptoms did not differ significantly between groups (FFT: 77% recovered in a median of 24 weeks; EC: 65.2% recovered in a median of 23 weeks; HR = 1.02, 95% CI: 0.67-1.54, p = .93). FFT, however, was associated with longer intervals to the next mood episode (median 81 vs 63 weeks; HR = 0.59, 95% CI: 0.35-0.97, p = .03) and to depressive episodes specifically (median 87 vs 63 weeks; HR = 0.53, 95% CI: 0.31-0.88, p = .01). No significant group differences emerged in time to manic/hypomanic episodes (χ^2= 2.43, p = .12) or conversions to full BD (χ^2= 0.17, p = .68), though HRs were not reported due to low event rates. A secondary analysis focusing on suicidality showed that, compared to EC, FFT was associated with fewer weeks with clinically significant suicidal ideation (IRR = 2.47, 95% CI: 1.15-5.34, p = .02), longer intervals without suicidal events (mean 125.0 vs 114.3 weeks, HR = 0.41, 95% CI: 0.12-0.98, p = .03), and a significantly lower risk of severe suicidal events (HR = 0.15, 95% CI: 0.03-0.73, p = .02) (Miklowitz et al., 2020a). Furthermore, FFT did not significantly reduce mood instability relative to enhanced usual care; mood instability initially decreased significantly, then slightly increased after 30 months regardless of treatment assignment (quadratic effect, p < .0001), suggesting FFT did not specifically target this symptom (Miklowitz et al., 2022).

Table 7.4. Parenting and Parent–child Outcomes

Study	Construct (Measure)	Time	Time	Within Group		Between-Group		
				b ± SE	p	b ± SE	p	d (g)
Jones (2014)	Dysfunctional parenting (PS)	Intervention (0-10 weeks)	Triple P	-0.91 ± 0.45	**< .001**	0.94 ± 0.56	**< .001**	0.73 (0.71)
			WL	0.03 ± 0.33	.85			
Jones (2017)[1]	Dysfunctional parenting (PS)	Intervention (0-16 weeks)	IBPI	-0.16 ± 0.04	**.02**	0.12 ± 0.04	.24	0.30
			WL	-0.08 ± 0.04	.27			
		Follow-Up (16-48 weeks)	IBPI	-0.03 ± 0.03	.68	-0.16 ± 0.03	.19	0.41
			WL	-0.24 ± 0.03	**< .01**			
	Parenting Competence (PSOC)	Intervention (0-16 weeks)	IBPI	4.72 ± 0.64	**.01**	-4.68 ± 0.82	**< .01**	0.58
			WL	0.04 ± 0.56	.96			
		Follow-Up (16-48 weeks)	IBPI	1.52 ± 0.54	.32	-0.08 ± 0.74	.96	0.01
			WL	1.44 ± 0.51	.31			
	Parenting Stress (PSI)	Intervention (0-16 weeks)	IBPI	-7.48 ± 1.22	**< .01**	7.76 ± 1.54	**.01**	0.51
			WL	0.24 ± 1.04	.91			
		Follow-Up (16-48 weeks)	IBPI	0.16 ± 1.02	.96	-7.20 ± 1.39	.06	-0.37
			WL	-7.04 ± 0.91	**< .01**			
		Intervention (0-16 weeks)	IBPI			0.52 ± 0.30	.37	0.18
			WL					

	Family Functioning (CHAOS)	Follow-Up (16-48 weeks)	IBPI WL		0.40 ± 0.28	.62	0.10
Resendes (2023)[1]	PSI-Total Stress	Intervention (0-12 weeks)	RUSH (OBD)	-0.32 ± 0.18	.08	0.54 ± 0.24	**.03**	0.55
		Overall (0-36 weeks)		0.26 ± 0.05 (quadratic)	**< .001**	0.95 ± 0.18	**< .001**	1.30 (1.28)
	PSI-Parental Distress	Intervention (0-12 weeks)		-0.25 ± 0.20	.23		>.05	
		Overall (0-36 weeks)		- 0.12 ± 0.07 (linear)	**<.001**		>.05	
	PSI-Dysfunctional Interaction	Intervention (0-12 weeks)		-0.24 ± 0.15	.13		>.05	
		Overall (0-36 weeks)		- 0.28 ± 0.15 (linear)	.06	0.64 ± 0.21	**.003**	0.75 (0.74)
	PSI-Difficult Child	Intervention (0-12 weeks)		-0.40 ± 0.16	**.02**	0.56 ± 0.22	**.01**	0.63
		Overall (0-36 weeks)		0.12 ± 0.04 (quadratic)	**.008**	0.94 ± 0.23	**<.001**	1.01 (0.99)
Serravalle (2021)	Parental Negativity	Intervention (0-12 weeks)	RUSH (OBD)	-0.60 ± 0.05	**< .001**	-0.51 ± 0.07	**< .001**	1.79
		Overall		-0.04 ± 0.01	**< .001**	-0.17 ± 0.04	**< .001**	1.05

		(0-36 weeks)					(1.03)
	Parental Positivity	Intervention (0-12 weeks)		0.25 ± 0.08	**< .001**	0.63 ± 0.09	**< .001**	1.72
		Overall (0-36 weeks)		-0.07 ± 0.03	**.01**	0.20 ± 0.03	**< .001**	1.64 (1.61)
	Dyadic Mutuality	Intervention (0-12 weeks)		0.12 ± 0.05	**.048**	0.27 ± 0.10	**.005**	0.66
		Overall (0-36 weeks)		0.05 ± 0.01	**< .001**	0.15 ± 0.04	**< .001**	0.92 (0.91)
Miklowitz (2020a)[2]	Mother-Child Conflict (CBQ)	Overall (0-48 months)	FFT vs EC	Youth in FFT perceived significantly less conflict with their mother over time than youth in EC (Z = 2.02, p = **.04)**				
Weintraub (2022)[3]	Family Functioning (SAS)	Intervention (0-4 months) Overall (0-24 months)	FFT vs EC	FFT significantly outperformed EC in family functioning • 4 months: F (1,114.3) = 4.58, **p < .05**, d = 0.40–0.44 • 18 months: F (1,83.9) = 7.95, **p < .01**, d = 0.74 • 24 months: F (1,47.6) = 4.65, **p < .05**, d = 0.71				

Note: **CBQ =** Conflict Behaviour Questionnaire; **CHAOS =** Confusion, Hubbub and Order Scale**; d** = Cohen's d; **Diff** = between-group comparison; **EEC** = Enhanced Education Control; **Est** = estimate of slope; **FFT** = Family-focused therapy; **g** = Hedge's g; **PS** = Parenting Scale**; PSI** = Parenting Stress Index; **PSOC** = Parenting Sense of Competency Scale; **OBD** = offspring of parents with bipolar disorder; **ONAD** = offspring of parents without affective disorders; **SAS** = Social Adjustment Scale-Self Report: Short Form; **SD** = standard deviation; **SE** = standard error.

[1] Cohen's d values were calculated by deriving t-statistics from slope estimates and their standard errors (t = slope/SE), then converting these into Cohen's d using the formula $d = t \cdot \sqrt{\frac{n1+n2}{n1 \cdot n2}}$. This method reflects an intention-to-treat approach.

[2] Cohen's d could not be calculated for the CBQ outcomes from Miklowitz et al. (2020), as the mediation analyses (GEE with repeated measures) did not report means or standard deviations suitable for effect size conversion.

[3] Cohen's d at 4 months was estimated using the mediation effect (b = -1.82) as the mean difference and baseline SD (4.6) as the pooled SD, and alternatively using the F-statistics; for 18 and 24 months, d was estimated using F-statistics with sample sizes of 58 and 37, respectively, due to unavailable mean differences.

Parent or Parent–Child Outcomes

Table 7.4 summarises parent or parent–child outcomes from interventions targeting families with children at risk for BD. Current evidence on parent-focused interventions without direct child participation is limited to online, self-directed programmes evaluated by Jones et al. (2014) and Jones et al. (2017). Jones et al. (2014) reported significant within-group improvements in dysfunctional parenting (β = -0.91, p < .001) and significant differences compared to waitlist controls (β = 0.94, p < .001), indicating a medium effect size (d = 0.73). Jones et al. (2017) observed no significant between-group differences in dysfunctional parenting, though IBPI participants initially improved faster during the intervention phase (β = 0.12, p = .24, d = 0.30), before controls caught up during the follow-up phase (β = -0.16, p = .19, d = -0.41). The larger effect in Jones et al. (2014) may reflect more severe baseline parental mood symptoms and dysfunctional parenting, or higher dropout among potentially severely affected participants (**Supplement 7.6**). Jones et al. (2017) reported significant immediate post-intervention improvements in parenting competence (PSOC; β = -4.68 ± 0.82, p < .01, d = 0.58, medium effect), but these were not sustained during follow-up (β = -0.08 ± 0.74, p = .96, d = 0.01, minimal effect). Similarly, parenting stress (PSI) significantly decreased

post-intervention compared to control (β = 7.76 ± 1.54, p = .01, d = 0.51, medium effect), but later improvements in controls reduced these differences at follow-up (β = -7.20 ± 1.39, p = .06, d = -0.37). Parental mood symptoms, BD relapses, and family functioning (CHAOS) showed no significant improvements.

Compared to these parent-only interventions, family-focused interventions directly involving both parents and children have demonstrated broader positive impacts on parent–child dynamics and overall family functioning. Miklowitz et al. (2020a), in a post-hoc secondary analysis of a confirmatory RCT evaluating FFT, provided additional support for these benefits. Specifically, youth receiving FFT reported significantly lower levels of mother-child conflict compared to youth in an Enhanced Care (EC) group over a longitudinal follow-up (0-48 months; z = 2.02, p = .04). Weintraub et al. (2022), in another secondary analysis based on the same RCT data, extended these findings by explicitly examining broader dimensions of family functioning using the Social Adjustment Scale (SAS). Results demonstrated that, compared to EC, FFT was associated with significantly greater improvements in family functioning, both immediately after the intervention completion at 4 months (F (1,114.3) = 4.58, p < .05, d ≈ 0.40–0.44, small effect), and throughout the extended follow-up period at 18 months (F (1,83.9) = 7.95, p < .01, d ≈ 0.74, medium effect) and 24 months (F (1,47.6) = 4.65, p < .05, d ≈ 0.71, medium effect).

Further supporting the effectiveness of involving both parents and children, the RUSH programme, which simultaneously yet separately engages parents and their offspring, also demonstrated significant and sustained improvements in parenting stress and parent–child interactions within families affected by parental BD compared to a no-treatment, low-risk control group (ONAD). Serravalle et al. (2021) and Resendes et al. (2023) analysed the same RUSH intervention data, focusing on different outcomes. Resendes et al. (2023) reported

immediate post-treatment reductions in overall parenting stress, using the Parenting Stress Index (PSI), compared to ONAD controls (β = 0.54, d = 0.55, medium effect, p = .03), which intensified to a large effect by the 36-week follow-up (β = 0.95, d = 1.30, p <.001). Parents also reported significant improvements in relation to perceiving their child as less difficult compared to controls (β = 0.56, d = 0.63, medium effect, p = .01), with a sustained large effect at follow-up (β = 0.94, d = 1.01, large effect, p <.001). Parental distress improved gradually within the RUSH group, but between-group analyses showed no significant differences compared to ONAD controls at either post-treatment or overall period. Dysfunctional interactions showed a delayed benefit in the RUSH group compared to controls by the 36-week period (β = 0.64, d = 0.75, medium effect, p = .003). Serravalle et al. (2021) reported significant post-treatment improvements in parent–child interactions compared to ONAD controls, including large reductions in parental negativity (β =-0.51, d = 1.79, p < 0.001), large increases in parental positivity (β = 0.63, d = 1.72, p < 0.001), and medium improvements in dyadic mutuality (β = 0.27, d = 0.66, p = 0.005). These improvements fluctuated slightly over the follow-up period but remained significant at 36 weeks. Specifically, reductions in parental negativity (β =-0.17, d = 1.05, p < .001) and increases in parental positivity (β = 0.20, d = 1.64, p < .001) persisted despite minor declines, whereas dyadic mutuality further improved by six months (β = 0.15, d = 0.92, p < .001).

Mediation Analysis

Further analysis of mediation pathways revealed two significant mechanisms underpinning these outcomes (**Table 7.5**): (1) reductions in parental negativity mediated decreases in children's internalising symptoms (indirect effect: β = 2.06, 95% CI: 0.06–5.51; Serravalle et al., 2021), and (2) reductions in parenting stress (total scores) significantly mediated improvements in both internalising (β = -0.31, 95% CI: [-0.55, -0.13]) and externalising symptoms (β = -0.35, 95% CI: [-0.57, -0.16]). Although mediation effects from

specific parenting stress subdomains were limited, the findings highlight the pivotal role of holistic improvements in parenting stress in enhancing offspring emotional and behavioural health outcomes. Improvements in family functioning (SAS-Family scores) at 4 months mediated subsequent reductions in depressive symptoms at 8 months (indirect effect: $\beta = -0.22$, $p < .01$), a mediation pathway that emerged significantly at 8 months and strengthened progressively over time. Reductions in mother-child conflict mediated decreases in suicidal ideation (SIQ and PSR-SI, both $p = .02$).

Table 7.5. Mediation Analysis

Study	Intervention	Mediator Variable	Outcome Variable	Intervention → Mediator (β, SE)	Mediator → Outcome (β, SE)	Indirect Effects (β, SE)
Serravalle (2021)	RUSH[1]	Parental Negativity	Parent-reported int. symptoms	***-0.49 (0.21)**	***-4.18 (2.06)**	***-2.06 (1.51)**
		Parental Positivity		***0.59 (0.28)**	-0.13 (2.13)	-0.08 (1.17)
		Dyadic Mutuality		0.32 (0.22)	-0.35 (1.33)	-0.11 (0.55)
		Parental Negativity	Parent-reported ext. symptoms	***-0.49 (0.21)**	-1.08 (1.73)	0.53 (1.00)
		Parental Positivity		***0.59 (0.28)**	-0.38 (1.91)	-0.22 (1.06)
		Dyadic Mutuality		0.32 (0.22)	-0.87 (1.28)	-0.28 (0.52)
Resendes (2023)	RUSH[1]	Total Stress	Parent-reported int. symptoms	****0.41 (0.10)**	****-0.75 (0.19)**	****-0.31 (0.10)**
		Parental Distress		***0.38 (0.12)**	0.16 (0.16)	0.07 (0.07)
		Dysfunctional Interaction		***0.28 (0.12)**	0.30 (0.19)	0.07 (0.08)
		Difficult Child		***0.32 (0.13)**	0.11 (0.15)	0.01 (0.05)
		Total Stress	Parent-reported ext. symptoms	****0.41 (0.10)**	****-0.84 (0.09)**	****-0.35 (0.10)**
		Parental Distress		***0.38 (0.12)**	0.14 (0.15)	0.07 (0.07)
		Dysfunctional Interaction		***0.28 (0.12)**	***0.42 (0.14)**	0.12 (0.06)
		Difficult Child		***0.32 (0.13)**	0.18 (0.11)	0.06 (0.05)

Miklowitz (2020a)	FFT vs EC	Mother-child conflicts (Lagged CBQ scores)	Youth Suicidal Ideation (SIQ)	**Z = 2.02 P = .04**	**t = 3.01 p = .003**	**p = .02 (adjusted p = .036)**
			Clinician-rated Suicidal Ideation (PSR-SI)		**Z = 2.91 p = .004**	**p = .02** (adjusted p = .057)
Weintraub (2022)	FFT vs EC	Family functioning (baseline → 4-months)	Depressive symptoms (8 months)	***-1.82 (0.66)**	***0.12 (0.03)**	***-0.22 (0.14)**
		Family functioning (Lagged scores, 0-24 months)	Depressive symptoms (0-24 months)	**The effect grows over time**	**Significant from 8 months onward**	**A significant mediation emerged at 8 months, intensifying by 24 months**
			(Hypo)manic symptoms (0-24 months)		No significant association	No significant mediation

Note: **CBQ** = Conflict Behaviour Questionnaire; **EC** = Enhanced Care; **ext. symptoms** = externalising symptoms; **FFT** = Family-Focused Therapy; **int. symptoms** = internalising symptoms; **PSR** = Psychiatric Status Ratings; **RUSH =** Reducing Unwanted Stress In the Home (Programme); **SAS** = Social Adjustment Scale-Self Report: Short Form;

*p < 0.05; **p < 0.001

[1] 36 weeks from baseline, including the 12-week RUSH intervention and a 6-month follow-up. Predictor is the RUSH intervention for all analyses.

[2] Adjusted for depression and hypomania symptom severity

Acceptability Outcomes

None of the reviewed studies directly measured participant acceptability. Instead, treatment continuation metrics were used as proxies, assuming that programmes perceived as acceptable would result in greater participant engagement. When direct in-treatment engagement metrics (e.g., session attendance or dropout during treatment) were unavailable, post-treatment dropout rates measured after treatment completion were used.

Table 7.6 summarises treatment completion and retention rates for family- or parent-focused interventions. Brief, lower-intensity psychoeducational interventions (1–2 sessions) demonstrated very high treatment completion rates ranging from 95 to 100% (Besenek, 2020; Miklowitz et al., 2013 control condition). Higher-intensity interventions (6–12 sessions) showed slightly lower but still feasible completion rates of 76 to 85% (FFT-HR, Miklowitz et al., 2020b control condition; Serravalle et al., 2021). However, these differences have not been directly compared statistically.

Different delivery models among higher-intensity interventions showed similar treatment completion profiles: separate family and child sessions (3 family sessions followed by 3 child sessions; 76% completed at least 5 of 6 sessions, Miklowitz et al., 2020b control condition), joint family sessions (12 sessions in FFT-HR; 79% completed at least 9 of 12 sessions, Miklowitz et al., 2011, 2013, 2020b), and parallel parent and child groups (12 sessions each, conducted separately but simultaneously; 76% had no dropout during treatment, Serravalle et al., 2021; Resendes et al., 2023). It should be noted, however, that definitions of treatment completion varied across interventions, and no direct statistical comparisons were performed.

Compared to face-to-face interventions, online interventions showed greater variability in acceptability. Jones et al. (2013, 2017) evaluated online, parent-only, self-directed

programmes without therapist support, reporting substantial differences in retention at course completion (42% vs 96%) and corresponding differences in their waitlist control groups (80% vs 100%). These differences likely arose from two types of factors. **Systematic factors**, influencing both intervention and control groups, included differences in recruitment methods (charity-only in Jones et al., 2013 vs NHS and community in Jones et al., 2017), diagnostic confirmation methods (self-reported BD diagnosis vs formal SCID diagnosis), and assessment frequency (a single follow-up assessment vs multiple assessments potentially increasing indirect support and accountability). **Treatment-specific factors**, affecting only intervention groups, involved content delivery format (all modules were simultaneously available in Jones et al., 2013 vs phased weekly module release in Jones et al., 2017) and the degree of content tailoring (general parenting-only modules vs integrated bipolar mood management and parenting modules). Notably, in Jones et al. (2017), participant engagement differed between modules: 77% accessed bipolar self-management modules compared to only 53% accessing parenting modules. Although the authors did not explicitly explain this discrepancy, it may indicate that parenting content was less engaging or perceived as less directly relevant by parents with BD. Further research is needed to clarify how parenting materials could be optimally integrated and tailored to meet these parents' specific needs.

Table 7.6. Acceptability Outcomes

	Measures	Treatment Group [d]	Control Group	Factors that May Influence Acceptability
Besenek (2020)	3-month Post-Treatment Retention [a]	97% (29/30)	100% (30/30)	• High retention may be due to recruiting patients with BD from psychiatric outpatient clinics and a single, low-intensity (15–20 minutes) psychoeducation session
Jones (2013)	10-Week Course Completion Retention [b]	42% (8/19)	80% (16/20)	• The study's self-selected self-help group parents—who may not reflect typical motivation and readiness to change—and the decision to distribute all materials at once without additional support (e.g., telephone follow-ups) or financial compensation for assessments may have contributed to reduced retention.
Jones (2017)	16-Week Course Completion Retention [b]	96% (45/47)	100% (50/50)	• Jones (2017) built on Jones (2013) by adding NHS support, formal SCID diagnosis, and phased material release, which likely enhanced participant engagement and accountability • In Jones (2017), 77% accessed bipolar self-management modules and 53% Triple P modules. The authors suggested that future interventions might benefit from improved integration of parenting content with bipolar-specific materials to enhance engagement.

Miklowitz (2011)	Treatment Completion (≥ 9 sessions) [c]	85% (11/13)		• One family never attended, and one stopped after 3 sessions, which may reflect initial engagement difficulties; however, the authors did not specify the reasons. • 8/13 families attended booster sessions (ranging from 1 to 7 sessions), indicating strong ongoing engagement. • Simplified visual materials and flexible session structures were explicitly used to adapt the intervention for younger children (ages 9-12). However, the authors did not explicitly state whether these adaptations improved engagement.
	Average Number of Sessions [e]	11.85 of 12 sessions (SD = 5.18, 0–19)		
Miklowitz (2013)	Treatment Completion (≥ 10 sessions for FFT; ≥ 1 session for Control)	81% (17/21)	95% (18/19)	• Treatment completion rates, the number of extra sessions requested, the use of non-protocol outpatient or school-based services, and average duration of research follow-up (45.0 weeks for FFT vs 44.88 weeks for Educational Control) were comparable between conditions.
	Average Number of Sessions [e]	12.43 of 12 sessions (SD = 5.75, 0-18)	2.26 of 1–2 sessions (SD = 1.19, 0-5)	

Miklowitz (2020)	Treatment Completion (Attendance of at least 75% of sessions)	79% (48/61)	76% (50/66)	• Participants in both FFT and EC completed 91.7% of protocol therapy sessions. Dropout rates during the 4-month treatment were similar (FFT: 8.2%, EC: 16.7%; p = .15) • Although FFT had double the number of sessions compared to EC, the authors did not report a significant difference in dropout rates, suggesting similar acceptability across conditions.
	Average Number of Sessions	11 of 12 sessions (SD = 3.4)	5.5 of 6 sessions (SD = 2.4)	
Serravalle (2021)	Treatment Completion (No dropout during treatment)	76% (26/34)		• Non-initiation of intervention (n = 6); withdrawal during intervention (n = 2).
	Average Number of Sessions	11.15 of 12 sessions (SD = 1.18, 8–12)		

Note: EC = Enhanced Care; FFT = Family-Focused Therapy; NHS = National Health Service (United Kingdom); SCID = Structured Clinical Interview for DSM Disorders; SD = standard deviation

[a] Benesek (2020) implemented a single-session psychoeducation compared to no-treatment control, with the earliest follow-up conducted at 3 months post-intervention

[b] Jones et al. (2013, 2017) implemented online self-guided programmes compared to waitlist over specific durations (Positive Parenting Program: 10 weeks; IBPI: 16 weeks). As ongoing treatment adherence could not be assessed, post-treatment dropout rates (measured immediately after programme completion) were used as proxies for treatment continuation.

[c] Miklowitz et al. (2011) and Serravalle et al. (2021) defined completion as not dropping out during treatment, whereas Miklowitz et al. (2013) and Miklowitz et al. (2020) defined it as attending at least 10 of 12 and 9 of 12 FFT-HR sessions, respectively.

[d] For parent-focused interventions (Jones et al., 2014, 2017), the sample size (n) refers to the number of parents with BD. For family-focused interventions (Miklowitz et al., 2011, 2013, 2020b; Serravalle, 2021), the sample size refers to the number of high-risk children.

[e] The protocol specifies 12 sessions for FFT-HR and 1–2 for EC (in Miklowitz et al., 2013), but participants may require additional crisis sessions beyond these. The number of extra sessions did not differ significantly between the groups ($p > 0.1$).

Moderation Analysis

The moderation analyses summarised in **Table 7.7** examine whether comorbid disorders influence the effects of family-focused interventions on child psychopathology and family outcomes. Weintraub (2022) found that the presence of comorbid anxiety disorders in offspring significantly moderated treatment effects on family functioning over 24 months ($p < .05$). Specifically, youth with comorbid anxiety disorders showed greater improvements in family functioning with FFT-HR compared to Enhanced Care (EC) at 8, 18, and 24 months (all $p < .05$), whereas those without anxiety disorders reported poorer family functioning at 8 months ($p = .03$). Comorbid externalising disorders also moderated treatment effects on family functioning ($p < .01$): youth with these disorders demonstrated greater improvement in FFT-HR vs EC at 18 and 24 months (both $p < .01$), an effect significant for both ADHD ($p < .05$) and CD/ODD ($p < .02$) subtypes.

Miklowitz et al. (2013) demonstrated that family emotional expression (EE) significantly moderated the efficacy of FFT on mood recovery, remission, and subthreshold symptom outcomes in youth at risk for BD. Youth from high-EE households, characterised by elevated levels of criticism, hostility, or emotional overinvolvement, had slower recovery times (mean = 21.2 vs 11.38 weeks in low-EE families, $p = .002$) and a higher likelihood of remaining symptomatic (35.7% vs 6.25%). FFT-HR was particularly effective in high-EE families, resulting in significantly shorter recovery times (HR = 4.59, $p = .014$; low-EE families: HR =

1.46, p = .11, though interaction analyses were underpowered), greater remission durations (mean = 26.58 vs 11.95 weeks in EC, treatment x EE interaction p = .006), and fewer weeks spent in subthreshold symptomatic states (14.88 vs 26.29 weeks in EC, treatment x EE interaction p = .026). Conversely, in low-EE families, FFT-HR did not significantly differ from EC in these outcomes. Additionally, Miklowitz et al. (2020a) showed that baseline suicidal ideation moderated treatment effects, with FFT participants who had high baseline suicidal ideation displaying significantly greater reductions in suicidal ideation at follow-up compared to EC (F [1,205] = 8.68, p = .004). Thus, FFT appears particularly beneficial for youth with high levels of family expressed emotion and high baseline suicidal ideation.

Finally, offspring sex moderated the effects of the RUSH intervention on parent–child interaction outcomes. Specifically, dyads with male offspring showed larger reductions in parental negativity over the course of the study compared to those with female offspring (b = -0.09, SE = 0.04, p = .027), explaining 4.68% of the variability in this outcome. Conversely, dyads with female offspring demonstrated significantly greater improvements in dyadic mutuality over time than those with male offspring (b = 0.11, SE = 0.04, p = .001). These findings suggest that intervention effects may vary based on the child's sex, highlighting the importance of considering gender-specific dynamics in parent–child interactions when designing and implementing preventative programmes. Other associated factors and their impacts on outcomes are summarised in **Supplement 7.7.**

Table 7.7. Moderation Analysis

Study	Moderator (A)	Predictor (B)	Outcomes (C)	Moderation Effects (How A influences B → C)
Weintraub (2022)	Comorbid anxiety disorders[3]	FFT-HR vs EC	Family functioning (SAS)	Comorbid anxiety disorders moderated treatment effects on family functioning over 24 months ($p < .05$), with FFT yielding greater improvements than EC at 8, 18, 24 months for youth with anxiety (all $p < .05$), but no differences for those without, except poorer functioning in FFT at 8 months ($p = .03$)
Weintraub (2022)	Comorbid externalising disorders[4]	FFT-HR vs EC	Family functioning (SAS)	Comorbid externalising disorders moderated treatment effects on family functioning over 24 months ($p < .01$), with FFT showing greater improvements than EC at 18 & 24 months for youth with these disorders ($p < .01$), including ADHD ($p < .05$) & CD/ODD ($p < .02$) subtypes
Miklowitz (2020)	Baseline Suicidal Ideation	FFT-HR vs EC	Suicidal Ideation (SIQ)	Baseline suicidal ideation moderated treatment effects on follow-up SIQ scores ($F [1,205] = 8.68$; $p = .004$), with FFT more effective than EC in reducing suicidal ideation among youth with high baseline SIQ scores
Miklowitz (2013)	Family expressed emotion (EE)	FFT-HR vs EC	Weeks to mood recovery	FFT-HR had a stronger effect on mood symptom recovery in high-EE families (HR = 4.59, p = .014) compared to low-EE families (HR = 1.46, p = .11), though interaction analyses were underpowered

			Weeks in remission	Family EE moderated treatment effects on remission weeks (p = .006), with FFT-HR youth in high-EE families achieving more remission weeks than EC youth (26.58 vs 11.95 weeks), but no significant treatment difference was found in low-EE families
			Weeks in subthreshold states	Family EE moderated treatment effects on subthreshold state weeks (p = .026), with EC youth in high-EE families spending more weeks in subthreshold states than FFT-HR youth (26.29 vs 14.88 weeks)
Serravalle (2021)	Offspring sex	RUSH	Parental negativity	Male offspring showed larger declines in parental negativity over RUSH (b = -.09, SE = .04, p = .027), explaining 4.68% of slope variability
			Dyadic mutuality	Female offspring showed higher growth rates in dyadic mutuality over RUSH (b = 0.11, SE = 0.04, p = .001), explaining 0.66% of slope variability

Note: **ADHD =** Attention-deficit/hyperactivity disorder; **CALS** = Children's Affective Lability Scale; **CD** = Conduct disorder; **EE** = expressed emotion; **FFT** = Family-Focused Therapy; **HR** = hazard ratio; **MDD** = Major depressive disorder; **ODD** = Oppositional defiant disorder; **OSBD** = Other specified bipolar disorder; **SAS** = Social Adjustment Scale-Self Report: Short Form; **SE** = standard error; **YMRS** = Young Mania Rating Scale

[1] Comorbidity was common (0 = 26.3%, 1 = 26.3%, 2 = 15.8%, ≥ 3 = 31.6%). Individual disorders were equally common among BD-NOS/cyclothymic and MDD groups (χ^2 [4] = 1.78, p = .78). Results remained unchanged when comorbidity was operationalized by subtype (externalising only [n = 6], internalising only [n = 2], or both internalising and externalising [n = 20]).

[2] Baseline hypomania (HR = 5.88, $p < .0001$) and depression (HR = 2.76, $p = .019$) significantly predicted mood recovery in this adjusted model.

[3] Significant treatment × time × anxiety interaction ($F [5,71.1] = 2.49$, $p < .05$). No moderation for school/social-emotional functioning.

[4] Significant treatment × time × externalising disorders interaction ($F [5,76.0] = 3.73$, $p < .01$). ADHD ($F [5,73.0] = 2.66$, $p < .05$), CD/ODD ($F [5,75.2] = 2.77$, $p < .02$). No moderation for school/social-emotional functioning.

7.4 **Discussion**

This review synthesises evidence on parent- and family-focused interventions for children at familial risk for BD, demonstrating their efficacy and acceptability across diverse formats and intensities tailored to developmental stages. For younger children (aged 3–10) of parents with BD, online parent-only interventions have been found to effectively alleviate child psychopathology; concurrent increases in parenting competence and reductions in parental stress were also reported, with all effects sustained up to 48 weeks. For slightly older children (aged 6–11) of parents with BD, parallel parent–child interventions have been found to improve parent–child interactions and reduce parenting stress over 6 months, mediating decreases in child internalising and externalising symptoms. Among older children and adolescents (aged 9–17) with non-bipolar mood disorders and a family history of BD, family psychoeducation can promote mood recovery in the offspring. The inclusion of skill-building components (e.g., communication and problem-solving training) in FFT-HR appears to further delay offspring mood episodes (particularly depressive episodes), reduce suicidal ideation, and improve family functioning, with effects extending to 2 years compared to enhanced care. However, FFT-HR did not outperform family psychoeducation alone in preventing offspring mania onset, reducing mood instability or delaying BD onset. Treatment acceptability, inferred from completion and post-treatment retention rates, has been high across studies (95–100%) for brief psychoeducational interventions, but somewhat lower yet still acceptable (76–85%) for

intensive face-to-face programmes, and highly variable for online self-directed programmes without therapist support (42–96%), depending on how the content is delivered and the inclusion of BD-specific modules. Overall, these interventions appear to foster positive parenting and family environments, serving as key mechanisms for sustained improvements in child mental health across age groups.

For youth at risk for BD, psychological interventions may offer a safer and more effective alternative to pharmacological treatments, which often carry safety, tolerability, and efficacy concerns (Saraf et al., 2021). Within psychological approaches, parent- and family-focused interventions generally appear to yield better outcomes than specific child-focused therapies evaluated in this population (see **Supplement 7.8**). However, this apparent advantage might reflect the particular child-focused treatments chosen rather than an inherent superiority of parent- and family-focused methods. For instance, a 12-week trial of mindfulness-based cognitive behavioural therapy for children (MBCT-C) vs a psychoeducation waitlist for youths aged 9–18 with anxiety disorders and a familial BD risk showed no significant differences in anxiety, emotion regulation, or mindfulness, despite good attendance and retention during the intervention period (Cotton et al., 2020). Yet, mindfulness-based interventions have generally shown limited effectiveness in treating anxiety disorders or symptoms among children more broadly (Odgers et al., 2020). Therefore, the relative effectiveness observed here may partly reflect the specific limitations of mindfulness as an intervention, rather than conclusively

demonstrating the superiority of parent- and family-focused approaches. Similarly, a study (Goldstein et al., 2018) of interpersonal and social rhythm therapy (IPSRT) vs data-informed referral in adolescents aged 12–18 at risk for BD found only marginal improvements in objective sleep measures (e.g., reduced wake time after sleep onset), but no significant differences in child- or parent-reported mood, anxiety, or sleep symptoms at six months, unlike its positive efficacy for older youth already diagnosed with BD (Inder et al., 2015). Session attendance was notably low, averaging 4.1 out of 8 sessions (approximately 50%), primarily due to cancellations, no-shows, or unresponsiveness to scheduling attempts. The authors indicated this potentially reflects limited motivation among at-risk adolescents, who may feel less urgency compared to youth already experiencing acute bipolar symptoms (Hlastala et al., 2010), and suggested fewer sessions might suffice for this less symptomatic group (Goldstein et al., 2018). These findings align with motivational barriers to intervention engagement noted by Davison and Scott (2018), who highlighted stigma-related reluctance among asymptomatic youth (aged 12-26 years) and parental fears about causing unnecessary burden. Overall, this chapter reveals that parent- and family-focused interventions can benefit children under 9 by improving mental health and parenting outcomes and deliver sustained mood recovery and remission in older children and adolescents.

Beyond enhancing family dynamics to alleviate psychopathology, some interventions have been associated with neurobiological changes (**Supplement 7.9**). The RUSH team

demonstrated that improved family organisation supports healthier stress responses in the hypothalamic-pituitary-adrenal (HPA) system (Ping et al., 2025). FFT-HR studies further indicate that skills-building reduces hippocampal/amygdala overactivity associated with hypomania and enhances prefrontal cortex (PFC: emotional regulation) activity and its connection to anterior default mode network (aDMN: self-reflection), both linked to reduced severity of depressive symptoms (Singh et al., 2021; Garrett et al., 2021).

My findings tentatively suggest that intervention designs should be tailored according to the child's developmental stage. Specifically, parent-focused interventions may be particularly beneficial for younger children by directly addressing the impact of parental BD on parenting quality (Chapter 4) and the parent's capacity to support their child (Chapter 5). These factors are critical, given younger children's heightened vulnerability to adverse family environments associated with parental BD (Doucette et al., 2016; Freed et al., 2015). In contrast, older children and adolescents may face more complex developmental challenges, including understanding parental BD and managing related emotional stressors as detailed in Chapter 3 (Tu et al., 2025), navigating increasing parent–child conflict, and coping with declining family cohesion, issues often exacerbated by parental BD symptoms (Shalev et al., 2019). Family-focused interventions that incorporate collaborative skill-building, such as FFT-HR, may therefore be better suited for these older children and adolescents, as they can more effectively enhance family support and adolescent coping strategies.

As noted earlier (Methodology), significant heterogeneity across studies precluded a meta-analysis, requiring qualitative synthesis. This qualitative approach provided the advantage of explicitly examining how diverse factors (e.g., intervention type) influence outcomes, capturing nuances that quantitative analyses might overlook. Nonetheless, interpretation remains cautious given potential biases inherent in subjective integration of results and the limited statistical power to detect smaller but potentially clinically meaningful effects. With only 12 studies (7 unique trials, 442 participants), predominantly conducted in high-income, mostly White Western contexts, the sample lacks cultural diversity, limiting applicability to settings with differing family dynamics and mental health resources. For instance, in Chinese cultures, where filial piety is emphasised, adolescents learning about parental BD may assume more caregiving responsibilities, increasing their stress; as such, culturally tailored adjustments may be required (Liu et al., 2022). Quality assessments revealed variable sources of bias: RCTs like Besenek (2020) and Jones et al. (2013, 2017) face high risks from unblinded participants, self-reported outcomes, and attrition, potentially inflating effects, while non-randomised studies carry moderate risks from confounding and missing data, weakening causal claims. Moreover, the absence of direct participant satisfaction measures forced reliance on proxies like retention and attendance rates, which may misrepresent acceptability; high retention in Besenek (2020), for example, might reflect the low burden of a single session rather than genuine engagement, further limiting assessments of real-world

feasibility and impact. Shared limitations across mediation and moderation analyses included small sample sizes, limiting statistical power to reliably detect specific effects. Both analyses often relied on potentially biased, single-informant subjective reports. Additionally, causal inference was challenged by non-randomised designs, confounding variables (e.g., medication use, treatment intensity), and the complexity of modelling bidirectional family-child interactions, collectively restricting the robustness and generalisability of findings.

7.5 Conclusion

In conclusion, parent- and family-focused interventions stand out as promising options for pre-adolescents at familial risk for BD, potentially promoting more supportive family dynamics as a mechanism to improve mental health outcomes where pharmacological and child-focused approaches fall short. Notably, no psychological treatment trials targeting anxiety specifically in this high-risk age group currently exist, underscoring a critical gap in early intervention strategies. These findings pave the way for the next chapter, which summarises this thesis's insights and proposes targeted treatment development and adaptation to address these unmet needs.

Chapter 8 General Discussion and Treatment Implications

This thesis aimed to inform the development of effective psychological treatment approaches for preadolescent children experiencing anxiety disorders within the context of parental bipolar disorder (BD), with the ultimate goal of alleviating their immediate distress and improving long-term mental health outcomes. This chapter provides an overview of the key points from each of the studies conducted, synthesises the main findings, highlights relevant clinical research implications, and discusses the strengths and limitations of the work presented in this thesis.

8.1 Overview of the Thesis Chapters and Implications for Intervention

8.1.1: Meta-analysis Informing the Focus on BD-specific Family Environment in Childhood (Chapter 2, paper 1)

Chapter 2 reported on a systematic review and meta-analysis examining anxiety disorder risks in offspring of parents with mood disorders. The findings reveal that offspring of parents with BD have a significantly elevated risk of anxiety disorders compared to offspring of parents without mood disorders (RR = 2.14, 95% CI: 1.55-2.95), suggesting stronger **familial vulnerability linked specifically to parental BD**. Moreover, this increased risk appears to begin to rise from childhood (up to 12 years, with any anxiety disorder prevalence

reaching 20.3% among high-risk offspring compared to 4.6% among control offspring), highlighting the importance of initiating interventions **early (i.e. before adolescence)** to effectively address this early and sustained vulnerability. Specifically, pre-adolescent offspring of parents with BD demonstrate a consistent trend of elevated prevalence across multiple anxiety subtypes compared to control offspring, including separation anxiety disorder (13.4% vs 3.4%), generalised anxiety disorder (GAD, 5.6% vs 0.8%), social phobia (3.9% vs 1.7%), specific phobia (7.3% vs 2.1%), and panic disorder (5.2% vs 0%), underscoring the particular benefit of adopting a **transdiagnostic intervention approach applicable to all affected pre-adolescent offspring** of parents with BD.

According to the Brainstorm Consortium data (Consortium et al., 2018), at a population level, anxiety disorders have a high common variant genetic correlation with MDD ($r_g \approx 0.8$) but much lower overlap with BD and schizophrenia ($r_g \approx 0.2$). Yet, my meta-analysis shows that offspring of parents with BD have anxiety risks comparable to or even higher than those of parents with major depression. This discrepancy suggests that factors beyond common genetic variants are likely to be at play, which may include BD-affected family environments and gene-environment interactions, and more complex genetic contributions (e.g., rare, high-impact variants) not captured by common variant analyses. Prior research on broader populations also supports the role of the family environment in the intergenerational transmission of anxiety. Collectively, these insights emphasise the need to further explore how

parental BD influences parenting practices and family dynamics, thereby informing targeted early intervention to address anxiety disorders in offspring of parents with BD.

8.1.2: Exploring Evolving Dynamics of Parental Mood Swings and Children's Development Alongside BD-Specific Environmental Factors (Chapter 3, paper 2)

Chapter 3 presents a systematic review and meta-synthesis of qualitative literature to examine how parental BD shapes parenting behaviours and parent–child interactions across childhood and adolescence (ages 0–18). Building on Chapter 2's findings, which suggest that the BD-affected family environment may play a significant role in the elevated anxiety risk observed in offspring, this synthesis enriches my understanding of BD-specific family dynamics shaped by BD—such as inconsistent caregiving due to mood swings—by integrating lived experiences from parents and children. Spanning the full developmental trajectory provides contextual depth and comparative insights, guiding the design of targeted qualitative research on pre-adolescent children (aged 5-12) with anxiety problems (Chapters 4–6). The thematic synthesis generated four themes: **Theme 1, "The Multifaceted Landscape of Parenting with Bipolar Disorder,"** highlights how BD disrupts parental engagement (e.g., withdrawal in depression, or distractibility in mania), emotional regulation (irritability, impulsivity), and consistency (unpredictable caregiving and discipline), mitigated by support systems and medication. **Theme 2, "The Evolving Dynamics of Child-Parent Relationships Amidst Parental Bipolar Disorder,"** traces children's evolving responses—from early

confusion and self-blame to later awareness and proactive coping and caregiving responsibilities. **Theme 3, "The Dual Nature of Childcare for Parents with BD: Balancing Challenges and Rewards,"** captures the tension between prioritising childcare and self-care, describing childcare as both a stabilising, motivating force and a source of stress and guilt amid self-care struggles—highlighting bidirectional parent–child influences. **Theme 4, "Navigating Parental Challenges with BD,"** emphasises support needs, including strategies for promoting child well-being (e.g., monitoring hereditary risks), communication about BD, and self-care (e.g., peer support), with variations noted across gender (e.g., fathers' reluctance to seek help) and culture (e.g., East Asian family reliance vs Western social services). These themes frame Chapter 4-6 by demonstrating three pathways through which parental BD may shape the parenting environment: parenting behaviours (Chapter 4), child anxiety support (Chapter 5), and BD communication (Chapter 6). Each chapter considers the ongoing interplay of parental mood swings and children's developmental stages.

8.1.3 Understanding BD's Impact on Parenting Practices and Implications for Early Intervention (Chapter 4)

Chapter 4 investigates how parental BD shapes the parenting environment for pre-adolescent children (ages 5–12) experiencing anxiety problems, a crucial developmental stage marked by emerging psychopathology. Using qualitative interviews with parents, partners, and stakeholders, the chapter identified key intervention points by outlining three primary

challenges (1) **Mood-driven inconsistencies (Theme 1)**, where parental mood fluctuations disrupt discipline, engagement, and emotional regulation, creating an unstable family environment that heightens child anxiety and triggers vigilant "parent watching"; (2) **Reflective emotions (Theme 2)**, capturing how parents' reflections on BD-related parenting difficulties evoke emotional burdens such as guilt over past parenting lapses or anxiety regarding hereditary risks. These reflections are influenced by mood-driven perceptions but can also encourage proactive caregiving; and (3) **Role shifts (Theme 3)**, involving role reallocations to partners, extended family, or even children during BD episodes that reduce parental involvement and self-confidence and erode family trust in their parenting capabilities. To address these challenges, interventions were suggested at two distinct periods. **During bipolar episodes (Theme 4)**, three intervention points were highlighted: optimising BD treatment to stabilise moods and minimise side effects, providing practical parenting strategies and daily assistance, and fostering family collaboration in sharing caregiving responsibilities. **Between episodes (Theme 5)**, two further intervention points were identified: offering strengths-based, non-judgmental guidance to enhance parental confidence and self-acceptance (Subtheme 5.1), and developing peer support, family psychoeducation, and opportunities for parents to re-engage positively with their children to reduce isolation and rebuild trust (Subtheme 5.2).

Table 8.1. Treatment Implications from Chapter 4

Subtheme	Key points within the subtheme	Implications for treatment
1.1 Parenting Inconsistency in Boundary Setting	• Parental discipline and reactivity fluctuate with BD mood states (e.g., lax in depression, less tolerant in mania) • Differing approaches between parents with and without BD add further instability to rules and expectations	• **Addressing Parental Inconsistency**: Map low-energy vs high-energy mood shifts to typical discipline inconsistencies (e.g., lax screen-time vs abrupt rule changes), then in stable periods co-create concise "mood plan" listing the core rule, lead caregiver, and a micro-script • **Bridging Co-Parenting Gaps**: Facilitate joint sessions to agree on core household rules and discipline standards, and formalise a contingency plan empowering the non-BD supporting adult to enforce those boundaries during mood episodes
1.2 Parenting Inconsistency in Engagement	• Depressive phases prompt emotional disengagement, hindering active, responsive interaction with children • Manic phases drive heightened energy that can manifest as overly exuberant,	• **Addressing Depressive Withdrawal**: Schedule brief, predictable daily check-ins (e.g., a 5-minute "how was school?" chat) and use simple active-listening steps (e.g., mirror back feelings), that can be applied when energy is low, to stay emotionally present and soothe child anxiety • **Managing Manic/Hypomanic Engagement:** Support parents in channelling high energy into structured, age-appropriate activities that their child enjoys (e.g., craft projects, sports)

	boundary-crossing, or even unsafe involvement	and promote boundary awareness to prevent inappropriate engagement (e.g., treating the child as a peer)
1.3 Parenting Inconsistency in Emotional Regulation	• Shifting moods leave children anxious and hyper-vigilant, turning them into "parent watchers" • Consistent mood regulation strengthens parent–child bonds and fosters predictable, trusting interactions	• **Enhancing Emotional Regulation:** Train parents in daily mood tracking (simple app or chart; Tsanas et al., 2016) and consistent routines (social rhythm stabilisation; Steardo et al., 2020) to detect and manage emotional swings • **Reducing Child Hypervigilance:** Establish clear mood communication (e.g., fridge mood board or brief evening check-in) using reassuring language (e.g., "I'm feeling grumpy today, but I love you and it's not your fault")
2.1 Guilt-Induced Reflection on Past Parenting	• Parents may blame themselves for passing on vulnerability or for being absent during mood episodes • Reflecting on BD's influence on parenting drives proactive refinement of parental roles and strategies	• **Sensitive Psychoeducation about Child Anxiety:** In brief, collaborative sessions normalise anxiety as multifactorial (genetic, environmental, and situational), invite parents to map their child's triggers, and explicitly avoid linking it solely to BD • **Strengthening Caregiver Identity:** Co-create a "Parent Strengths Log" of recent caregiving wins and use affirmations (e.g., "You are the expert on your child"), explicitly separating BD symptoms from parental care (e.g., "My illness affects me, not my love for my child").

		• **Reframing Guilt as a Constructive Tool:** Support parents to consider guilt as a motivator for proactive parenting (e.g., shifting from "I've failed my child" to "I can use this feeling to improve"), and guide them to channel these feelings into specific, manageable actions (e.g., practising anxiety-management skills or openly discussing emotions together) and celebrate each success
2.2 Anxiety-Driven Future-Oriented Parenting	• Worries about relapse, genetic inheritance, or social service intervention lead parents to closely monitor moods and behaviours • Parental hypervigilance can heighten children's own anxiety as they absorb and mirror their parent's fears	• **Managing Parental Anxiety about Future Episodes:** Support parents in creating practical contingency plans (e.g., designating support persons, accessing mental health services) to reduce uncertainty, model resilience, and prevent anxiety transmission to children. • **Coping with Genetic Risk Concerns:** Provide balanced psychoeducation about genetic risks to reduce exaggerated fears and empower parents to take constructive actions, such as developing a "family wellness toolkit" or engaging in early interventions
2.3 Mood-Dependent Perception of Parenting Impacts	• Lows intensify parenting guilt and anxiety, deepening depressive spirals	• **Maintaining Awareness and Harm Reduction in Mania:** Use agreed external feedback (e.g., co-parent prompts) to enhance parental awareness during mania; proactively involve family members when parental control declines, reducing post-episode regret or depression

	• Highs blunt insight into parenting impacts, potentially causing delayed remorse	• **Addressing Emotional Overburden in Depression:** Help parents challenge negative thoughts by highlighting positive parenting experiences despite depressive symptoms; encourage tracking small caregiving wins (e.g., "I baked with my daughter today").
3.1 Balancing Dual Identities as Parent and Patient	• Parents juggle self-care and childcare, with children motivating treatment adherence and caregiving	• **Prioritising Self-Care as a Parenting Goal:** Encourage parents to prioritise personal rest self-care (e.g., brief hobby breaks, medication adherence) by framing it positively as essential to parenting (e.g., "Taking care of myself helps me better support my child"). • **Setting Boundaries and Supporting Child Adaptation:** Teach parents clear boundary-setting and effective communication about their self-care needs (e.g., "I need 10 minutes to recharge"), alongside teaching children age-appropriate self-soothing skills to manage anxiety independently during these times
3.2 Reallocation of Caregiving Roles to Sustain Family Stability	• Partners/family step in during episodes, reducing BD parent's role but straining others	• **Caregiving Transition Planning:** Help parents with BD proactively plan caregiving transitions involving partners or extended family to ensure consistency during parental disruptions • **Preventing Ripple Effects:** Guide parents to positively frame caregiving changes for children, while remaining mindful of potential strain on non-BD caregivers who step in.

3.3 Children Assuming Caregiving Roles in Response to Parental BD	• Children become self-sufficient or caregivers, facing emotional strain from responsibility	• **External Support Integration:** Guide parents to identify and secure consistent adult support networks (e.g., partner, crisis lines, social worker check-ins), shifting caregiving away from children
3.4 Obstacles to Restoring Parental Roles Post-Episode	• Reduced confidence and family trust hinder role resumption post-episode	• **Graded Role Reclamation and Bonding:** Guide parents to gradually resume caregiving tasks and facilitate joint family activities, rebuilding parental confidence, restoring parent–child bonds, and reducing children's need to seek emotional support elsewhere
4.1 Optimising Bipolar Treatment for Effective Parenting	• Effective BD treatment (e.g., medication) promotes parental stability and caregiving • Balance symptom control with treatment-related impacts on parenting (e.g., medication side effects, therapy time commitment)	• **Mood Monitoring and Time Management:** Teach parents mood tracking skills (e.g., daily logs) for early detection and timely intervention, and help them identify optimal periods to prioritise brief, meaningful caregiving tasks (e.g., a 10-minute bedtime story), preserving stability and connection with their child. • **Integrated Collaborative Care:** Combine child anxiety treatment with parental BD management by ensuring regular coordination between the child's therapist and the parent's mental health provider (e.g., psychiatrist or GP), optimising medication adherence and parental stability to enhance parents' capacity to support their child

4.2 Facilitating Resource Access to Practical Family Support	• Accessible and timely parenting resources address practical needs of both children and parents, especially in single-parent households	• **Proactive Crisis and Resource Planning:** Help parents proactively assign childcare responsibilities, coordinate with schools, and arrange community supports (e.g., transport, meal prep, digital CBT prompts). Provide rapid-response resources (e.g., 24/7 helplines) and easy access to local parenting programmes and trained volunteer support. • **Enhancing Support for Single Parents with BD:** Offer additional individual check-ins (e.g., extra phone calls), connect parents to community support (e.g., parenting mentors, respite care), and provide simplified strategies (e.g., brief time-management tools) to sustain consistent parenting during difficult periods
4.3 Promoting Family Collaboration in Managing BD-Related Challenges	• Family therapy, communication, and caregiver empowerment improve stability	• **Co-caregiver Collaboration**: Actively involve co-caregivers (e.g., partners, grandparents) in key sessions (anxiety education, core CBT techniques), facilitate clear communication, shared goal setting, collaborative problem-solving, delegate tasks by family strengths to enhance resilience and mutual support
5.1 Strengths-Based Guidance for Parents with BD	• Strengths-based support promotes self-acceptance and confidence without reinforcing a “sick role”	• **Employing Empowering Language**: Use neutral language (e.g., “high or low mood/energy” rather than “manic or depressive episode”) to reduce self-stigma, and clearly frame interventions as enhancing parenting strengths and reinforcing parents’ active

	• Non-judgmental, empowering delivery focuses on helping the child, not parental shortcomings	caregiving role rather than their patient identity, focusing on child-centred solutions rather than parental shortcomings
5.2 Strengthening Support through Shared Experiences	• Shared peer experiences reduce isolation, validating and empowering parents • Shared family understanding through psychoeducation fosters trust and strengthens relationships • Shared positive family interactions shift focus from illness to resilience and connection	• **Promoting Positive Parent–child Interactions:** Encourage regular, enjoyable interactions unrelated to anxiety (e.g., playful games, relaxation exercises, family rituals) to strengthen bonds and foster children's sense of safety and belonging • **Enhancing Family Trust through Family-focused Psychoeducation:** Educate family members about BD's impact on parenting and child anxiety (e.g., recognising early episode signs, managing mood changes, understanding children's emotional needs) • **Integrating Peer Support:** Include structured peer-support components (e.g., parent groups, buddy systems) to normalise challenges, share practical tips, a**nd** reducing isolation and stigma

8.1.4 Understanding Parental Support for Child Anxiety and Implications for Early Intervention (Chapter 5)

Chapter 5 builds upon Chapter 4 by narrowing its focus from the broader parenting environment to examine specifically how parental BD influences support provided to pre-adolescent children experiencing anxiety problems, based on qualitative interviews with parents, partners, and stakeholders. The chapter highlights BD's dual role in parental support. **As a resource (Theme 1),** parents' lived experiences of BD enhance empathy, emotional openness, and proactive help-seeking, fostering a nurturing environment for managing child anxiety. Conversely, **BD presents significant challenges (Theme 2)** to managing children's anxiety through two main pathways. Externally, mood swings and inconsistent parenting lead to an unpredictable home environment, which can directly worsen child anxiety. Meanwhile, internally, the emotional toll of managing BD reduces parents' ability to provide consistent support for their child's anxiety. Chapter 5 further identifies specific support needs—empowerment and adaptability—to mitigate challenges and harness BD's potential benefits. It emphasises **empowering parents as central figures** in supporting child anxiety **(Theme 3)** by fostering sensitive communication about BD's impact, enhancing their emotional stability and self-awareness, and equipping them with practical caregiving strategies that leverage their empathy and lived experience. Additionally, it underscores the importance of **flexible, tailored interventions (Theme 4),** offering accessible programme delivery and realistic, ongoing

practical support to accommodate parents' fluctuating emotional states and everyday constraints.

Table 8.2. Treatment Implications from Chapter 5

Subtheme	Key points within the subtheme	Implications for treatment
1.1 Leveraging Parental BD Experiences to Enhance Empathy in Child Anxiety Support	• Parental BD experiences (personal anxiety, treatment history) can deepen empathy towards their child • Parents' empathy can help validate child emotions and facilitate early help-seeking • Negative past treatment experiences may cause parents to hesitate or avoid professional support	• **Leveraging Parental BD Experiences**: Integrate structured reflection into interventions to guide parents to identify coping strategies from their own anxiety experience. Help parents sensitively validate their child's anxiety without projecting personal feelings (e.g., guided active listening practice). • **Addressing Parental Hesitation and Concerns**: Highlight the aspects of the current intervention that may differ from parents' past negative therapy experiences (e.g., methods, context). Build trust using scientific data and relatable success stories. Ensure regular opportunities for feedback and questions to address treatment apprehension and challenges.
1.2 Transforming Guilt into Action: Reflection-	• Guilt over BD's impact on children drives self-blame but can motivate proactive support.	• **Acknowledging and Reframing Parental Guilt:** Validate parents' guilt as common, given BD's challenges, normalising these feelings.

Driven Strategies for Child Anxiety Support	• Supporting children reduces parental doubt.	Help parents to transform guilt into proactive parenting motivation (e.g., shifting from "I have failed my child" to "I can support my child's anxiety management"), guiding parents to apply practical anxiety-management strategies with their child • **Enhancing Parental Self-Efficacy:** Highlight and celebrate small successes to build parental confidence and reduce their self-doubt
1.3 Facilitating BD-Related Conversations to Foster Understanding and Emotional Security	• Open BD talk to reduce child confusion/fear. • Children may hide anxiety to protect fragile parents. Modelling emotional openness aids expression.	• **Open Communication about BD:** Teach parents age-appropriate ways to explain BD (e.g., describing mood swings or hospitalisation simply, reassuring the child they're not at fault), and encourage regular, open discussions of feelings (e.g., modelling emotional openness) • **Managing Protective Behaviours:** Support parents to identify when their child might be suppressing anxiety to protect them, and explicitly reassure children that expressing anxiety is safe (e.g., the child's worries won't worsen the parent's condition), and help parents develop strategies to manage this

2.1 BD Shapes an Anxiety-Prone Family Environment	• Mood swings create unpredictability, increasing child anxiety. • Stability/hypomania fosters security • Separations (e.g., hospitalisation) disrupt stability.	• **Establishing Stability through Family Routines:** Help families create consistent daily routines (e.g., bedtime rituals, visual schedules) and family activities (e.g., reading time) to foster predictability and emotional security • **Planning for Parental Mood Episodes:** Guide families to develop contingency plans for managing child anxiety during parental mood episodes (e.g., discussing potential hospitalisation), involving alternative caregivers trained to support child anxiety and maintain consistent routines
2.2 BD Limits Emotional Resources for Supporting Child Anxiety	• BD strains parental emotional capacity, reducing patience for child anxiety • Mood episodes hinder empathy and mental space.	• **Simple, Low-Demand Techniques:** Provide parents with brief, structured anxiety-management tools (e.g., "Three-step anxiety talk"). Offer visual prompt cards, smartphone app reminders, or pre-planned scripts for quick reference, reducing cognitive load and improving sustained implementation
3.1 Empowering Parents through Sensitive Communication of BD-Anxiety	• Sensitive BD-anxiety discussions avoiding blame, fostering engagement. • Judgment heightens guilt and disengagement.	• **Proactive Management of Parental Sensitivity**: Proactively normalise parental feelings of guilt and anxiety at the outset of treatment (e.g., "Feeling uneasy is natural; we'll

		handle this together") and conduct regular emotional check-ins for timely support • **Focusing on Child Wellbeing and Family Strengths**: Use sensitive, non-pathologising language to frame intervention around enhancing child wellbeing and building family resilience, emphasising parents' existing strengths and efforts (e.g., "These tools build on what you're already doing well"), rather than highlighting parental deficits or focusing narrowly on BD's link to anxiety.
3.2 Empowering Parents to Build Stability and Reduce BD's Impact on Child Anxiety	• Stability reduces anxiety triggers. • Support networks enhance security • Shared BD-anxiety strategies motivate self-care.	• **Developing Shared Family Coping Strategies**: Encourage joint parent–child anxiety-management activities (e.g., shared "worry box"), with parents modelling effective coping behaviours (e.g., "when I feel overwhelmed, I do this - let's try it together"). • **Enhancing Parental Mood Awareness and Regulation**: Help parents regularly track their own mood and behaviours (e.g., simple mood logs) to identify emotional patterns and triggers, enabling proactive adjustments in caregiving (e.g., "I'm feeling irritable today - how might this affect my child?").

3.3 Empowering Parents to Apply Their Experiences and Skills in Supporting Child Anxiety	• Parent-led interventions targeting family dynamics to reduce anxiety triggers and stigma • Enhancing parental self-awareness and mentalisation for better emotional understanding and responses	• **Promoting Parental Mentalisation:** Therapists can model responses to parents' emotions (e.g., active listening, reassurance, dismissal), guiding parents to reflect on these experiences and improve support for their anxious child. • **De-stigmatising Communication:** Help parents use positive, normalising language (e.g., "Feeling nervous is natural; let's tackle it together") to reduce children's sense of isolation and self-blame, which may be heightened by the stigma associated with parental BD
4.1 Flexible Treatment Delivery Tailored to Parental Condition	• Low mood/work demands reduce engagement. • Online sessions, flexible timing, and early intervention improve access.	• **Flexible Intervention Delivery Using Digital Tools:** Provide diverse intervention formats (e.g., hybrid online/in-person sessions, modular self-paced resources) tailored to accommodate parents' fluctuating emotional states and practical needs. Provide accessible, immediate digital supports (e.g., app-based check-ins, brief motivational prompts, or a specifically trained AI chatbot). • **Flexible Scheduling to Fit Parental Needs:** Offer flexible session scheduling (e.g., evenings/weekends), short micro-sessions (e.g., 15-20 min), adjustable intervention timelines,

		booster sessions, and on-demand therapist support (e.g., messaging).
4.2 Achievable Treatment Approach Tailored to Parental Condition	• BD hinders consistent technique use • Simple, interactive, and supported approaches enhance applicability.	• **Setting Realistic Treatment Goals:** Collaborate with parents to set achievable, tiered intervention goals (e.g., smaller, easily manageable steps when energy is low), integrating simple mood-monitoring (e,g., weekly scale) to dynamically adjust session content. Normalise a "good enough" parenting approach to reduce pressure and enhance engagement • **Providing Ongoing Professional and Peer Support:** Establish continuous support mechanisms beyond scheduled sessions, such as accessible helplines, or peer support networks (e.g., virtual groups), allowing parents to share experiences, offload emotional burdens, and maintain consistent application of CBT techniques despite mood fluctuations

8.1.5 Understanding Communication about BD and Implications for Early Intervention (Chapter 6)

Chapter 6 provides a focused examination of how parents with BD communicate about their condition with their pre-adolescent children. The analysis yielded four key themes that

characterise these communicative experiences**. Theme 1: Perceived Advantages of Communication** revealed potential positive outcomes, primarily concerning children's mental health (mitigating misconceptions, anxiety, and isolation; promoting psychological maturity) and the quality of the parent–child relationship (fostering bonds, trust, and emotional reciprocity). **Theme 2: Perceived Challenges of Communication** captured significant barriers encountered by parents, notably fears of causing emotional distress to their children, uncertainty regarding communication content, timing, and approach, and concerns about stigma and children's potential reactions. **Theme 3: Key Elements for Effective Communication** underscored the importance of providing age-appropriate information, directly addressing children's unique concerns, offering reassurance of consistent parental love and stable identity, and proactively preparing children for future episodes by discussing coping strategies and boundaries. **Theme 4: Principles of Effective Communication** emphasised the value of transparency and interactive dialogue, strategic timing and context for initiating conversations, and the involvement of wider family networks and professionals. These strategies align with the broader literature on parent-child communication about parental mental illness, particularly the Family Talk Intervention framework, which emphasises the importance of fostering open communication, reducing stigma, and increasing mutual understanding within families affected by mood disorders (Beardslee et al., 2003; Beardslee et al., 2007). The treatment implications in **Table 8.3** build upon Chapter 6 and the Family Talk

Intervention framework to develop strategies that support parent-child communication in the context of parental BD.

Table 8.3. Treatment Implications from Chapter 6

Subtheme	Key points within the subtheme	Implications for treatment
1.1 Promoting Understanding and Reducing Misconceptions in Children	• Children form misconceptions about BD without clear information, leading to fear • Honest communication reduces anxiety and self-blame • Enhances empathy and maturity	• **Provide structured psychoeducation resources** (e.g., age-tailored storybooks, visual aids, interactive family workshops) to help parents explain BD symptoms and related behaviours clearly and concretely. • **Enhance Child Empathy**: Support parents to facilitate perspective-taking activities with their children (e.g., prompting them to imagine, "How might Mum/Dad feel when…?"), to deepen children's understanding and empathy towards their parent's emotional experiences during BD episodes.
1.2 Fostering Expression and Strengthening Bonds in Children	• Open BD talks encourage emotional expression, reducing isolation • Build trust and strengthens parent–child bonds.	• **Facilitating Emotional Openness**: Guide parents to create a safe environment for children to share difficult emotions (e.g., daily emotion check-ins, parental modelling of openness), reducing emotional suppression and anxiety about upsetting the parent

	• Helps during separations (e.g., letters).	• **Strengthening Parent–Child Trust and Connection**: Support parents to foster mutual trust and emotional security through honest, age-appropriate conversations about BD and collaborative bonding activities (e.g., creating a family coping plan), reducing children's anxiety about relationship unpredictability.
2.1 Fears of Placing Emotional Burdens on Children	• Parents fear discussion of BD may distress or confuse children. • Concerns about hereditary risks or past episodes (e.g., suicide) burdening children • Complicated if child has anxiety.	• **Managing Mutual Protective Avoidance:** Teach parents to recognise and gently interrupt patterns of mutual avoidance by encouraging brief, open dialogues about each other's feelings (e.g., casual daily check-ins) while maintaining clear boundaries • **Gradual Communication for Sensitive BD Topics:** Guide parents to overcome fears of overwhelming 5-12-year-olds by starting with low-stakes BD talks (e.g., "I get tired sometimes") to gain confidence, then supporting tailored discussions on high-stakes topics (e.g., past suicidality, genetic risk) with rehearsed, sensitive strategies
2.2 Self-Acceptance and Stigma as Barriers to Communication	• Parental discomfort with the BD diagnosis limits disclosure	• **Foster Self-Acceptance for Open Communication:** Guide parents via psychoeducation and peer support to reflect on

	• Fear of being seen as unreliable may shift family roles. • Stigma extends to community perceptions.	their feelings about BD (e.g., diagnosis, stigma), building acceptance to share experiences with children. For those avoiding discussion due to non-acceptance, start with basic BD facts and highlight the effects of avoidance (e.g., child self-blame) to spark motivation. • **Addressing Fears of Child's Negative Perception:** Support gradual parenting role recovery and associated trust while challenging unfounded fears of children's negative reactions to BD disclosure (e.g., behavioural experiments)
2.3 Uncertainty in Communicating about BD	• Parents are unsure about what, when, and how to share information about BD. • BD's unpredictability and heritability complicate explanations • Timing varies according to child maturity.	• **Addressing Parental Communication Uncertainty**: Normalise and validate parents' common uncertainty and anxieties about what, when, and how to communicate regarding BD (e.g., via psychoeducation, peer support) to reduce related distress and enhance readiness for sensitive conversations • **Managing Communication Uncertainty:** Equip parents with targeted FAQ resources that provide clear responses to common child questions and integrate role-play simulations to build their confidence in handling unpredictable inquiries

3.1 Age-Adaptive Communication	• Start with family-relevant issues, using simple language for young children. • Older children can comprehend more detailed information (e.g., websites). • Tools like stories and mood charts aid conversations.	• **Linking Family Changes to BD**: Encourage parents to initiate conversations about BD by addressing concrete family events or changes relevant to the child (e.g., separation, moving), helping the child connect the abstract illness to their tangible experiences • **Using Simple Language and Analogies**: Help parents explain BD with familiar, everyday terms (e.g., "My brain acts funny"), relatable analogies (e.g., "Moods are like weather"), and engaging resources such as story characters or children's storybooks, tailored to the child's experience and family context • **Providing Explanatory Tools**: Equip parents with age-specific materials, emphasising storybooks/narratives as tools to actively guide dialogue about BD challenges and coping, alongside visual aids like mood charts, to improve understanding and ease explanation
3.2 Addressing Children's Concerns and Misconceptions	• Two-way conversations reduce guilt and worry about BD severity • Clarify misunderstandings (e.g., BD vs physical illness)	• **Balancing Proactive and Reactive Communication:** Teach parents to pre-prepare clear responses in advance for common concerns (e.g., "I'm not depressed because of you") and foster child-led dialogue that encourages open

	• Reassure children about genetics and available support.	questions and emotional expression (e.g., guided discussions) • **Addressing Common High-Anxiety BD Questions:** Equip parents with clear, reassuring scripts and techniques to confidently answer children's common concerns about BD, including self-blame, triggers, severity/mortality, heritability, and misconceptions.
3.3 Reassuring Consistent Love and Personality	• Assure children that BD is temporary, and that love is constant. • Distinguish BD from the parent's core self • Show effort despite episodes.	• **Reinforcing Consistent Parental Love and Identity:** Help children distinguish illness-driven behaviours from the parent's true personality using gentle metaphors (e.g., moods as weather, energy as batteries), consistently expressing unconditional love verbally (e.g., "I love you no matter what") and through gestures (e.g., hugs, active listening) to enhance emotional security and reduce anxiety.
3.4 Preparing and Supporting Children for Future BD Episodes	• Prepare children for episodes to build resilience, rather than caregiving roles. • Explain parental needs simply (e.g., "I need quiet"). • Offer child-friendly support ideas.	• **Planning for Manageable Mood Shifts:** Help children prepare for the fact that parental moods will rise and fall by explaining in simple terms that everyone has "high" and "low" energy days, framing it positively (e.g., "We've got a plan that works"), and co-creating a concise "Coping Maps" with the child that list who can help on

		each type of day (e.g., “On my low-energy days, Grandma takes you to the playground”) • **Maintaining Clear Boundaries:** Discuss simple supportive actions with children (e.g., "A hug helps when I'm tired") and collaboratively create “Responsibility Cards” (e.g., “I can cheer Dad up with a drawing, but Mum’s care is for grown-ups”), fostering control while clearly delineating adult caregiving roles
4.1 ‘How to Communicate’ - Transparency and Two-Way Conversation	• Vague communication raises anxiety; transparency reduces it. • Two-way dialogue validates children’s questions. • Sensitivity to children’s readiness is key.	• **Balancing Transparency and Sensitivity:** Guide parents to communicate honestly and clearly about BD, while sensitively adjusting language and detail according to their child’s emotional cues, ensuring information is neither too vague nor overwhelming • **Two-Way, Emotionally Attuned BD Dialogue:** Support parents to blend responsive, child-led interaction (e.g., inviting children’s questions and emotions) with clearly delivered, pre-planned BD messages, flexibly adjusting explanations based on children’s cues to foster safe, genuine dialogue

4.2 'When to Communicate' – Timing and Context Consideration	• Timing varies by maturity, symptoms, or natural cues (e.g., media) • Stable moments and preparation enhance conversations. • Early discussion avoids surprises.	• **Emphasising Early, Proactive Communication:** Encourage parents to gradually share age-appropriate BD information early—before misconceptions or relationship harm occur— to build accurate understanding, normalise the topic, and avoid future disclosure shocks, without underestimating children's existing awareness. BD • **Timing BD Conversations for Emotional Stability**: Help parents identify emotionally stable periods (e.g., through mood self-monitoring) to initiate calm, age-appropriate BD discussions with children, minimising anxiety caused by parental mood instability. • **Combining Planning with Created Natural Opportunities:** Help parents prepare structured BD conversations (e.g., scripting reassuring messages) and intentionally create natural-feeling opportunities (e.g., reading BD-related stories) for informal, child-friendly discussions.
4.3 'Who Should Communicate' – Family and Professional Support	• Joint conversations with partners or professionals aid explanation • "Well" parents lead in crises, professionals prepare or guide.	• **Enhancing Professional-Led Support:** Equip professionals to flexibly support parents in preparing clear, age-appropriate BD explanations

	• Coordination with teams varies by need.	(e.g., metaphors, structured Q&A) or facilitate conversations directly when needed • **Facilitating Unified Family and Crisis Communication:** Equip professionals to guide parents and extended family with structured tools (e.g., family handbooks, scripts for daily and crisis situations) to ensure clear, reassuring BD messaging, reducing children's anxiety. • **Strengthening Cross-Professional Collaboration:** Establish protocols for coordinated communication between adult mental health services (focused on parental BD, communication challenges) and child mental health services (focused on child anxiety, BD understanding), ensuring consistent messaging to reduce child anxiety.

8.1.6 Integrated Synthesis of Treatment Implications from Chapters 4 to 6

Chapters 4 to 6 highlight that parental BD is characterised not only by its emotional duality but also by its dual impact on the family environment, as illustrated in **Figure 8.1**. On one hand, challenges stemming from mood fluctuations can negatively affect factors within this environment, such as increasing parenting stress, reducing parental confidence and consistency, and impacting family cohesion/conflict and stability/safety. On the other hand, the

lived BD-related experience may serve as a resource, positively influencing factors such as childcare motivation, personal growth, family resilience, BD-informed parental support, and communication about BD. Collectively, this complexity underscores the need for empowerment and flexibility within intervention frameworks, leveraging the strengths derived from BD experience while mitigating the negative impacts of its challenges on parental, parent–child, and family-wide factors. Empowerment balances the patient role ("It's understandable that you feel challenged by BD") and the parent role ("You can, because you are the expert on your child"), aiming to restore parental confidence, reduce parenting stress, equip parents and other key figures within the support system (e.g., extended family, community, professionals) to provide effective support, and enable children to understand and cope with parental mood fluctuations. Flexibility emphasises adapting intervention delivery and content according to the dynamic family environment—considering parental emotional states, co-parenting challenges, and children's developmental needs—as well as available support system resources. This nuanced understanding of the family environment establishes the critical need to evaluate interventions designed to address these complexities; accordingly, Chapter 7 provides a systematic review of existing parent- and family-focused treatments for children at familial risk of BD.

Figure 8.1. Dual Pathways of Parental BD: Challenges and Resources Impacting Child Mental Health (Summarised from Chapters 4–6)

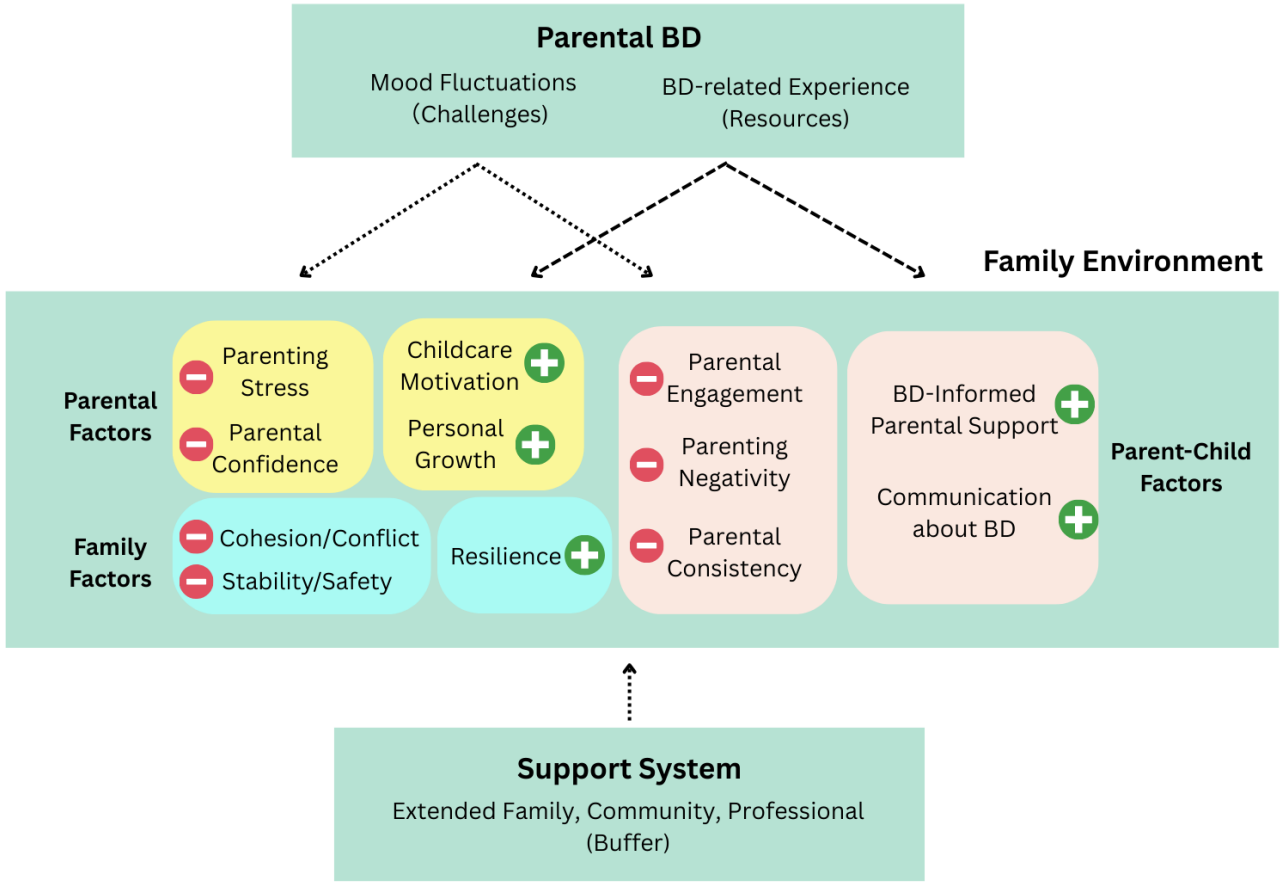
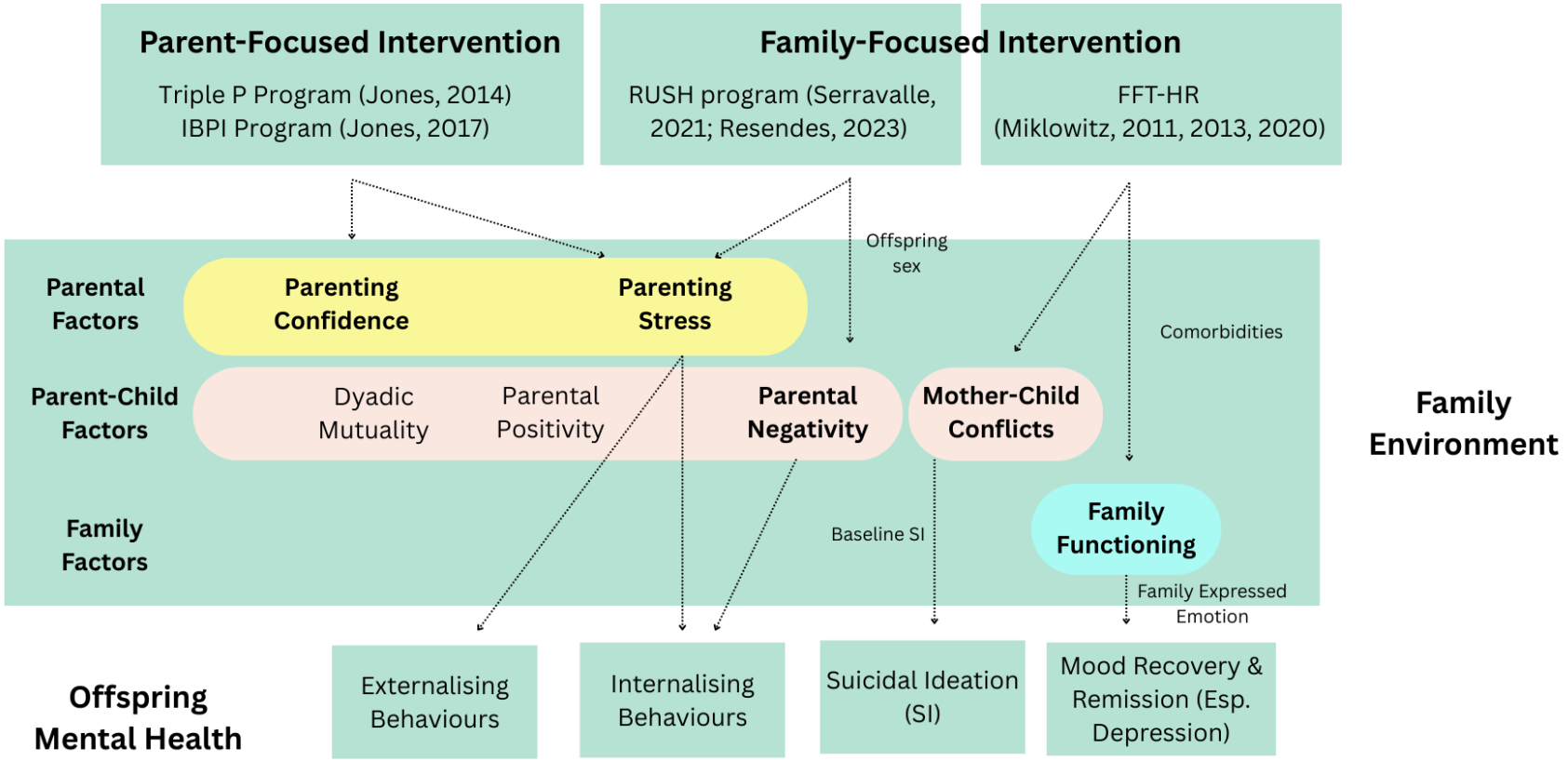


Figure 8.2. Synthesis of Chapter 7 Findings: Mechanisms, Moderators, and Outcomes of Parent- and Family-Focused Interventions for Youth at Familial Risk of BD



8.1.7 Response to Identified Needs and Insights into Efficacy, Acceptability, and Mechanisms of Parent- and Family-Focused Interventions (Chapter 7)

In response to the dual impact of parental BD on the family environment outlined in Chapters 4–6, Chapter 7's review demonstrates that parent-focused and family-focused interventions directly strengthen the family environment by targeting key pathways impacted by BD—particularly reducing parenting stress, lowering parent–child negativity and conflict, and bolstering overall family functioning. These improvements lead to significant positive effects on child mental health, including reductions in internalising and externalising symptoms among pre-adolescent children, as well as enhanced mood recovery (from depression) and reduced suicidal ideation among adolescents with mood disorders. Furthermore, these interventions operationalise the principles of empowerment and flexibility highlighted in Chapters 4–6: empowerment is fostered through BD-informed psychoeducation and collaborative skill-building, while flexibility is achieved via adaptable delivery formats tailored to families' changing needs and children's developmental stages—including scalable online parent-only models for younger children (IBPI, ages 3–10), parallel parent–child programmes for middle childhood (RUSH, ages 6–11), and family psychoeducation combined with skills training for adolescents with mood symptoms (FFT-HR, ages 9–17). These approaches demonstrated generally good acceptability, with completion/retention rates (used as proxies for acceptability) ranging from 75% to 100% in structured and face-to-face formats. Higher

variability was noted in unsupported online delivery (42%–96%), although retention improved significantly when phased module release and BD-specific content were introduced (Jones et al., 2017 vs Jones et al., 2013). Collectively, these findings support a family-environmental intervention framework that effectively balances empowerment and flexibility to optimise child mental health outcomes within families facing BD risk, as summarised in **Figure 8.2**.

Currently, none of the existing parent-focused or family-focused interventions specifically target anxiety disorders among children at risk for BD. Chapter 5 highlights how "empowering" parents enables them to leverage their BD experiences to better support their children's anxiety problems, making parent-led Cognitive Behavioural Therapy (PL–CBT) a potentially suitable intervention in this context. PL–CBT aligns closely with the empowerment principle by directly equipping parents with practical strategies to manage child anxiety, while simultaneously addressing parental behaviours that maintain anxiety. Evidence indicates that PL–CBT is as efficacious as, and more cost-effective than, solution-focused brief therapy (Creswell et al., 2017); yields recovery rates on the Clinical Global Impressions–Improvement (CGI-I) scale comparable to those observed in a major child-focused CBT trial (Piacentini et al., 2014); and achieves outcomes similar to those of combined parent–child CBT (Creswell et al., in review). Furthermore, PL–CBT demonstrates promising continued improvements after treatment ends (Creswell et al., in review) and sustained beneficial effects lasting 3–5 years (Brown et al., 2017). Its diverse delivery formats—including therapist-supported bibliotherapy,

online, group and individual options—further enhance flexibility and accessibility (Creswell et al., In Review). Importantly, by targeting anxiety through parents, PL–CBT provides a scalable intervention that parents can apply to multiple children, effectively accommodating the fluctuating and complex demands experienced by families affected by parental BD.

The Online Support and Intervention for Child Anxiety (OSI) programme, a therapist-supported, parent-led online CBT intervention, may be particularly suitable for families affected by parental BD because its flexible, on-demand modules and brief check-ins adapt to mood fluctuations, and its modular framework can readily incorporate BD-specific content. OSI comprises eight interactive multimedia modules, including anxiety psychoeducation, graded exposure with embedded behavioural experiments to test and update anxious predictions, problem-solving, and fostering child independence, supported by structured therapist telephone check-ins to help parents implement anxiety-management skills with their children (Hill et al., 2022). A pragmatic non-inferiority randomised controlled trial demonstrated that OSI achieved comparable anxiety outcomes to usual care for children aged 5–12 years in real-world clinical settings, substantially reducing therapist contact time (an average of 3.0 hours vs 5.1 hours in usual care), thus enhancing accessibility and freeing resources to incorporate tailored content for BD-affected families (Creswell et al., 2024). **Table 8.4** uses OSI as a framework and integrates treatment implications from Chapters 4–6,

proposing a tailored, empowering, and adaptable intervention optimally suited to families at BD risk.

Table 8.4. Implications for Modifying Existing OSI Modules

OSI Modules	Proposed Adaptation	Rationale for Adaptation
Module 0: Welcome Introduces parents to the OSI platform, explains how the programme works, and orients them to using the website and support sessions	Introduce a brief "Your Feelings Matter" section, using supportive text or video to **normalise common emotions experienced by parents with BD** (e.g., worry, frustration, guilt), framing these feelings positively as expressions of parental care and motivation to engage proactively with OSI.	Normalising diverse emotional experiences early reduces self-blame and stigma among parents with BD, fostering proactive, strengths-based engagement with OSI to effectively manage their child's anxiety.
	Clearly emphasise **"good enough" parenting** throughout OSI (particularly Modules 0 and 1), and add examples of imperfect but effective parental efforts, reinforcing that even small steps meaningfully support their child's anxiety management.	Explicitly normalising "good enough" parenting mitigates guilt and perfectionism common among parents with BD, reducing emotional pressure and enhancing sustained engagement in the programme.
	Embed **affirmations** within OSI's introductory materials and app notifications that explicitly validate the unique caregiving strengths of parents with BD derived from their mood experiences (e.g.,	Explicit caregiver affirmations counteract parenting self-doubt commonly experienced by parents with BD, reframing their lived experiences

	"Your expertise in managing life's emotional ups and downs helps you support your child effectively").	positively, thus strengthening their emotional readiness and sustained engagement with OSI.
	Use **neutral mood language** (e.g., "high or low mood/energy") such as "Even on a low-energy day, your support makes a difference," instead of clinical labels like "manic/depressive episode"	Neutral wording reduces self-stigma and patient identity among parents with BD, reframing mood variations as manageable, thereby enhancing their confidence and engagement in OSI's parent-led anxiety interventions.
	Add a concise "**How OSI is Different**" section highlighting OSI's unique strengths—such as short, flexible sessions, a focus on parental empowerment, and relatable parent success stories (via text or brief videos)—to positively differentiate OSI from previous therapeutic experiences parents with BD may have had.	Clearly emphasising OSI's distinctive strengths and including relatable success stories builds immediate trust, credibility, and optimism, helping parents with BD confidently engage in the programme and effectively manage their child's anxiety.
Module 1: Get Ready Provides psychoeducation on child anxiety (including its symptoms and maintenance cycle) and guides parents in	Include a concise "**How Your Bipolar Disorder and Parenting Intersect**" subsection in Module 1 ("About Anxiety") with brief BD-specific psychoeducation (e.g., how parental mood fluctuations can influence child anxiety), relatable examples of parenting shifts during mood shifts, and an imaginative empathy prompt inviting	By integrating targeted psychoeducation on the interplay between BD and child anxiety, we address common misconceptions and foster understanding and optimism. Coupled with empathy-building examples, this helps parents with BD recognise and reduce mood-driven inconsistencies, fostering a

setting SMART treatment goals.	parents with BD to reflect on their child's need for consistent and stable care.	predictable environment that supports effective anxiety management for their child.
	Add a "**Consistent Parenting Plan**" exercise in Module 1 ("Setting Goals"), guiding parents with BD to proactively select manageable rules during stable periods (e.g., bedtime routines), using structured prompts and an OSI app template to maintain parenting consistency despite mood fluctuations.	Establishing a predefined parenting plan helps parents with BD reduce mood-related inconsistencies, enhancing predictability and emotional security for their child, and thereby supporting effective anxiety management within OSI.
	Include a collaborative reflection prompt titled "**What Do You See?**" at the end of the psychoeducation section, openly inviting parents with BD to share their thoughts and feelings about potential reasons behind their child's anxiety (e.g., school pressures, family changes), to uncover and gently address negative attributions and emotional responses.	Openly asking parents about their perceptions encourages honest expression of negative self-attributions or emotions, helping to reduce self-blame, normalise their experiences, and promote balanced, supportive engagement with OSI.

	Adjust OSI's SMART goal setting to a flexible **three-tiered system** (Minimal, Moderate, Optimal) allowing parents with BD to choose and adjust goals weekly based on their mood-related capacities.	A tiered goal structure accommodates the fluctuating energy levels common in BD, ensuring consistent parental engagement without overwhelming them, thus maintaining progress and motivation in managing their child's anxiety.
	Invite a **co-parent or supportive adult** to join existing OSI sessions—or offer additional optional joint sessions—at key treatment milestones (e.g., goal setting, Step Plan creation), to align parenting strategies with the parent with BD.	Involving another caregiver can help ensure consistency and unified implementation of OSI strategies, minimising parenting disruptions caused by mood fluctuations, supporting the parent with BD, and reducing confusion for the child.
	Include a jointly completed **"Consistency Plan"** worksheet alongside enhanced observer-account features (shared goal tracking, Step Plan updates, co-parent messaging, and structured handover checklists) to help parents collaboratively define unified parenting rules, assign mood-based roles, and smoothly transition responsibilities during mood fluctuations in the parent with BD.	This combined approach prevents inconsistent parenting, supports clear communication between parents, and ensures continuous, effective management of child anxiety during parental mood disruptions, reducing pressure on the parent with BD and confusion for the child.

	Incorporate a brief weekly **parental mood check-in** (using a 1–5 scale with an optional prompt regarding confidence levels) into OSI's app/platform, using results to dynamically tailor session content complexity based on the parent with BD's emotional state.	Regular mood monitoring allows timely adaptation of OSI tasks, ensuring parents with BD remain consistently engaged and capable of effectively applying CBT strategies for their child's anxiety despite mood fluctuations.
Module 2: Have-a-Go Thinking Teaches parents how to elicit their child's anxious thoughts, practice "have-a-go" alternative thinking and reduce reassurance-seeking.	Include a "Practice Responding" activity, using therapist-modelled examples or interactive website exercises with reflective prompts that encourage parents with BD to draw on their own emotional experiences to **better understand and empathetically respond to their child's anxiety**.	Reflecting on personal emotional experiences enhances empathy and self-awareness in parents with BD, guiding them to provide thoughtful, child-focused responses that avoid mood-driven communication pitfalls.
	Provide scripts or audio examples demonstrating how parents with BD can empathetically validate their child's anxiety by **appropriately sharing personal emotional experiences** (e.g., "When I feel worried, I feel shaky; how about you?"), without projecting their own anxiety.	Structured examples leverage the empathy and emotional insight of parents with BD while clearly defining boundaries to prevent emotional projection, improving their effectiveness in reducing their child's anxiety.

	Introduce a "Noticing and Encouraging Openness" section to help parents with BD recognise **child anxiety suppression triggered by parental mood shifts** (e.g., the child appears overly quiet when the parent feels off), providing curiosity-driven scripts and exercises for encouraging openness if suppression occurs (e.g., "I'd love to know how you're feeling—your worries won't upset me").	Guiding parents with BD to recognise anxiety suppression and respond sensitively ensures appropriate emotional support, enhancing effective parent–child communication without intrusiveness.
Module 3: Gradually Testing Fears Guides parents and children through creating a graded "Step Plan" for exposure tasks, complete with rewards, to confront and overcome fears.	Enable parents with BD to **track small successes** on Step Plans, accompanied by celebratory app notifications, visual milestones, and structured reflection activities to reinforce progress.	Celebrating small parenting successes explicitly counters self-doubt in parents with BD, building their confidence and enhancing sustained engagement with OSI's CBT techniques.
	Allow parents with BD to briefly consult therapists via OSI's platform/app (limited to 2–3 messages per week, with responses within 24–48 hours) for timely support during mood fluctuations or parenting challenges.	Asynchronous therapist messaging provides flexible and timely guidance during mood swings (e.g., depressive lows or manic highs), helping parents adapt strategies promptly, ensuring consistent and effective anxiety management for their child.

Module 4: Becoming Independent and Controlling Worries Offers strategies to build age-appropriate independence and introduces the “Worry Box” and “Worry Time” techniques to contain and manage worry.	Include a “Setting Boundaries” worksheet in Module 4 to help parents with BD clearly **define and communicate self-care needs**, linked explicitly to existing OSI independence tasks, with practical boundary-setting examples (e.g., "I need a 10-minute break—can you try making your bed in the meantime?") and a log to track child responses.	Clear boundary-setting guidance enables parents with BD to take necessary self-care breaks without confusing or worrying their child, reinforcing structured autonomy and directly supporting Module 4’s goal of fostering independence.
	Expand Module 4's "Worry Box" by adding an optional "**Family Worry Box**" activity, specifically for cases where children have difficulty openly sharing worries; guide parents with BD to carefully model openness by briefly sharing manageable concerns, emphasising child-led anxiety discussion rather than transferring emotional burdens.	This conditional and carefully structured approach helps parents with BD foster openness and emotional expression in anxious children, clearly modelling healthy communication without inadvertently increasing the child’s emotional burden.
Module 5: Problem Solving Introduces a structured five-step problem-solving	Include a structured reflection activity ("**Your Problem-Solving Journey**"), prompting parents with BD to reflect on their personal anxiety coping methods and discovery process, emphasising parental	Reflecting on personal anxiety coping experiences leverages the unique strengths of parents with BD, enhancing their confidence as facilitators,

worksheet to help children identify problems, brainstorm and evaluate solutions, and review outcomes.	guidance rather than direct imposition of these methods on their child.	while clearly reinforcing the child's autonomy in developing personalised CBT problem-solving strategies.
Module 6: Keep it Going Covers relapse prevention by reviewing current and future goals, reflecting on helpful strategies, and planning regular progress reviews post-treatment.	Introduce a "**Parenting Wins**" journal within OSI's platform or app for parents with BD to record positive caregiving moments weekly, paired with reflective prompts in Module 6 and optional therapist-guided reviews. Provide optional monthly or on-demand **booster sessions** (15–20 minutes) for up to six months after Module 6, reinforcing CBT skills and addressing setbacks specifically for parents with BD	Regular acknowledgement of parenting successes counters negative self-perceptions common during BD mood fluctuations, reinforcing parental competence and confidence, thus improving sustained engagement and effectiveness in managing child anxiety. Booster sessions offer critical support during potential mood relapses in parents with BD, sustaining their confidence and ability to effectively manage their child's anxiety over time.
Option Module: Let's Talk about BD If parents indicate a need for support in communicating	Embed an age-tailored psychoeducation "**BD Storybook**" within the module (digital and printable), featuring simple narratives, illustrations, and child-friendly metaphors (e.g. "Moods are like	Storybooks and visual metaphors concretise abstract BD concepts for children and give parents a structured, confidence-boosting script—reducing misconceptions and normalising mood swings in a developmentally appropriate way.

about their BD to children in Module 1 or 2, introduce this section as the next module	weather"), plus a matching parent guide on how to read and discuss each page.	
	Add a "**Shared Emotion Check-In**" tool in the OSI app that prompts parent and child to rate and name their feelings together (with emoji scales) and invites a brief reflection question ("What helps you when you feel this way?")	Regular two-way emotional check-ins model openness, build trust, and interrupt mutual avoidance—helping children feel heard, reducing anxiety about upsetting the parent, and reinforcing family connection.
	Provide a library of **"Talk Scripts and Role-Play Scenarios"** for common child questions (e.g., "Why do you have sad days?"), with audio/video demonstrations and in-app role-play practice that parents can rehearse and record.	Structured scripts and simulated practice build parents' confidence in handling unpredictable questions, reduce communication uncertainty, and ensure clear, reassuring messaging that addresses self-blame and genetic concerns.
	Introduce an interactive **"Coping Map and Responsibility Cards"** worksheet that parents complete alongside their child to plan supports during future mood shifts (e.g., "When I'm low, Grandma reads you a story" vs "You can help me by drawing me a picture").	Co-creating concrete action plans clarifies boundaries, empowers children with age-appropriate supportive roles, and boosts predictability—reducing child anxiety and safeguarding parental self-efficacy during mood episodes.

	Integrate a **"Conversation Timing Planner"** that links parents' mood self-ratings (1–5) to recommended communication windows (e.g., "If mood ≥4, introduce new topics; if mood ≤2, revisit Coping Map"), with calendar reminders to choose stable moments.	Aligning BD talks with parental mood stability maximises parents' emotional availability, minimises risk of overwhelming the child, and promotes proactive, calm disclosures that foster optimism and engagement in treatment.
Platform-Based Monitoring and Engagement	Implement a brief weekly parental **mood check-in** within the OSI app/platform (e.g., a 1–5 mood scale), using responses to dynamically tailor session tasks to the current emotional capacity of parents with BD.	Regular mood monitoring allows therapists to adapt task complexity based on parents' fluctuating emotional states, ensuring consistent engagement and practical application of CBT techniques for managing child anxiety.
	Offer short **motivational prompts** or gentle push **notifications** (e.g., "You've got this! Try 5 minutes of your Step Plan today!") to support parents with BD.	Motivational reminders help counteract depressive inertia and manic distractibility common in BD, enhancing consistent task engagement.
	Create an always-accessible OSI **resource section offering mood-specific parenting tips** (e.g., "Low mood: Try a brief Worry Time," or "High mood: Channel energy into a creative Step Plan task"), linked directly to helpline and peer-support forums.	Mood-tailored resources provide immediate, practical strategies for parents with BD, enabling consistent and effective OSI engagement across fluctuating emotional states.

	Introduce a **professionally moderated peer-support forum or virtual group** (e.g., asynchronous message boards and monthly synchronous meetings) on OSI's platform for parents with BD, featuring structured prompts to encourage mutual sharing and practical support.	Peer support reduces isolation and provides emotional relief and practical tips, helping parents with BD navigate mood-related parenting challenges, thereby enhancing sustained participation and effectiveness in managing their child’s anxiety.

8.2 Limitations

The studies described in this thesis share several limitations. First, the evidence base is predominantly from White families in high-income Western countries. In Chapter 2, 29 of 35 studies were set in Europe, North America, or Australia—averaging 85.8% White participants—with only six studies from middle-income countries from Latin America and the Middle East (Brazil, Colombia, Mexico, Turkey). Chapter 3 synthesised 13 studies from high-income Western nations and 6 from Brazil, China, Chile, India, and Taiwan. Similarly, in Chapter 7, 11 of 12 intervention trials were Western, except for one from Turkey. My qualitative study (Chapters 4–6) also involved only White parents in the UK. This predominantly White and Western-focused evidence base limits the generalisability of my findings and resulting intervention implications to diverse cultural, socioeconomic, and family contexts. This limitation is particularly significant given that family factors, such as expressed emotion, vary considerably across cultures (Bhugra & McKenzie, 2003), as do explanatory models of BD and help-seeking practices, such as reliance on spiritual rituals or traditional medicine in Taiwan (Lan et al., 2018).

Alongside this limited cultural diversity, another key limitation is the systematic under-representation of fathers with BD across chapters, especially in the secondary-data analyses. Among studies reporting parental gender, mothers consistently dominated the samples: averaging 73.8% in Chapter 2, 87.1% in Chapter 3, and 77.8% in Chapter 7. This pronounced

maternal skew exceeds the 55–65% female BD prevalence reported by epidemiological studies (Dell'Osso et al., 2021), contrasting with the more balanced sampling in my qualitative studies (Chapter 4–6: 64% mothers, 36% fathers). Thus, findings from the literature reviews (Chapter 2, 3, and 7) require cautious interpretation regarding fathers' experiences with BD. To mitigate these demographic biases, I leverage my dual identity as an East Asian clinician and a father in a BD-affected family—bringing both cultural and paternal insights to the analysis—while integrating perspectives from children of parents with BD (Chapter 3) and professionals and charity workers (Chapter 4–6) to capture a broader range of family contexts. Collaborative interpretation with colleagues from varied cultural, parental, and professional backgrounds further offsets single-culture and single-role blind spot, potentially enhancing the applicability of my interpretations of the qualitative data.

Furthermore, compounding these demographic limitations, I chose to treat "parents with BD" as a single, homogeneous group primarily because my aim was to inform broadly applicable early-intervention strategies for childhood anxiety in BD-at-risk families. Although diagnostic subtypes (BD I vs BD II; Lee et al. (2018)), treatment response (lithium-responsive vs non-responsive; Duffy and Grof (2024)), and onset timing (early vs late onset; Hafeman et al. (2016)) might carry different genetic liabilities and influence parenting and child outcomes in different ways, further subdivision would hinder the translational goal of scalable parent-focused programmes, surpass the detail available in secondary data, and complicate qualitative

recruitment, given my primary inclusion criterion (children aged 5–12 with anxiety problems). Thus, balancing specificity, feasibility, and generalisability, I analysed "parents with BD" as one group, acknowledging this simplification as a pragmatic trade-off until richer, subtype-informed data become available.

Table 8.5. Research and Policy/Practice Implications

	Research Implications	Policy/Practice Implications
Chapter 2	**Comparative Longitudinal Study of Panic Disorder in Offspring of Parents with BD**: Recruit children with panic disorder, comparing those with and without a parental BD history using repeated measures to examine risk factors, symptom profiles, severity, illness trajectory, cognitive characteristics, and treatment response, clarifying why high-risk offspring are particularly vulnerable to panic disorder	**Routine Parental Mental-Health Assessment in Child Mental Health Services**: Embed a brief, standardised screen for parental mental health into all child and adolescent mental health intake assessments. Ensure that any positive parental BD screen triggers BD-informed psychoeducation, early identification of child anxiety, resource signposting, and timely referrals.
Chapter 3	**Multiscale Mood Variability and Family Impact Study**: Use mixed-method approaches (momentary mood tracking and qualitative interviews) to compare how episode-to-episode vs day-to-day mood fluctuations in BD differently influence parenting behaviours,	**Integration of Adult and Child Mental Health Services**: Recommend policy frameworks that ensure seamless collaboration between adult BD and child/adolescent mental health teams for coordinated risk monitoring, referral, and family-focused support.

	family environment, and child mental health, clarifying how mood variability timescales uniquely shape parent–child dynamics.	
Chapter 4	**Mixed-Method Longitudinal Study of Role Restoration in Early-Stage BD Parents**: Combine repeated quantitative measures (e.g., parenting stress, self-efficacy, family cohesion) with in-depth qualitative interviews following parents' first BD episode to map how they rebuild caregiving confidence, identify barriers and facilitators, and pinpoint optimal windows for remission-phase interventions.	**Embed Parenting Support and Training in Adult BD Services:** Mandate that adult BD services routinely assess parenting roles and child mental health concerns, and provide formal clinician training on initiating and guiding parenting discussions, delivering practical support, and coordinating referrals to child mental health services and related community resources.
Chapter 5	**Prospective Cohort Study Linking Parental BD Symptom Change to Child Anxiety:** Recruit parents with BD starting treatment and their children; longitudinally assess parental mood severity, polarity, and functioning, alongside child anxiety symptoms and	**Require BD-Sensitive Communication Training:** Institute training for relevant mental health clinicians on delivering non-judgmental, validating discussions about BD, its links to child mental health problems, and strategies to support parental confidence without reinforcing self-blame.

	diagnoses. Evaluate how parental BD symptom improvement predicts child anxiety reduction, informing targeted resource allocation between parental and child-focused interventions.	
Chapter 6	**Parent-Led Communication Intervention Trial:** Develop and pilot a brief parent-led intervention to enhance parental communication about BD with children aged 5–12 years. Using a mixed-method pre–post design, assess children's understanding of parental mood swings, emotional responses (e.g., guilt, worry), and anxiety symptoms, alongside parents' willingness, confidence, perceived challenges, and experiences of these conversations.	**Provide Child-Friendly BD Education Materials:** Commission age-appropriate resources (e.g., illustrated storybooks, simple leaflets, family mood charts) to help 5–12-year-olds understand parental BD and normalise conversations about mood.
Chapter 7	**Pilot and Qualitative Co-Development of OSI for BD-Affected Families:** Using PPI workshops and co-development sessions with	**Incorporate Parent-Focused or Family-Focused Programmes into Standard Care:** Ensure both adult and child services routinely offer evidence-

	parents with BD, adapt OSI's online parent-led CBT for families with pre-adolescent children. Conduct a pilot trial assessing feasibility, acceptability, and initial anxiety outcomes, followed by qualitative interviews exploring user experiences, barriers, and facilitators to inform further refinement.	based parent-focused or family-focused programmes (e.g., IBPI, FFT-HR) as part of their care pathways, providing scalable, developmentally tailored support for BD-affected families

8.3 Strengths and Implications

This thesis addresses a critical gap by investigating childhood anxiety in children (aged 5–12 years) of parents with BD—a significant yet understudied challenge linked to poor outcomes. Crucially, no tailored CBT-based interventions currently exist for this specific pre-adolescent group. Using rigorous mixed methods—including systematic reviews, meta-analyses, and qualitative inquiries—this research triangulates diverse evidence on how parental BD impacts child anxiety. Applying a robust translational framework, the research systematically builds the rationale for targeted interventions across chapters: it progresses from a data-driven justification via meta-analysis (Chapter 2), through a qualitative synthesis of key family environmental factors (Chapter 3) and uses in-depth interviews to clarify treatment implications (Chapters 4–6), culminating in proposed mechanisms for parent-focused

intervention adaptations (Chapter 7). A key contribution arising from this framework is the introduction of a dual-impact model, conceptualising parental BD as presenting both risk and resilience factors. This model lays the groundwork for empowerment-based approaches. Although the proposed parent-led CBT adaptation (Chapter 8) awaits empirical testing, this work establishes a clear foundation for future trials evaluating its effectiveness, acceptability, and long-term impact in families affected by BD.

Table 8.5 outlines the key research, policy, and practice implications from my thesis findings. Building upon this comprehensive framework, the thesis identifies multiple pathways through which parental BD may affect child anxiety, underscoring the need for further observational research to delineate each pathway's specific contribution. Given the notably high and early onset risk for panic disorder in BD offspring, a comparative longitudinal study is recommended. This study should examine children with panic disorder, comparing those with and without a parental BD history, across factors such as risk profiles, symptom severity, illness trajectory, cognitive characteristics, and treatment response to illuminate mechanisms of intergenerational transmission between BD and anxiety. Additionally, qualitative insights suggest parental BD influences caregiving across multiple timescales—from momentary mood lability to broader episodic fluctuations. This calls for multiscale studies combining ecological momentary assessments (EMA) with qualitative interviews to clarify how different mood variability patterns distinctly impact parenting, family dynamics, and child mental health.

Furthermore, understanding the restoration of caregiving capacity post-BD episodes requires longitudinal mixed-method studies tracking parents from initial BD onset. These studies should integrate quantitative measures (e.g., parenting stress, self-efficacy, family cohesion) with qualitative exploration to identify critical facilitators and barriers to role recovery, their links to child outcomes, and optimal timing for interventions during remission.

Complementing observational approaches, this thesis emphasises the need for intervention-focused research to translate the qualitative findings into practical support strategies. Initially, co-development of a tailored, parent-led CBT programme is proposed, adapting the existing OSI online platform specifically for families with parental BD. A subsequent pilot trial combined with qualitative interviews will evaluate feasibility, acceptability, and preliminary anxiety outcomes, capturing user experiences alongside barriers and facilitators. Concurrently, leveraging the pilot's waitlist control group, a prospective cohort study should longitudinally assess parents' mood symptoms, functioning, and polarity alongside children's anxiety diagnoses and symptoms. This will measure the extent to which improvements in parents' self-care correspond with changes in their children's anxiety symptoms, guiding resource allocation between parent- and child-focused intervention components. Additionally, piloting a concise, parent-led communication intervention module aimed at improving age-appropriate, empowering discussions about BD is recommended. Its effectiveness in enhancing children's understanding, emotional responses, and anxiety

symptoms—as well as parents' confidence, communication willingness, and perceived challenges—will inform further intervention refinements. Together, these studies will establish the efficacy of the adapted version of OSI and clarify whether embedding the communication module or signposting parents to self-care resources yields additional gains in both clinical outcomes and family well-being.

Translating these research insights into practical service improvements, the thesis highlights critical policy implications, notably the necessity of bridging adult BD services and child mental health care through integrated, bidirectional referral frameworks. Adult BD clinicians must routinely identify parental status, assess parenting stress and child mental health issues, and proactively refer families to appropriate child-focused services or community resources. Likewise, child mental health providers should consistently assess for parental BD history, exploring its impact on child mental health, making referrals to adult BD services when necessary, and monitoring high-risk offspring for early intervention. Equally crucial is embedding family-focused care within routine service delivery to foster stronger parent–child relationships and a supportive home environment. Training parents in age-appropriate, constructive communication about BD, equipping clinicians to discuss child mental health empathetically while empowering parents, and integrating evidence-based, family-oriented interventions (e.g., IBPI, FFT-HR) into standard care pathways are essential steps.

Implementing these policies will ensure comprehensive, family-centred support, promoting resilience and well-being in families affected by parental BD.

8.4 Conclusion

This thesis carefully constructs an intervention framework, systematically moving from identifying treatment targets to specifying delivery methods and content, informed by rigorous research and the lived experiences of families affected by BD. Advocates of parent-led interventions hold that parents are inherently the experts on their own children; my findings extend this idea, reframing the lived experience of BD as a valuable resource. By empowering parents to draw upon their experiences, their expertise can be uniquely strengthened to support their child's psychological distress, particularly anxiety—aligning effectively with flexible, parent-led CBT approaches like OSI. As pioneering research, this work acknowledges uncertainties regarding intervention efficacy specific to high-risk families and its potential long-term impact. Nonetheless, this thesis provides critical insights into the period preceding BD onset, underscoring that each research step meaningfully advances our understanding. Continued progress will depend on embracing these complexities, always guided by the voices and experiences of the families we aim to support.

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11. Supplementary Materials

Supplement 2.1. Research Question Based on PICOST

Population (P)	Offspring of parents with mood disorders
Intervention or exposure (I)	Parental mood disorders diagnosed using clinical diagnostic interviews based on DSM or ICD
Comparators (C)	Offspring of parents without the specified mood disorders (control offspring)
Outcomes (O)	**Primary outcome**: Risk ratio of anxiety disorders in offspring of parents with mood disorders compared with control offspring **Secondary outcomes**: Factors that influence the magnitude of the risk ratio in offspring of parents with mood disorders compared with control offspring
Study designs (S)	(1) Published in a peer-reviewed journal (2) Original research papers conducted in humans (3) Exclude studies containing only qualitative data, editorials, opinions, narrative or systematic reviews, conference summaries, meta-analyses, clinical guidelines, animal studies, case reports, and case series
Timeframe (T)	1994–current

Supplement 2.2. The Full Version of the Search Term

Concepts	Keywords
(A) Offspring	pediatric* OR paediatric* OR offspring OR toddler OR child* OR teen* OR youth* OR young OR preschool* OR school-age* OR pre-adolescen* OR adolescen* OR juvenil*
(B) Anxiety disorders	anxio* or anxiet* or phobi* or panic or agoraphobi* or GAD or selective mut* or school refusal
(C) Parents	parent* or mother* or matern* or father* or patern* or proband* or adult* or famil*
(D) Mood disorders	BD or BD1 or BD2 or BDi or BDii or BDNOS or MDD or bi?polar or affective or mood or depress* or mania* or manic* or hypomani* or mix* episode* or dysthymi* or cyclothymi* or pre?menstrual dysphoric
(E) Animal	(animal or animals or canine* or dog or dogs or feline or hamster* or lamb or lambs or mice or monkey or monkeys or mouse or murine or pig or pigs or piglet* or porcine or primate* or rabbit* or rat or rodent* or sheep* or veterinar*) not (human* or patient*)
(A) AND (B) AND (C) AND (D) NOT (E)	

Supplement 2.3. Reasons of Exclusion in Full-Text Search

First author (Year)	Type of Exclusion	Reason for Exclusion
Apter-Levy (2013)	Eligibility	No numbers/percentages of offspring anxiety disorders
Bella (2011)	Extraction	Overlapping sample with Birmaher 2010
Biederman (2001)	Eligibility	No numbers/percentages of offspring anxiety disorders
Biederman (2006)	Eligibility	No numbers/percentages of offspring anxiety disorders
Birmaher (2009)	Extraction	Overlapping sample with Birmaher 2010
Birmaher (2013)	Extraction	Overlapping sample with Birmaher 2010
Birmaher (2021)	Extraction	Overlapping sample with Birmaher 2010
Brennan (2002)	Eligibility	No numbers/percentages of offspring anxiety disorders
Cooper (2006)	Eligibility	Wrong exposure (offspring anxiety disorders)
Dierker (1999)	Eligibility	No numbers/percentages of offspring anxiety disorders
Ellenbogen (2013)	Extraction	Overlapping sample with Nijjar 2014
Ellersgaard (2018)	Eligibility	Did not fully use diagnostic interview (register)
Finsaas & Klein (2022)	Eligibility	No comparison group
Frankland (2017)	Eligibility	Proband group included parents and siblings
Galbally (2021)	Extraction	Overlapping sample with Galbally 2022
Gershon (2011)	Eligibility	No numbers/percentages of offspring anxiety disorders
Glasheen (2013)	Eligibility	Did not fully use diagnostic interview (parental symptom scales)
Goetz (2019)	Extraction	Overlapping sample with Goetz 2017
Goldstein (2010)	Eligibility	No comparison group

Goldstein (2017)	Eligibility	No numbers/percentages of offspring anxiety disorders
Gregersen (2022)	Eligibility	Did not fully use diagnostic interview (register)
Hafeman (2022)	Eligibility	No comparison group
Halligan (2007)	Extraction	Overlapping sample with Murray 2011
Henin (2005)	Eligibility	No numbers/percentages of offspring anxiety disorders
Hillegers (2005)	Eligibility	No comparison group
Hirshfeld-Becker (2012)	Eligibility	No numbers/percentages of offspring anxiety disorders
Hughes (2009)	Eligibility	Wrong exposure (offspring anxiety disorders)
Jeganathan (2018)	Eligibility	Proband group included parents and siblings
Johnson (2006)	Eligibility	Did not fully use diagnostic interview (family history tool)
Kim (2015)	Eligibility	Only offspring with ADHD were recruited
Kung (2019) (Kung et al., 2019)	Eligibility	Did not fully use diagnostic interview (family history tool)
Lieb (2000)	Eligibility	Wrong exposure (offspring anxiety disorders)
Lieb (2002)	Eligibility	Did not fully use diagnostic interview (family history tool)
Maoz (2014)	Extraction	Overlapping sample with Birmaher 2010
Mars (2012)	Eligibility	No comparison group (all parents have unipolar depression)
Mufson (2002)	Eligibility	No numbers/percentages of offspring anxiety disorders
Nurnberger (2011)	Eligibility	Proband group included parents and siblings
Ostiguy (2011)	Extraction	Overlapping sample with Nijjar 2014
Park (2015)	Eligibility	No numbers/percentages of offspring anxiety disorders
Peisah (2004) (Peisah et al., 2004)	Eligibility	Wrong exposure (parents with depressive symptoms)
Perich (2015)	Eligibility	Proband group included parents and siblings

Preisig (2016)	Extraction	Overlapping sample with Rudaz 2020
Sanchez-Gistau (2015)	Extraction	Overlapping sample with Serna 2021
Sebela (2019)	Extraction	Overlapping sample with Goetz 2017
Swartz (2005)	Eligibility	No numbers/percentages of offspring anxiety disorders
Vandeleur (2012)	Extraction	Overlapping sample with Rudaz 2020
Warner (1995)	Eligibility	Did not fully use diagnostic interview (family history tool)
Weissman (1997)	Extraction	Overlapping sample with Nomura 2001
Weissman (2006)	Extraction	Overlapping sample with Weissman 2021
Weissman (2014)	Eligibility	No comparison group
Weissman (2016)	Extraction	Overlapping sample with Bushnell 2020
Wickramaratne (1998)	Extraction	Overlapping sample with Nomura 2001

Supplement 2.4. The Data Collected via Email Request from Original Author

First author (Year)	Reported records	Requested records	Response
Apter-Levy (2013)	Investigated anxiety disorders but did not report number/percentages for targeted offspring	Number/percentage of offspring anxiety disorders	No response
Biederman (2001)	Investigated anxiety disorders but did not report number/percentages for targeted offspring	Number/percentage of offspring anxiety disorders	No response
Biederman (2006)	Investigated anxiety disorders but did not report number/percentages for targeted offspring	Number/percentage of offspring anxiety disorders	No response
Dierker (1999)	Investigated anxiety disorders but did not report number/percentages for targeted offspring	Number/percentage of offspring anxiety disorders	No response
Duffy (2019)	Investigated anxiety disorders but did not report number/percentages for targeted offspring	Number/percentage of offspring anxiety disorders	Responded

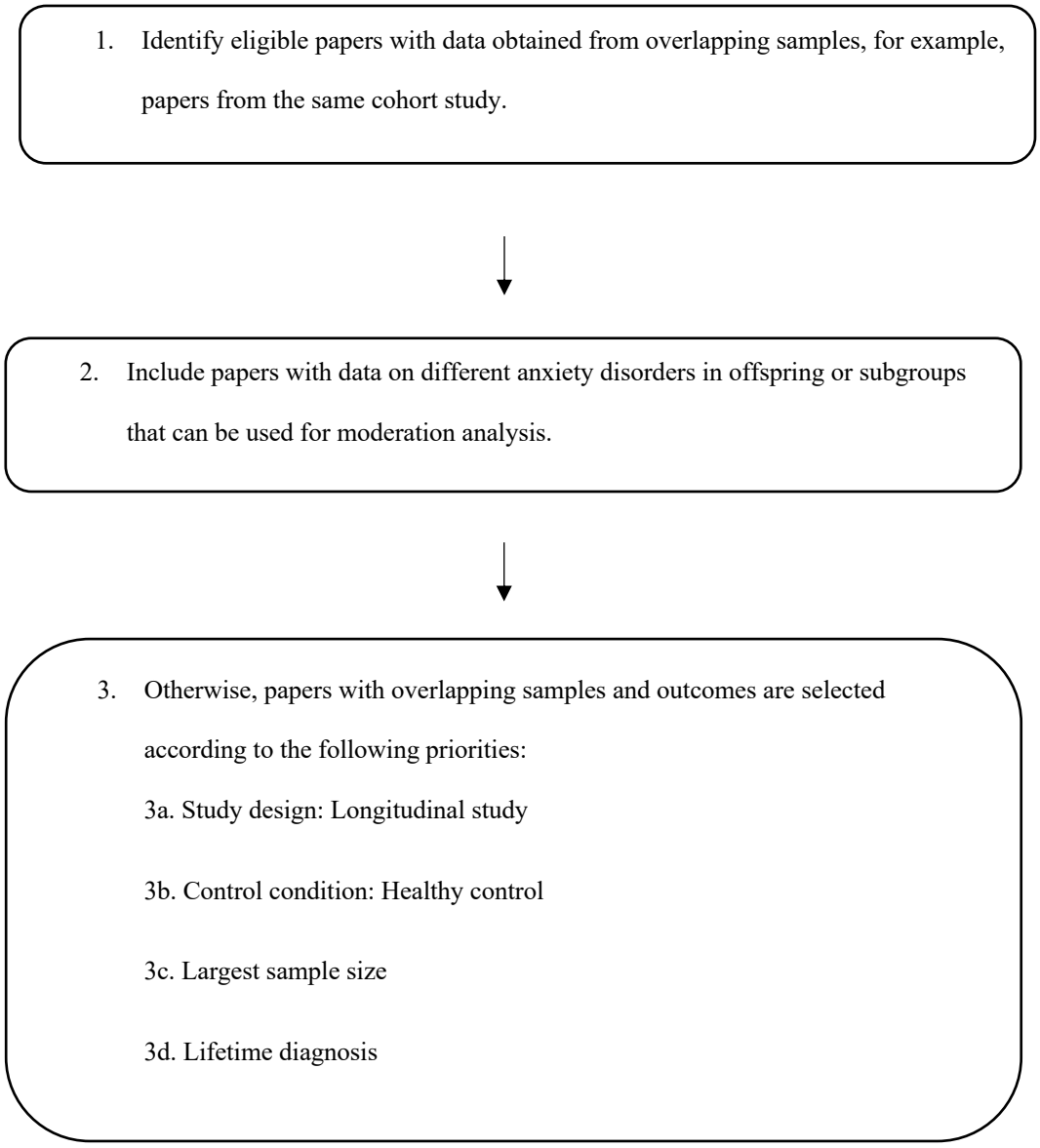
Frankland (2017)	Demographics and outcomes of first-degree relatives of people with bipolar disorder	Demographics and outcomes of offspring of parents with bipolar disorder	No response
Goldstein (2017)	Investigated anxiety disorders but did not report number/percentages for targeted offspring	Number/percentage of offspring anxiety disorders	No response
Henin (2005)	Investigated anxiety disorders but did not report number/percentages for targeted offspring	Number/percentage of offspring anxiety disorders	No response
Hirshfeld-Becker (2012)	Investigated anxiety disorders but did not report number/percentages for targeted offspring	Number/percentage of offspring anxiety disorders	No response
Jeganathan (2018)	Demographics and outcomes of first-degree relatives of people with bipolar disorder	Demographics and outcomes of offspring of parents with bipolar disorder	No response
Mufson (2002)	Investigated anxiety disorders but did not report number/percentages for targeted offspring	Number/percentage of offspring anxiety disorders	No response
Nurnberger (2011)	Demographics and outcomes of first-degree relatives of people with bipolar disorder	Demographics and outcomes of offspring of parents with bipolar disorder	No response

Park (2015)	Investigated anxiety disorders but did not report number/percentages for targeted offspring	Number/percentage of offspring anxiety disorders	No response
Perich (2015)	Demographics and outcomes of first-degree relatives of people with bipolar disorder	Demographics and outcomes of offspring of parents with bipolar disorder	No response
Rudaz (2020)	Investigated anxiety disorders but did not report number/percentages for targeted offspring	Number/percentage of offspring anxiety disorders	Responded
Swartz (2005)	Investigated anxiety disorders but did not report number/percentages for targeted offspring	Number/percentage of offspring anxiety disorders	No response
Tseng (2015)	Demographics and outcomes of first-degree relatives of people with bipolar disorder	Demographics and outcomes of offspring of parents with bipolar disorder	Responded

Supplement 2.5. The Extracted Information from the Included Studies

Categories	Variables
Study identifier	Codes, first authors, and publication years
Methodology	Study designs, region of study origin, recruitment settings, diagnostic tools used in parents and offspring, current or lifetime diagnoses in offspring, scores, and classifications from quality assessment
Parent characteristics	Parental diagnosis (bipolar disorder or unipolar depression), types of control groups (Parents without psychiatric diagnoses, parents without a mood disorder, or parents without BD), sex (parents or mothers, and percentage of female parents), comorbidities (anxiety disorders or substance use disorders), and family profiles (marriage rates, percentage of intact families and socio-economic status)
Offspring characteristics	Sex (percentage of female offspring) and age (age range and mean age) of high-risk group and controls
Outcome measures	Total number and number of anxiety disorders in risk and control groups; adjusted risk ratio, odds ratio, or hazard ratio; offspring functioning, and age of onset for anxiety disorders

Supplement 2.6. Principle for Selecting Papers with Overlapping Samples and Outcomes



Supplement 2.7. Quality Assessment of the Included Papers

First author (Year)	1	2	3	4	5	6	7	9	10	11	12	13	14	Rating
Akdemir (2008)	+	+	+	+	-	-	-	+	NA	+	-	NA	+	Fair
Axelson (2015)	+	+	+	+	-	+	+	+	+	+	+	-	+	Good
Beidel (1997)	+	+	NR	+	-	-	-	+	NA	+	+	NA	+	Fair
Biel (2008)	+	+	NR	+	-	-	-	+	NA	+	+	NA	+	Fair
Birmaher (2010)	+	+	+	+	-	-	-	+	-	+	+	NR	+	Fair
Bushnell (2020)	+	+	+	+	-	+	+	+	+	+	+	+	+	Good
Cullen (2014)	+	+	+	+	-	+	+	+	+	+	+	+	+	Good
Duffy (2019)	+	+	NR	+	-	+	+	+	+	+	+	NR	+	Good
Eraso-Osorio (2021)	+	+	NR	+	+	+	+	+	-	+	+	-	+	Fair
Erkan (2015)	+	+	NR	+	-	-	-	+	NA	+	NR	NA	+	Fair
Erlenmeyer (1997)	+	+	NR	+	+	+	+	+	-	+	NR	NR	+	Fair
Feder (2009)	+	+	NR	+	-	-	-	+	NA	+	+	NA	+	Fair
Galbally (2020)	+	+	NR	+	-	+	+	+	+	+	NR	NR	+	Fair
Galbally (2022)	+	+	NR	+	-	+	+	+	+	+	NR	NR	+	Fair
Gallerani (2010)	+	+	+	+	-	+	+	+	-	+	+	+	+	Good
Garcia-Amador (2013)	+	+	NR	+	-	-	-	+	NA	+	-	NA	+	Fair
Goetz (2017)	+	+	NR	+	+	-	-	+	NA	+	-	NA	+	Fair
Hirshfeld-Becker (2006)	+	+	NR	+	-	-	-	+	-	+	+	+	+	Fair
Micco (2009)	+	+	NR	+	-	+	+	+	-	+	+	-	+	Fair
Murray (2011)	+	+	+	+	-	+	+	+	-	+	+	NR	+	Fair
Nimarko (2020)	+	+	NR	+	-	+	+	+	-	+	+	NR	+	Fair

Nijjar (2014)	+	+	+	+	-	+	+	+	-	+	+	NR	+	Fair
Nomura (2001)	+	+	+	+	-	+	+	+	+	+	+	+	+	Good
Palacio-Ortiz (2017)	+	+	NR	+	+	-	-	+	-	+	+	-	+	Fair
Pan (2017)	+	+	+	+	-	+	+	+	+	+	+	-	+	Good
Pavlova (2022)	+	+	+	+	-	-	-	+	NA	+	+	NA	NR	Fair
Petresco (2009)	+	+	+	+	-	-	-	+	NA	+	+	NA	+	Fair
Pine (2005)	+	+	NR	+	-	-	-	+	NA	+	+	NA	+	Fair
Rudaz (2020)	+	+	+	+	+	+	+	+	+	+	+	+	+	Good
Serna (2021)	+	+	+	+	-	+	+	+	+	+	+	+	+	Good
Singh (2007)	+	+	NR	+	-	-	-	+	NA	+	+	NA	+	Fair
Shalev (2019)	+	+	+	+	-	+	+	+	+	+	+	-	+	Good
Tseng (2015)	+	+	NR	+	-	-	-	+	NA	+	-	NA	+	Fair
Weissman (2021)	+	+	+	+	-	+	+	+	+	+	+	+	+	Good
Zavaleta-Ramirez (2014)	+	+	NR	+	-	-	-	+	NA	+	+	NA	-	Fair

This tool used in Chapter 2 had fourteen questions (as follows). Each question was rated as yes (+), no (-), not applicable (**NA**) or not reported (**NR**) (National Heart Lung and Blood Institute, 2013) The 8th question was not assessed, as it was irrelevant to the study focus. The studies were then judged to be of "good" (the least risk of bias), "fair" (susceptible to some bias), or "poor" (significant risk of bias) as per the tool's instructions. I developed criteria to rate study quality as good/fair/poor based on the likely impact on the causal relationship or correlation between the exposure and outcome.

1. Was the research question or objective in this paper clearly stated?
2. Was the study population clearly specified and defined?
3. Was the participation rate of eligible persons at least 50%?
4. Were all the subjects selected or recruited from the same or similar population (including the same time period)? Were inclusion and exclusion criteria for being in the study prespecified and applied uniformly to all participants?

5. Was a sample size justification, power description, or variance and effect estimates provided?
6. For the analyses in this paper, were the exposure(s) of interest measured prior to the outcome(s) being measured?
7. Was the timeframe sufficient so that one could reasonably expect to see an association between exposure and outcome if it existed?
8. For exposures that can vary in amount or level, did the study examine different levels of the exposure as related to the outcome?
9. Were the exposure measures clearly defined, valid, reliable, and implemented consistently across all study participants?
10. Was the exposure(s) assessed more than once over time?
11. Were the outcome measures clearly defined, valid, reliable, and implemented consistently across all study participants?
12. Were the outcome assessors blinded to the exposure status of participants?
13. Was loss to follow-up after baseline 20% or less?
14. Were key potential confounding variables measured and adjusted statistically for their impact on the relationship between exposure(s) and outcome(s)?

Criterion developed by the authors to rate study quality

Rating	**Meaning**	**Criterion developed by the authors** (The items are listed below)
Good	The least risk of bias	"Yes" responses to questions 3, 6, 7, 12 and 14; If a "no" response to question 13, a description and implication of the loss to follow-up population is required
Fair	Susceptible to some bias	
Poor	Significant risk of bias	"Fatal flaws" indicated by a "no" response to questions 1, 2, 4, 9, or 11

Supplement 2.8. The Number of Anxiety Disorders among Offspring of Parents with Mood Disorders

Study	Findings
Hirshfeld-Becker et al. (2006)	• The rates of multiple anxiety disorders were significantly higher among offspring of parents with bipolar disorder (26.5%) compared with offspring of psychiatric control parents (10.6%) and healthy control parents (0%), when parental panic disorder was covaried. • However, when excluding six children who already had bipolar disorder, the difference between the offspring of parents with bipolar disorder and the offspring of psychiatric control parents lost significance.
Bushnell et al. (2020)	• The rates of multiple anxiety disorders were higher among offspring of parents with major depression (22.6%) than among offspring of healthy control parents (9.4%). • Among children with an "early-onset persistent anxiety" trajectory, 65% had multiple anxiety disorders, compared with 36% of children with a "non-persistent anxiety" trajectory.

Supplement 2.9. Lifetime Rates of Anxiety Disorders in the Offspring of Parents with Bipolar Disorder by Offspring Age

Parent Dx	Bipolar Disorder									Unipolar Depression					
	Children[1] (Lifetime)			Children & Adolescents[1] (Lifetime)			Children & Adolescents[1] (Current)			Children & Adolescents[1] (Lifetime)			Children & Adolescents[1] (Current)		
Offspring	K (n)[2,3]	Risk	Cont	K (n)	Risk	Cont	K (n)	Risk	Cont	K (n)	Risk	Cont	K (n)	Risk	Cont
Any AD	3 (390)	20.3%	4.6%	9 (1,372)	38.1%	16.6%	6 (645)	29.8%	11.1%	4 (666)	34.8%	20.8%	4 (477)	39.1%	28.5%
SAD	3 (415)	13.4%	3.4%	6 (766)	12.9%	5.3%	3 (235)	19.8%	10.5%	4 (490)	20.3%	9.5%	3 (285)	10.1%	0%
GAD	3 (415)	5.6%	0.8%	6 (766)	7.7%	3.6%	4 (278)	8.6%	5.4%	3 (432)	14.6%	7.0%	5(546)	8.7%	5.8%
SOC	3 (415)	3.9%	1.7%	6 (766)	6.0%	3.8%	4 (278)	11.4%	7.2%	4 (490)	10.3%	6.3%	4 (488)	17.4%	11.2%
SP	3 (415)	7.3%	2.1%	6 (766)	12.6%	6.7%	3 (235)	15.3%	11.3%	4 (669)	23.4%	13.5%	3 (424)	22.3%	20.8%
PD	2 (192)	5.2%	0%	4 (481)	5.1%	0.4%	3 (192)	6.25%	0%	1 (93)	1.9%	0%	-	-	-
AGO							1 (86)	2.3%	2.4%	1 (93)	3.8%	2.4%	1 (203)	4.9%	3.7%

[1] Children: 2-12 years; Children and Adolescents: 2-19 years

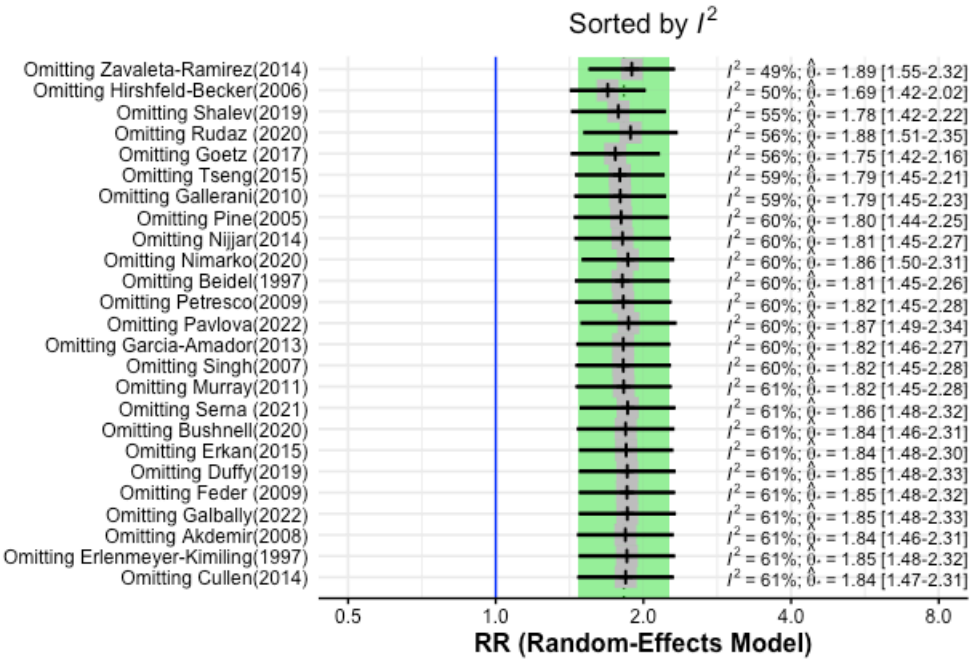
[2] Studies with an age range under 6 years: Both lifetime and current anxiety disorder rates are included

[3] Studies with an age range of 6 years and above: Only lifetime anxiety disorder rates are included.

Note: **AD** = anxiety disorder; **AGO** = agoraphobia**; Cont** = control**; Dx** = diagnosis; **GAD** = generalised anxiety disorder**; k** = number of studies**; n** = number of participants**;**

PD = panic disorder**; SAD** = separation anxiety disorder; **SOC** = social phobia; **SP** = specific phobia;

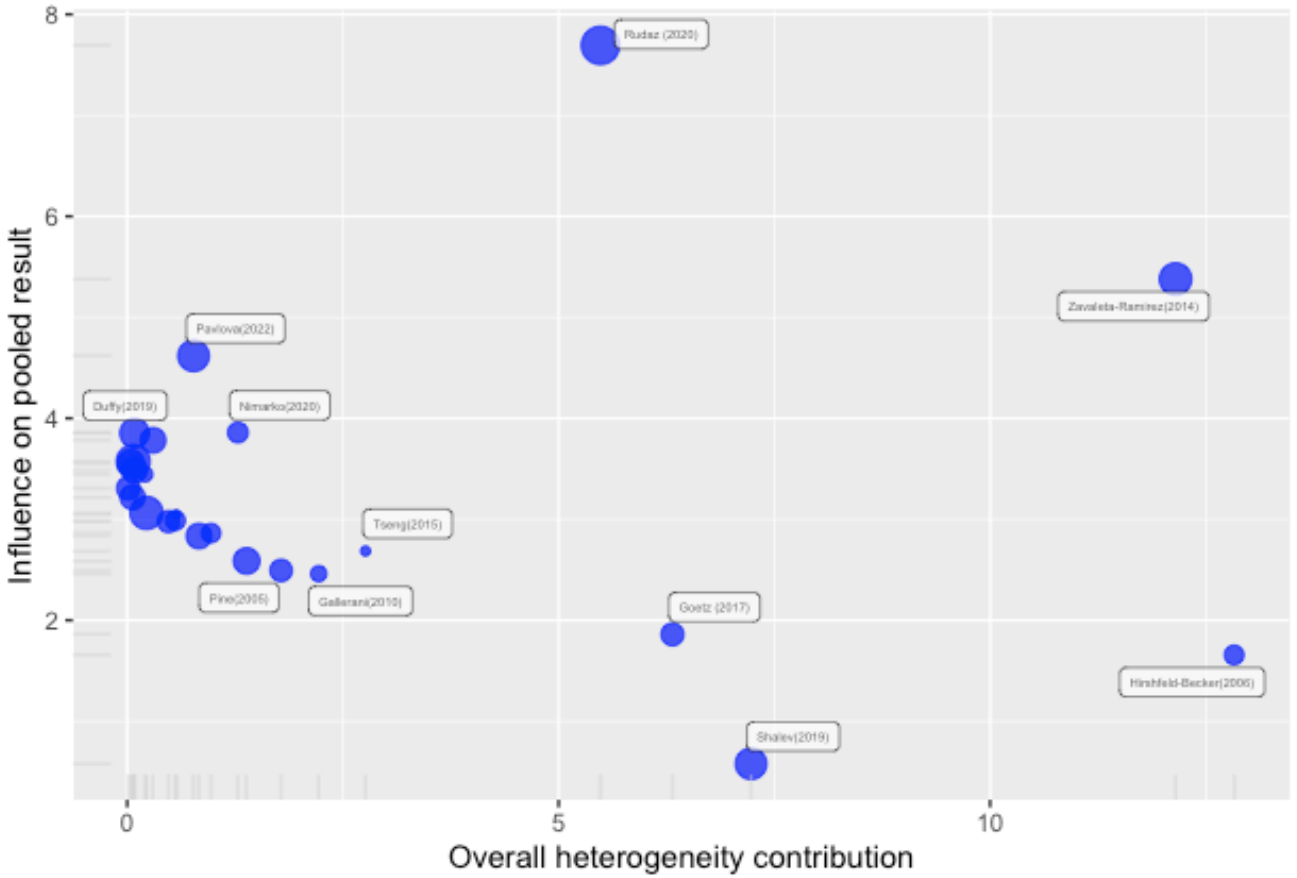
Supplement 2.10. The Influential Analysis of Any Anxiety Disorders in Offspring of Parents with Mood Disorders



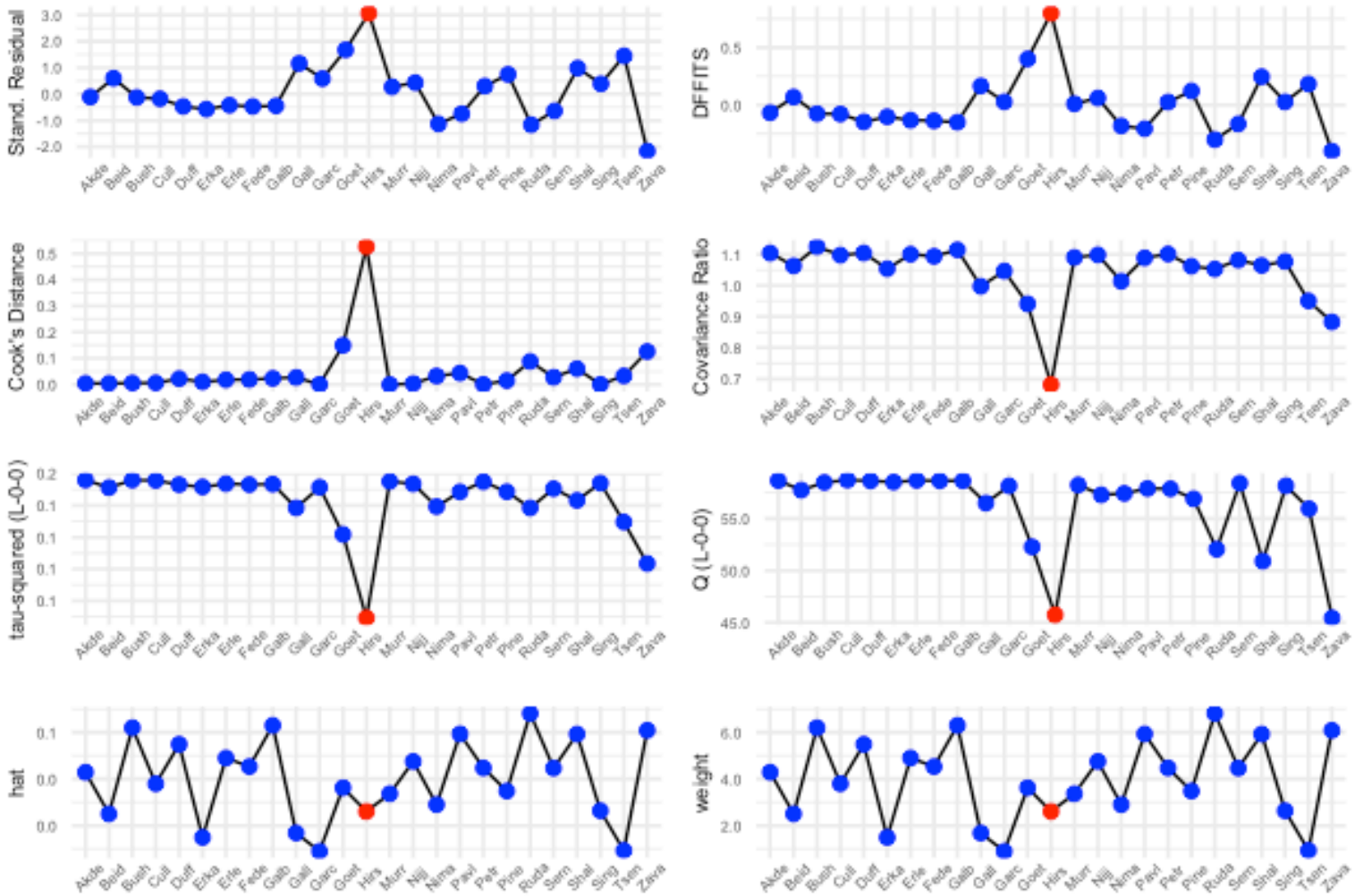
Supplement 2.10A. Leave-one-out study sorted by influences on I^2



Supplement 2.10B. Leave-one-out study sorted by influences on effect size



Supplement 2.10C. Baujat plot: detect studies which overly contribute to the heterogeneity in the meta-

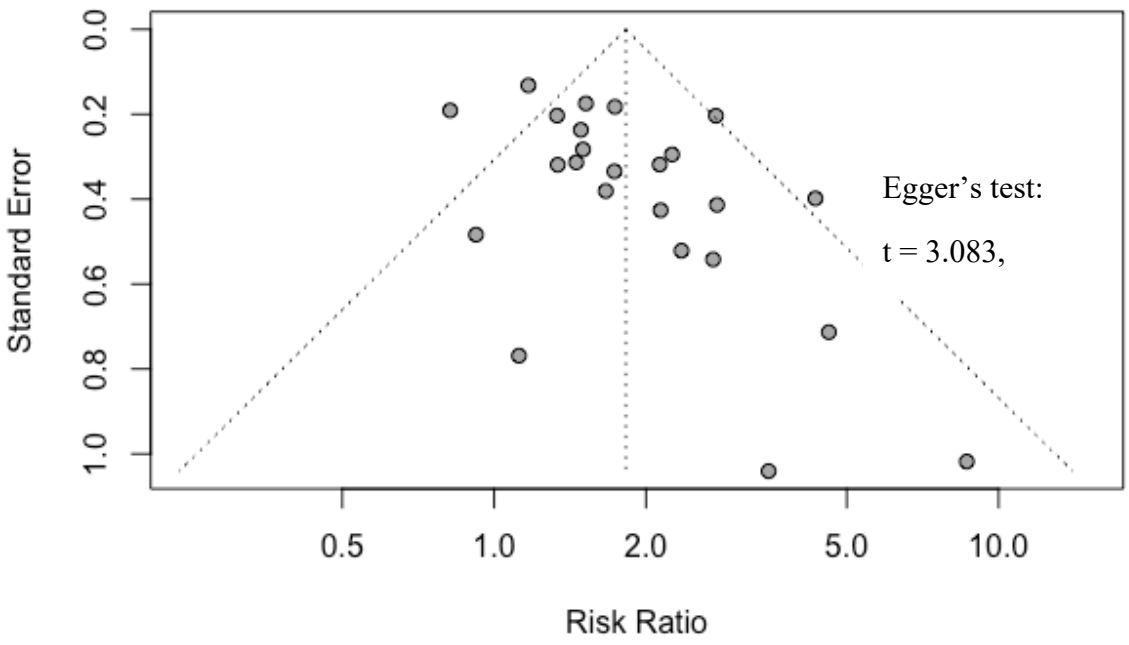


Supplement 2.10D. Influence diagnostics: Externally standardized residuals, DFFITS value, Cook's distance, Covariance ratio, Leave-one-out tau square and Cochran's Q values, Hat value and study weight

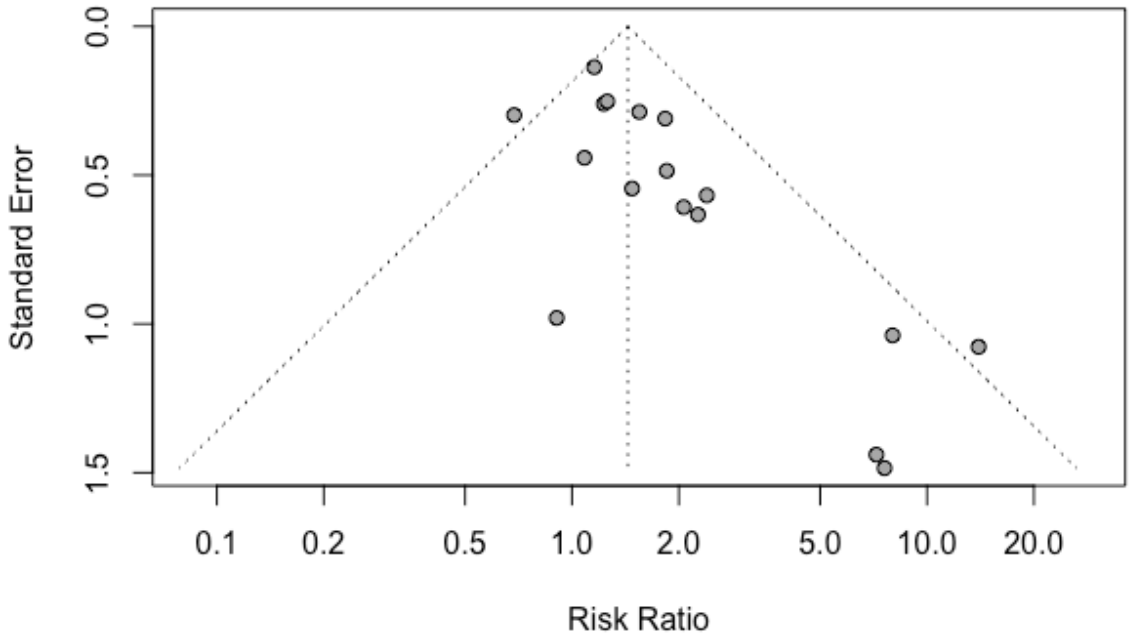
Supplement 2.11. Potential Reasons for Influential Cases in Any Anxiety Disorder among Offspring of Parents with Mood Disorders

	Influence on effect size (RR)	Influence on between-study heterogeneity (I^2)	Possible reasons
Hirshfeld-Becker et al. (2006)	Extremely large effect	Extremely large effect	• Risk group: parents with bipolar disorder • Comparison group: healthy control parents • Offspring of both groups had a mean age of 7.1 years (range 5–10 years) • **It is possible that the younger age of the offspring may have influenced the effect sizes and the level of heterogeneity**
Zavaleta-Ramirez et al. (2014)	Extremely small effect	Extremely large effect	• Risk group: parents with bipolar disorder. • Comparison group: parents without bipolar disorder (who may have comorbid anxiety disorders or unipolar depression, although no information on comorbidity rates was provided). • The proportion of females in the comparison group was significantly lower than in the at-risk group (16% vs 39%, p = .046). • **It is possible that the higher rates of parental psychiatric comorbidity and the higher proportion of male offspring in the comparison group may have influenced the effect sizes and the level of heterogeneity**

Supplement 2.12. Funnel Plots of the Risk of Publication Bias for the Risk of Any Anxiety Disorder (2.12A) and Specific Phobia (2.12B) in the Offspring of Parents with Mood Disorders



Supplement 2.12A. Funnel plots and Egger's test for any anxiety disorder



Supplement 2.12B. Funnel plots and Egger's test for specific phobia

Supplement 2.13. Adjusted Risk in the Offspring of Parents with Mood Disorders Reported in the Included Studies

First author (Year)	Type	Anxiety disorder	Variables controlled for
Axelson et al. (2015)	Adjusted HR	Any AD	Offspring age, gender, ethnicity, proband sex, age of onset, bipolar subtype, socioeconomic status, year at intake, and years of follow-up
Duffy et al. (2019)	Adjusted HR	Any AD	Offspring gender and sibling correlation
Eraso-Osorio et al. (2021)	Adjusted HR	SAD, GAD, SOC, SP	Offspring age, sex, SES, schooling, housing area, and traumatic events
Feder et al. (2009)	Adjusted OR	Any AD, SOC, SP	Offspring age and gender and more children from one family
Goetz et al. (2017)	Adjusted OR	Any AD	Living with both biological parents, non-BD disorders in parents, education of parents, trauma in the child's history and multiple children from one family
Petresco et al. (2009)	Adjusted RR	Any AD	Offspring age, gender, ethnicity, IQ, schooling, marital status, and Global Assessment of Functioning
Weissman et al. (2021)	Adjusted RR	Any AD, GAD, PD, phobia	Offspring age and gender and correlations between family members

Note: **AD** = anxiety disorder; **GAD** = generalised anxiety disorder; **HR** = hazard ratio; **OR** = odds ratio; **PD** = panic disorder; **RR** = risk ratio; **SES** = socio-economic status; **SOC** = social phobia; **SP** = specific phobia.

Supplement 2.14. Crude and Adjusted RR for Any Anxiety Disorder in the Included Studies

Studies	Sample Size (N)	Risk	95%-CI	I^2
A = Pooling studies without adjusted OR/RR (k = 20)	3,725	Crude RR = 1.80	1.37–2.35	62.5%
B = Petresco (2009)	96	Adjusted RR = 2.83	1.39–5.78	
C = Weissman (2021)	276	Adjusted RR = 2.35	1.49–3.77	
D = Feder (2009)	58	Adjusted OR = 1.90	0.60–6.70	
E = Goetz (2017)	86	Adjusted OR = 9.69	2.75–34.31	
F = B + C + D + E		Adjusted RR = 2.48	1.74–3.54	0%
G = A + B + C + D + E (k = 24)		(Crude + Adjusted) [a] RR = 1.87	1.43–1.80	61%
Corrected G (k = 20) [b]		(Crude + Adjusted) [a] RR = 1.78	1.52–2.07	1.9%
H = Axelson (2015)	391	Adjusted HR = 1.67	1.45–4.97	
I = Duffy (2019)	366	Adjusted HR = 1.52	0.90–2.58	
J = H + I		Adjusted HR = 1.58	1.06–2.36	0%

Note: C = events in the control group; CI = confidence interval; **GAD =** generalised anxiety disorder; **HR =** hazard ratio**; k =** number of studies**; Ncontrol =** sample size in the control group; **OR =** odds ratio; **PD =** panic disorder; **RR =** risk ratio; **SP =** specific phobia; **SOC =** social phobia.

a. The formula that converts OR to RR (Zhang and Yu, 1998): $RR = OR / [(1-P_0) + (P_0 * OR)]$

b. Correction by removing outlier/influential cases.

Supplement 2.15. Sensitivity Analysis by Pooling only Longitudinal Follow-Up Data

Parent Dx		**Mood disorders**				**Bipolar disorder**				**Unipolar depression**			
Offspring	**k (n)**	**RR**	**95%CI**	**I^2 (%)**	**Egger (p)**	**k (n)**	**RR**	**95% CI**	**I^2 (%)**	**k (n)**	**RR**	**95% CI**	**I^2 (%)**
Any AD	12 (3,000)	**1.64**[a]	1.34-2.01	41.5	.254	7 (1,663)	**1.70**[a]	1.21-2.38	**51.2**[b]	7 (1,134)	**1.51**[a]	1.17-1.96	5.5
Any AF (Inf)						6[c] (1,007)	**1.43**[a]	1.08-1.90	0				
SAD	8 (2,213)	**1.72**[a]	1.23-2.39	16.9		5 (1,592)	**1.71**[a]	1.10-2.66	7.0	4 (622)	1.84	0.78-4.36	38.5
GAD	12 (2,868)	**1.84**[a]	1.23-2.75	43.2	.599	7 (1,783)	**1.78**[a]	1.06-2.98	34.8	6 (883)	1.77	0.63-4.97	**50.9**[b]
GAD (Inf)										5 (825) [d]	**2.35**[a]	1.15-4.80	9.6
SOC	11 (2,665)	**1.45**[a]	1.18-1.79	0	.069	7 (1,783)	**1.57**[a]	1.20-2.05	0	5 (825)	1.30	0.85-1.97	0
SP	8 (1,861)	**1.28**[a]	1.06-1.56	0		5 (1101)	1.21	0.89-1.65	0	4 (761)	1.35	0.95-1.94	0
PD	10 (2,602)	**2.80**[a]	2.00-3.91	0	.921	7 (1,783)	**2.81**[a]	1.73-4.55	0	3 (559)	**3.39**[a]	2.18-5.25	0
AGO	5 (1,268)	1.08	0.56-2.08	0		3 (783)	1.02	0.17-6.09	0	3 (486)	1.15	0.39-3.39	0

Note: **AD** = anxiety disorder; **AGO** = agoraphobia**; Dx** = diagnosis; **Egger** = Egger test (assessing publication bias); **FU** = a sensitivity analysis where only follow-up data is pooled, excluding cross-sectional data; **GAD** = generalised anxiety disorder**; Inf =** correction by removing outliers and influential cases**; k** = number of studies**; n** = number of participants**; PD** = panic disorder**; SAD** = separation anxiety disorder; **RR** = risk ratio; **SOC** = social phobia; **SP** = specific phobia; **TF** = correction by Trim-and-fill method for publication bias; **95%CI** = 95% confidence interval.

[a] Significant effect size: overall p value < .05.

[b] Significant between-study heterogeneity: I^2>50 → Outlier/Influential cases correction (**Inf**).

[c] Removed as an influential case: Shalev et al. (2019).

[d] Removed as an influential case: Nimarko et al. (2020).

Supplement 2.16. Summary of Subgroup Analysis (Continued)

Variable	Subgroup	Any AD			SAD		GAD		SOC		SP		PD	
		k	RR	I^2	k	RR	k	RR	k	RR	k	RR	k	RR
Control parent psychopathology	Healthy control	19	2.10	43.5%			10	1.54	9	2.22	9	1.79		
	Parents w/o mood disorders	3	1.35	0%			2	2.88	3	1.14	3	1.19		
	p	**.002****					.067		**< .001*****		**.020***			
National income [a]	Developed countries [b]	21	1.93	55.2%	11	1.86	14	1.95	14	1.62	14	1.55	11	2.90
	Emerging countries [c]	4	1.33	64.3%	3	1.36	3	0.91	3	1.13	3	1.06	2	8.52
	p	.155			.156		.142		.518		.194		**.002****	
Quality	Studies with 'Good' rating	7	1.68	61.3%	5	1.71	5	1.94	5	1.58	4	1.51	5	2.81
	Studies with 'Fair' rating	18	1.92	60.6%	9	1.90	12	1.63	12	1.47	13	1.44	8	3.99
	p	.492			.683		.607		.792		.857		.342	

Note: AD = anxiety disorder; **GAD** = generalised anxiety disorder; **k** = number of studies; **PD** = panic disorder; **RR** = risk ratio; **SAD** = separation anxiety disorder; **SP** = specific phobia; **SOC** = social phobia.

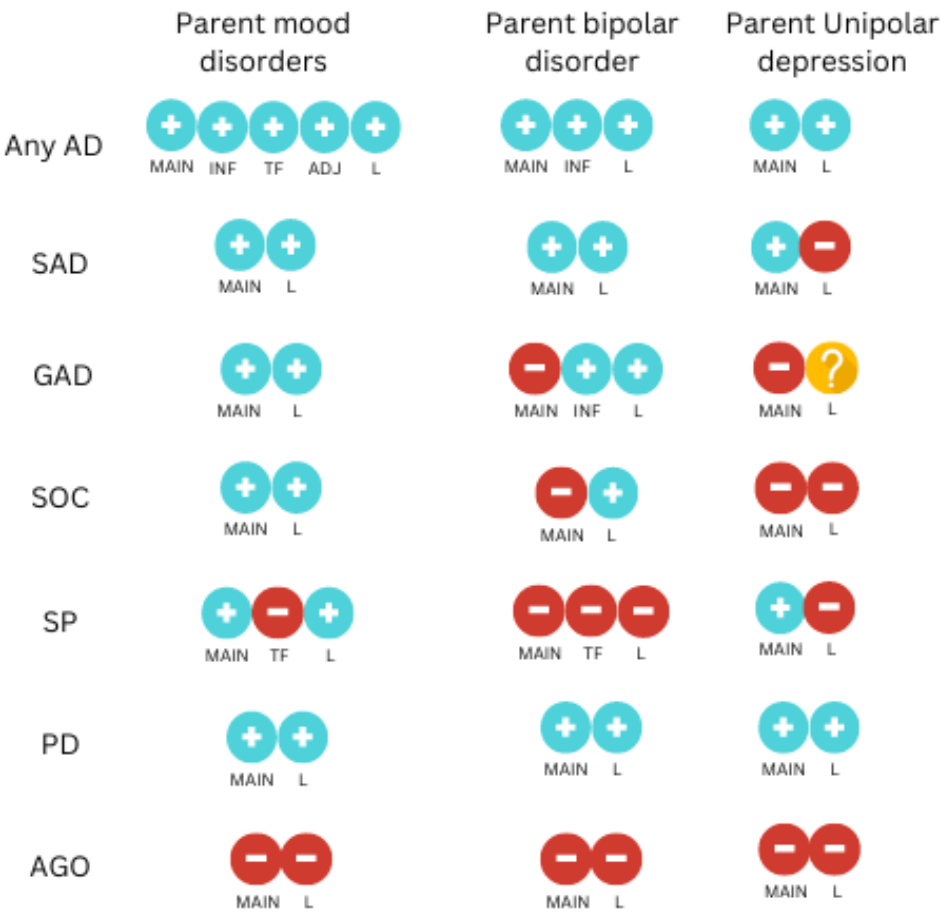
a. **National income**: countries were categorised based on the World Bank Income Classification (2022).

b. **Developed countrie**s: high-income countries, including Australia, Canada, Czech, Spain, Switzerland, UK, USA.

c. **Emerging countries**: upper-middle-income countries, including Brazil, Columbia, Mexico, Turkey.

* p < .05; ** p < .01; *** p < .001.

Supplement 2.17. Summary of the Main Analysis and Robustness Tests for the Association Between Parental Mood Disorders and Offspring Anxiety Disorders



(+) indicates a statistically significant increase in anxiety disorder risk among offspring exposed to a parental mood disorder compared to control offspring

(-) indicates no significant difference in anxiety disorder risk between exposed and control offspring

(?) indicates equivocal results (e.g., an initial non-significant finding that became significant after corrections)

Note: AD = anxiety disorder; **ADJ** = sensitivity analysis pooling only studies with adjusted ratios; **GAD** = generalised anxiety disorder; **INF** = sensitivity analysis after removing outliers or influential cases; **L** = sensitivity analysis pooling only longitudinal data (**Supplement 2.15**); **MAIN** = main analysis (**Table 2.2**); **PD** = panic disorder; **OA =** sensitivity analysis excluding studies with adult offspring (**Supplement 2.21**); **SAD** = separation anxiety disorder; **SP** = specific phobia; **SOC** = social phobia; **TF** = Trim-and-fill correction for publication bias (**Table 2.2**).

Supplement 2.18. Summary of Univariate Meta-Regression (Continued)

Variable	Any AD		SAD		GAD		SOC		SP		PD	
	k	β (SE)	k	β (SE)	k	β (SE)	k	β (SE)	k	β (SE)	k	β (SE)
AD in parents with mood disorders [a]	10	0.942 (0.670)										
p		.197										
Ethnicity (White, %)	16	-0.009 (0.011)							10	-0.009 (0.009)		
p		.441								.353		
Publication year	25	-0.021 (0.014)	**14**	**-0.072 (0.024)**	17	-0.002 (0.025)	17	-0.020 (0.027)	17	-0.018 (0.020)	13	0.017 (0.025)
p		.150		**.012***		.948		.472		.371		.496

Note: AD = anxiety disorder; **GAD** = generalised anxiety disorder; **k** = number of studies; **PD** = panic disorder; **RR** = risk ratio; **SAD** = separation anxiety disorder; **SE** = standard error; **SP** = specific phobia; **SOC** = social phobia. * p < .05; ** p < .01; *** p < .001.

a. Proportion of comorbid AD in parents with mood disorders.

Supplement 2.19. Psychopathology of Psychiatric Control Parents

First author (Year)	Control Type	Control Off (N)	MDD	AD	SUD	Others
Axelson et al. (2015)	Not BD	248	35%	28%	29%	
Birmaher et al. (2010)	Not BD	102	20%	20%	29%	
Palacio-Ortiz et al. (2017)	Not BD	150	17%	PD:2%; SOC: 5%; SP: 28%	Alc: 6%; PAS: 2%	
De la Serna et al. (2021)	Not BD	92	Yes[a]	Yes[a]	Yes[a]	
Zavaleta-Ramírez (2014)	Not BD	31	Yes[a]	Yes[a]	Yes[a]	
Feder et al. (2009)	Not MD	19	No[b]	SP: 16%	No[b]	No major medical illnesses
Galbally et al. (2020)	Not MD	162	No[b]	Yes[a]	No[b]	No major medical illnesses
Galbally et al. (2022)	Not MD	159	No[b]	Yes[a]	No[b]	No major medical illnesses
Murray et al. (2011)	Not MD	40	No[b]	Yes[a]	Yes[a]	
Rudaz et al. (2021)	Not MD	123	No[b]	Yes[a]	No[b]	

Note: AD = anxiety disorder; **Alc =** alcohol use disorder; **MDD =** major depressive disorder; **Not BD =** parents without bipolar disorder; **Not MD =** parents without mood disorders; **PD =** panic disorder; **PAS** = psychoactive substance; **SOC =** social phobia; **SP =** specific phobia; **SUD =** substance use disorder.

a. **Yes:** Psychiatric control parents may have this disorder, but the proportion is not reported in the study.

b. **No:** Psychiatric control parents should not have this disorder based on the exclusion criteria.

Supplement 2.20. The Influences of Parent Mood Disorders and Anxiety Disorders on Offspring Anxiety Disorders

	Parent Diagnoses	**Offspring Findings**
Beidel and Turner (1997)	MDD + AD (n = 29) vs MDD only (n = 24) vs AD only (n = 28) vs HC (n = 48)	• Rates of any AD (current Dx): MDD+AD (OR = 5.38), MDD (OR = 5.73) and AD (OR = 5.38) all > HC • No significant differences among the three clinical groups
Biel et al. (2008)	MDD + AD (n = 88) vs MDD only (n = 75) vs AD only (n = 75) vs HC (n = 80)	• Lifetime rates of SP: no significant differences among the four offspring groups • Rates of specific fears (symptoms): MDD + AD > MDD only, AD only and HC
Micco et al. (2009)	MDD + PD (n = 71) vs MDD only (n = 31) vs AD only (n = 12) vs HC (n = 33)	• SAD: Current and lifetime Dx: MDD+PD, MDD only, PD only > HC • GAD: Current Dx: MDD+PD > HC; Lifetime Dx: No difference • SOC: Current Dx: MDD only > HC; Lifetime Dx: No difference
Pine et al. (2005)	MDD + PD (n = 41) vs MDD only (n = 53) vs AD only (n = 24) vs HC (n = 26)	• Any AD (current Dx): MDD+PD, MDD only, and PD only > HC • No significant interaction between parental MDD and PD

Note: AD = anxiety disorder; **Current** = current diagnosis; **Dx** = diagnosis; **GAD** = generalised anxiety disorder; **HC** = healthy control; **Lifetime** = lifetime diagnosis; **MDD =** major depressive disorder; **PD =** panic disorder; **SAD** = separation anxiety disorder; **SOC =** social phobia; **SP =** specific phobia.

Supplement 2.21. The Risks of Anxiety Disorders in the Offspring of Parents with Mood Disorders by Offspring Age

Parent Dx		**Children (2-12 years)**			**Children & Adolescents (2-19 years)**					**Adults (> 19years)**			
Offspring	**k (n)**	**RR**	**95%CI**	**I^2 (%)**	**k (n)**	**RR**	**95%CI**	**I^2 (%)**	**Egger (p)**	**k (n)**	**RR**	**95%CI**	**I^2 (%)**
Any AD	5 (689)	**3.20**[a]	1.11-9.20	**73.0**[c]	19 (2,686)	**2.04**[a]	1.52-2.73	**63.2**[c]	.051	4 (1029)	1.45	0.98-2.14	37.3
Any AD (Inf)	4[e] (486)	**4.36**[a]	1.21-15.73	48.3	17[f] (2,495)	**1.97**[a]	1.61-2.41	19.6					
SAD	4 (516)	3.71	0.47-29.54	35.7	13 (1,433)	**1.57**[a]	1.12-2.20	0	**.039**[g]	2 (542)	0.99	0-30,707	59.9[d]
SAD (TF)					18	**1.46**[a]	1.02-2.09	5.2					
GAD	5 (719)	**3.87**[a]	1.71-8.78	0	14 (1,743)	1.51	0.82-2.77	44.9	.900	4 (1021)	**2.28**[a]	1.52-3.43	0
SOC	5 (719)	1.96	0.43-8.85	41.1	15 (1,801)	1.30	0.82-2.06	15.4	.470	2 (542)	**1.19**[a]	1.12-1.27	0
SP	5 (719)	1.99	0.57-6.94	36.0	15 (2,008)	**1.53**[a]	1.06-2.19	34.7	**.045**[g]	2 (542)	0.86	0-157	63.7[d]
SP (TF)					19	1.32	0.84-2.06	44.8					

PD	2 (192)	**8.39**[b]	0.01-6627	0	7 (738)	**4.36**[a]	2.16-8.77	0	.511	4 (1021)	**2.68**[a]	1.37-5.24	0

Note: AD = anxiety disorder; **GAD** = generalised anxiety disorder; **Inf** = correction by removing outliers or influential cases; **k** = number of studies; **PD** = panic disorder; **RR** = risk ratio; **SAD** = separation anxiety disorder; **SP** = specific phobia; **SOC** = social phobia; **TF** = correction by Trim-and-fill method for publication bias.

a. Significant effect size: overall p-value < .05.

b. A subgroup analysis showed that children had a significantly higher risk for panic disorder than adolescents/adults (RR = 8.39 vs 2.80, p = .042).

c. Significant between-study heterogeneity: I^2>50 → Outlier/Influential cases correction (**Inf**).

d. Outlier/influential cases corrections were not performed because the number of studies was two.

e. Removed as an influential case: Hirshfeld-Becker et al. (2006).

f. Removed as outliers: Hirshfeld-Becker et al. (2006), Zavaleta-Ramirez (2014).

g. Significant small-study effect: Egger test was performed when number of studies was at least 10. A p value in Egger test < .05 suggests publication bias → Trim-and-fill correction (TF).

Supplement 2.22. The Risks of Anxiety Disorders in the Offspring of Parents with BD by Offspring Age

Parent Dx		**Children (2-12 years)**			**Children & Adolescents (2-19 years)**				**Adults (> 19years)**			
Offspring	**k (n)**	**RR**	**95%CI**	**I^2 (%)**	**k (n)**	**RR**	**95%CI**	**I^2 (%)**	**k (n)**	**RR**	**95%CI**	**I^2 (%)**
Any AD	3 (390)	5.32	0.56-50.88	**51.9**[b1]	12 (1,543)	**2.20**[a]	1.37-3.54	**74.1**[b3]	2 (280)	1.30	0.05-29.59	20.1
Any AD (Inf)	2[c] (167)	**10.06**[a]	3.72-27.22	0	10 (1,352)	**2.22**[a]	1.62-3.06	16.0				
SAD	3 (415)	4.53	0.08-261.4	**57.1**[b2]	8 (915)	1.93	0.93-4.02	32.4	2 (353)	0.94	0-10,044	51.8[c]
SAD (Inf)	2 (286)	2.43	0.09-66.34	0								
GAD	3 (415)	7.09[a]	0.68-74.3	0	9 (958)	1.57	0.53-4.66	**51.8**[b4]	2 (353)	3.21	0.03-338	0
GAD (Inf)					8 (829)	1.15	0.43-3.07	33.0				
SOC	3 (415)	2.58	0.04-179.0	44.2	9 (958)	1.39	0.50-3.84	45.3	2 (353)	**1.18**[a]	1.13-1.23	0
SP	3 (415)	4.03	0.20-79.4	38.8	8 (915)	1.80	0.72-4.50	**60.8**[b5]	2 (353)	0.84	0-131	58.6[c]

SP (Inf)					6 (724)	1.72	0.67-4.42	40.1				
PD	2 (192)	8.39[b]	0.01-6627	0	6 (587)	**4.93**[a]	2.31-10.51	0	2 (353)	2.08	0.53-8.07	0

Note: AD = anxiety disorder; **GAD** = generalised anxiety disorder; **Inf** = correction by removing outliers or influential cases; **k** = number of studies; **PD** = panic disorder; **RR** = risk ratio; **SAD** = separation anxiety disorder; **SP** = specific phobia; **SOC** = social phobia

[a] Significant effect size: overall $p < .05$.

[b] Significant between-study heterogeneity ($I^2 > 50\%$) was addressed via outlier/influential-cases corrections (Inf): b1 excluded Birmaher et al. (2010); b2 excluded Hirshfeld-Becker et al. (2006); b3 and b5 excluded Zavaleta-Ramirez et al. (2014) and Hirshfeld-Becker et al. (2006); and b4 excluded Hirshfeld-Becker et al. (2006).

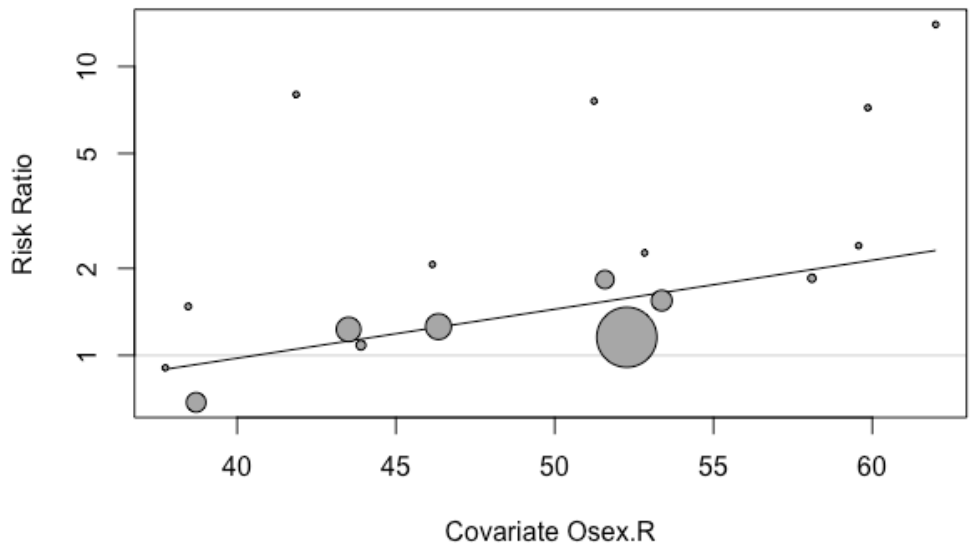
[c] Outlier/influential-cases corrections were not performed because only two studies ($k = 2$) were available.

Supplement 2.23. The Influences of Parent Sex on Offspring Anxiety Disorders

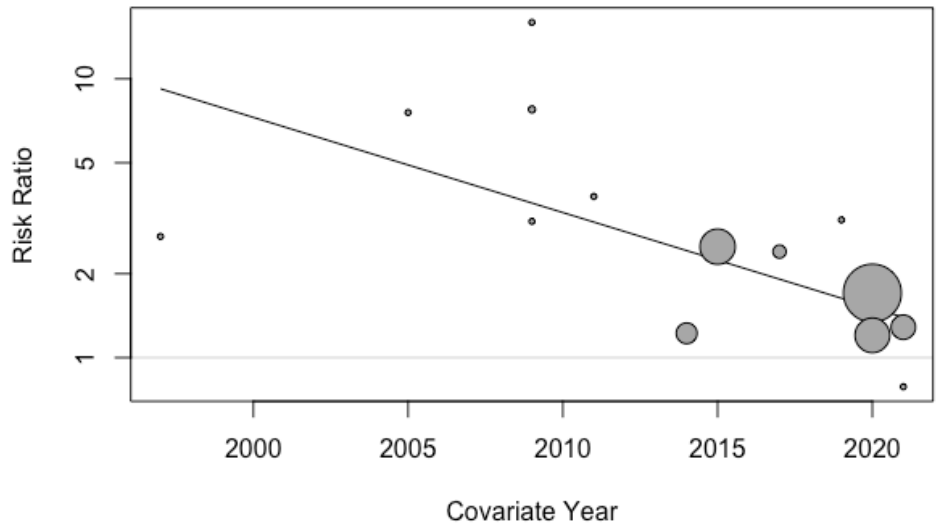
	Offspring Psychopathology	Father only with MDD vs neither parent with MDD	Mother only with MDD vs neither parent with MDD	Both parents with MDD vs neither parent with MDD
Nomura et al. (2001)	Lifetime AD (Total)	**OR = 4.8** (95% CI: 1.7-12.5, p < 0.01)	**OR = 3.2** (1.1-9.1, p < 0.05)	**OR = 8.3** (3.0-20.0, p < 0.0001)
	Lifetime AD (Boys)	**OR = 4.2** (0.8-20.0, p < 0.05)	**OR = 2.8** (0.6-12.5, p < 0.05)	**OR = 10.3** (1.8-100, p < 0.05)
	Lifetime AD (Girls)	**OR = 5.6** (1.4-20.0, p < 0.05)	**OR = 3.4** (1.0-12.5, p < 0.05)	**OR = 7.0** (2.0-25, p < 0.01)

Note: AD = anxiety disorder; **MDD** = major depressive disorder; **OR** = odds ratio.

Supplement 2.24. Meta-Regression Results of the Relationships Between the Effect Size of Specific Phobia and Offspring Sex (S2.23A) and the Effect Size of Separation Anxiety Disorder and Publication Years (S2.23B)



Supplement 2.24A: Meta-regression of the risk ratio for specific phobia risk ratio by offspring sex



Supplement 2.24B: Meta-regression of the risk ratio for separation anxiety disorder by publication year

Supplement 2.25. Summary of Multivariate Meta-Regression

Multivariate meta-regression (Forced entry)		Estimate (SE) for any AD
Number of studies		22
R^2		55.87%
Intercept		0.443 (1.20)
Parent control conditions	Healthy control	Reference
	Psychiatric control	-0.569 (0.26); p = .046*
Offspring age range	Adults	Reference
	C&A	0.308 (0.30)
Offspring sex	Female %	0.005 (0.02)
Parent sex	Mothers	Reference
	Parents	-0.146 (0.26)

Note: AD = anxiety disorder; **C&A** = children & adolescents; **R^2**: amount of heterogeneity that can be explained by the moderator variables; **SE** = standard error.
* p < .05; ** p < .01; *** p < .001.

Supplement 2.26. Other Subgroup Analyses / Meta-Regressions

Additional moderation analyses are presented in **Supplement 2.16 and 2.18**. Those analyses suggested that high-income countries exhibited a trend of higher RR estimates than upper-middle-income countries (except for panic disorder). A negative association between publication year and RR was noted for SAD (slope estimate $\beta = -0.079$, $p = .009$). In contrast, the proportion of White participants and study-quality ratings did not influence the RRs for different anxiety disorders.

Socioeconomic Context

Previous literature indicates low socioeconomic status increases the risk of anxiety in children and adolescents (Heshmat et al., 2016). Unfortunately, due to a lack of available data, I was unable to analyse the impact of socioeconomic status or family environment on offspring of parents with mood disorders in this study. However, macro-level data showed a different trend than family-level data. My subgroup analysis revealed a non-significant trend towards higher RRs in high-income countries compared to upper-middle-income countries (except for panic disorder). This trend aligns with a meta-analysis of global anxiety-disorder prevalence, which found higher risk in high-income versus low-income countries (Baxter et al., 2013). It remains unclear whether this reflects true prevalence differences or structural factors such as assessment and care availability. Notably, some researchers argue that income disparity—rather than average income—impacts anxiety disorders (Kahn et al., 2000).

Publication Year Effects

Through linear regression, I found a positive association between publication year and offspring mean age, likely because more recent studies involve long-term follow-up assessments from longitudinal cohorts, which typically include older offspring. The observed

decrease in SAD risk over time (**Supplement 2.24B**) may be due to two factors: (1) elevated RR for SAD in at-risk offspring during childhood/adolescence but not in adulthood, and (2) DSM-5 revisions that removed the age-of-onset restriction, thereby relatively increasing the identification of adult-onset cases in control groups of later studies.

Supplement 2.27. Diagnostic Tools for Offspring Psychopathology

Among the 31 papers assessing children and adolescent psychopathology, 26 used the Schedule for Affective Disorders and Schizophrenia for School-Age Children (K-SADS; Kaufman et al., 1997). K-SADS is a semi-structured diagnostic interview that integrates information from child and parent interviews through an assessor's consensus composite rating. This approach aligns with international guidelines recommending multiple informants (Creswell et al., 2021).

Three studies focusing on preschool-aged children used Preschool Age Psychiatric Assessment (PAPA; Galbally et al., 2020; Galbally et al., 2022; Tseng et al., 2015), a parent-report structured interview for children aged 3-8 years (Egger et al., 2006). The choice was justified, as parent-report measures have been shown to be consistent with clinical assessments in pre-adolescent samples (Creswell et al., 2021), whereas child-report instruments remain less well validated in this age group.

Finally, two studies of school-aged children and adolescents adopted the Parent as Respondent Informant Schedule (PARIS; Biel et al., 2008; Pine et al., 2005), another parent-report structured diagnostic interview that has demonstrated reliability for ages 6–18 (Kentgen et al., 1997). However, parent–child agreement on anxiety symptoms is generally low to moderate (ages 7–18), and maternal depression can further increase this discrepancy (Popp et al., 2017), so these results should be interpreted with caution.

Supplement 3.1. Enhancing Transparency in Reporting the Synthesis of Qualitative Research: The ENTREQ Statement

Item	Description	Presented?	Explanation and Reference
1	Aim: State the research question the synthesis addresses.	Yes	The aim is clearly stated in the introduction (Section 3.1 Introduction)
2	Synthesis methodology: Identify the synthesis methodology or theoretical framework used (e.g. meta-ethnography, thematic synthesis, framework synthesis).	Yes	Thematic synthesis is specified, following Thomas et al. (2008), guided by critical realist epistemology (Section 3.2 Methods, under Data Extraction and Analysis)
3	Approach to searching: Indicate whether the search was pre-planned or iterative	Yes	The search is described as pre-planned with multiple update dates (Section 3.2 Methods, Literature Search and Screening)
4	Inclusion criteria: Detail the study characteristics used as criteria for eligibility.	Yes	Detailed eligibility criteria include publication type/time frame, methodological approach, study demographics, and special consideration (Section 3.2 Methods, Eligibility Criteria)
5	Data sources: Describe all literature sources sampled for the synthesis (e.g., electronic databases, grey literature, alternative sources).	Yes	Databases: Medline, Embase, PsycINFO, SCOPUS, CINAHL. Additional: bibliographies, citation indices via Web of Science, extension to non-English sources

			via AI translation (Section 3.2 Methods, Literature Search and Screening)
6	Electronic search strategy: Describe the literature search (e.g., provide electronic search strategies with details of MeSH terms and keywords).	Yes	Table 3.1 provides the full search terms for Medline. Including concepts for qualitative, bipolar, parent, and child, with keywords and MeSH terms (Section 3.2 Methods, Literature Search and Screening; Table 3.1)
7	Study screening methods: Describe the process of study screening and sifting (e.g., title, abstract and full text review).	Yes	Independent screening of titles/abstracts and full texts by two team members (HM and the author); disagreements resolved via discussion with CC and KEAS. Contacted authors for clarification. (Section 3.2 Methods, Literature Search and Screening)
8	Study characteristics: Present the characteristics of the included studies (e.g. year of publication, country, population, number of participants).	Yes	Table 3.2 details characteristics for 19 studies, including author/year/location, aims, sample, diagnosis verification, recruitment, data collection/analysis, main themes, and eligible sample info. (Section 3.3 Results, Study Characteristics; Table 3.2)
9	Study selection results: Identify the number of studies screened and provide reasons for study exclusion (e,g, for comprehensive searching provide numbers screened and reasons).	Yes	PRISMA flow diagram (Figure 3.1) shows numbers screened, duplicates removed, full-text assessed, and exclusions with reasons (e.g., not qualitative, no BD

			focus). 19 studies included. (Section 3.3 Results, Study Characteristics; Figure 3.1)
10	Rationale for appraisal: Describe the rationale and approach used to appraise the included studies or selected findings	Yes	Appraisal was conducted to enable a systematic and transparent comparison of methodological rigour across the studies (Section 3.2 Methods, Quality assessment)
11	Appraisal items: State the tools, frameworks and criteria used to appraise the studies or selected findings (e.g. Existing tools; reviewer developed tools; describe the domains assessed: research team, study design, data analysis and interpretations, reporting).	Yes	CASP Qualitative Studies Checklist (10 items), adapted with numerical scoring; categorized as high, moderate, low (Section 3.2 Methods, Quality assessment)
12	Appraisal process: Indicate whether the appraisal was conducted independently by more than one reviewer and if consensus was required	Yes	Independent appraisal by HM and me; disagreements resolved through discussion (Section 3.2 Methods, Quality assessment)
13	Appraisal results: Present results of the quality assessment and indicate which articles, if any, were weighted/excluded based on the assessment and give the rationale.	Yes	Table 3.3 shows results: 15 high quality, 4 moderate; no exclusions as no major deficiencies. Notes on specific issues (e.g., power dynamics in only two studies) (Section 3.3 Results, Quality Assessment; Table 3.3)
14	Data extraction: Indicate which sections of the primary studies were analysed and how were the data extracted from the primary	Yes	Focused on results sections; relevant excerpts imported into NVivo; inductive codes from text, with

	studies? (e.g. all text under the headings "results /conclusions" were extracted).		attention to diret quotations (Section 3.2 Methods, Data Extraction and Analysis)
15	Software: State the computer software used, if any.	Yes	NVivo (version 1.71) for thematic synthesis; Miro platform for team discussion (Section 3.2 Methods, Data Extraction and Analysis)
16	Number of reviewers: Identify who was involved in coding and analysis.	Yes	I led the initial coding and theme generation, with subsequent themes reviewed and refined through collaborative team discussions using the Miro platform (Section 3.2 Methods, Data Extraction and Analysis; Reflexivity Statement)
17	Coding: Describe the process for coding of data (e.g. line by line coding to search for concepts).	Yes	Through readings, generating inductive codes directly from text; grouped into subthemes/themes; refined via discussions (Section 3.2 Methods, Data Extraction and Analysis)
18	Study comparison: Describe how comparisons between studies within each theme were made	Yes	Inductive codes were generated within each study and then iteratively compared and merged across studies into broader categories (Section 3.2 Methods, Data Extraction and Analysis)
19	Derivation of themes: Explain whether the process of deriving the themes or constructs was inductive or deductive.	Yes	Inductive coding from text, grouped into categories; final themes guided by critical realist epistemology (Section 3.2 Methods, Data Extraction and Analysis)

20	Quotations: Provide quotations from the primary studies to illustrate themes/constructs, and identify whether the quotations were participant quotations of the author's interpretation.	Yes	Extensive use of quotations throughout results; clearly identified as participant quotes or author interpretations (Section 3.3 Results, all themes/subthemes)
21	Synthesis output: Present rich, compelling and useful results that go beyond a summary of the primary studies (e.g. new interpretation, models of evidence, conceptual models, analytical framework, development of a new theory or construct).	Yes	Four themes with 12 subthemes, synthesized into a conceptual model (Figure 3.2); goes beyond summary by linking to BD-specific dynamics, developmental stages, and implications for interventions (Section 3.3 Results; Section 3.4 Discussion; Figure 3.2)

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Supplement 3.2. Matrix of Theme Representation within the Included Studies

Author (Year)	Codes	The Multifaceted Landscape of Parenting			The Evolving Dynamics of Child-Parent Relationships			The Dual Nature of Childcare for Parents with BD			Navigating Parental Challenges with BD		
		Parental Engagement	Parental Emotional Regulation	Parental Consistency	From Limited to Comprehensive Under-standing	From Reactive to Proactive Coping	From Compassionate to Overwhelmed Care	Childcare as Top Priority vs Self-Care	Childcare as Emotional Comfort vs Strain	Childcare as Motivation Promoter. Vs Underminer	Mindful and Proactive Strategies to Parent Children	Empathetic and Empowering Measures to Support Parent	Transparent and Tactful Communication to Strengthen Parent-Child Relationship
Aldridge (2006)	2		v						v				
Anke (2019)	10	v		v				v	v				v
Backer (2017)	28	v		v	v	v	v				v		v
Bee (2013)	2					v	v						
Campos	10		v		v		v						v

(2018)														
Chen (2021)	29	v	v	v		v			v	v	v	v	v	
Chen (2023)	24		v	v			v		v	v	v	v	v	
Davison (2018)	6				v				v		v			
Liu (2022)	6					v	v		v					
Mulvey (2022)	16	v	v	v	v	v	v	v	v	v				v
Pattanayak (2011)	3										v			
Petrowski (2016)	5	v				v	v							
Reupert (2012)	3		v			v	v							
Stallard (2004)	3			v										

Tjoflat (2013)	24	v	v	v	v	v	v	v	v	v	v	v	v
Venkaraman (2008)	29	v	v	v		v	v	v	v	v		v	v
Venkaraman (2011)	19	v	v	v	v	v	v						
Vivanco B (2016)	8		v	v	v		v						
Wilson (2009)	7							v	v			v	

Supplement 4.1. Interview Topic Guide

Part 1: Parenting Experiences in the Context of Parental BD

Can you tell me about yourself and your family?

- How many members are in your family?

How would you describe your children?

- What is their character like?
- How is their school life?
- What are their interests or hobbies?
- How would you describe your relationship with your children?

Can you give me a brief overview of your parenting experiences?

- How do you and the other caregiver divide childcare responsibilities, and what led to this arrangement?
- Do you and the other caregiver have different parenting styles? If so, how would you describe the differences?

Can you describe any problems or challenges you have faced in parenting?

- What are the most challenging aspects for you?
- How do you try to resolve these challenges?
- What resources or strategies have you found helpful?

Can you provide an overview of your mental health condition?

- How is your bipolar disorder managed? For example, are you on medication or receiving psychotherapy?
- What medication are you taking?
- Many people with bipolar disorder experience mood changes from high to low. Is that true for you? How do you feel when you are in a low mood or high mood?
- How do these mood changes affect your life and your relationships with others?

Do you notice a difference in your parenting when you are feeling high or low?

- Do you think your emotions affect your relationship with your children? How?
- Have you ever had to go to the hospital because of your illness? How did your children understand the situation, and how did they react? Was there any impact on them? Did you explain what was happening?
- Do you think medication has influenced how you parent? If so, how?

- Do you think societal attitudes towards bipolar disorder have affected your role as a parent or impacted your children?

Part 2: Parenting Experiences Managing Child Anxiety in the Context of Parental BD

Has your child experienced difficulties with anxiety, fears, or worries?

- When did this start? Does it still occur, or has it resolved?
- Can you provide one or two specific examples of your child's anxiety?
- Can you describe the anxiety in more detail?
- Are there moments or situations when your child's anxiety becomes better or worse?
- What does your child feel anxious or worried about? Have they shared this with you?

What do you think has influenced your child's anxiety?

- Do you think your child was born with it, or do you think it has been influenced by specific experiences?

When your child feels unwell because of anxiety (or is unwilling to do something), how do you deal with it?

- How do you respond? What do you say or do for them?
- What are the most challenging aspects for you?
- How have you tried to address these challenges? What things have you found helpful?
- Has anyone provided support or help (e.g., school, charity, NHS)? If so, how?

How have your child's anxiety problems affected you (e.g., emotionally or in daily life)?

Do you feel your own emotions have influenced how you manage your child's anxiety, positively or negatively?

Part 3: Parenting Experiences Disclosing Illness in the Context of Parental BD

Have you ever tried to discuss your emotional difficulties or diagnosis with your child?

If Yes: How did you explain your difficulties to your child?

- Do you think discussing your diagnosis affected your parenting or the parent–child relationship? If so, was it in a positive or negative way?
- Do you think discussing your diagnosis had an impact on your child's anxiety? If so, was the effect positive or negative?
- Do you have specific concerns about how sharing your diagnosis or difficulties might affect your child?

If No: What are your thoughts on discussing your diagnosis with your child?

- Do you have particular concerns about how sharing your diagnosis or difficulties might affect your child?

Part 4: Support Needs in Families Affected by Parental BD

What do parents with bipolar disorder (or their partner or other caregivers) need to support their children with anxiety problems?

- What key elements of an intervention would be helpful, and why?
- What challenges or potential problems do you foresee with such an intervention?

How should this support be delivered?

- What are the advantages or disadvantages of receiving support online versus in person?
- What are the advantages or disadvantages of a group-based format with other parents versus a one-to-one approach?

What do you thoughts on supporting parents so they can help their children overcome anxiety in families affected by bipolar disorder?

- What concerns, if any, do you have about this type of treatment?
- Do you think there are any reasons it would be difficult for you to benefit from this treatment?

Is there anything else you'd like to add, or any final thoughts or questions we haven't covered?

Supplement 4.2. Frequency of Coded References for Each Theme and Subtheme by Participant Group

	T1: Parenting Inconsistencies			T2: Guilt and Anxiety			T3: Parent Role Shifts				T4: Practical Strategies			T5: Restoring Parent Role	
Types [1]	**1.1**	**1.2**	**1.3**	**2.1**	**2.2**	**2.3**	**3.1**	**3.2**	**3.3**	**3.4**	**4.1**	**4.2**	**4.3**	**5.1**	**5.2**
Fathers with BD (n = 3)	3	2	1	2	3	0	2	3	2	0	1	2	1	1	0
Mothers with BD (n = 5)	3	4	4	3	2	2	4	2	3	2	3	2	1	3	2
Non-bipolar Parents (n = 3)	4	3	2	1	2	0	2	4	4	3	2	2	3	2	4
Mental health Professionals (n = 7)	5	5	4	5	6	3	5	7	3	5	2	4	2	3	5
Charity Workers (n = 5)	0	1	1	4	5	1	3	5	3	3	3	3	1	4	2
Number of Codes	6	5	5	5	7	4	6	7	7	5	4	4	3	5	6

[1] Within each code, multiple quotes from the same participant group are counted only once

Supplement 5.1. Frequency of Coded References for Each Theme and Subtheme by Participant Group

	T1: BD as a Resource for Supporting Child Anxiety			T2: BD as a Challenge for Supporting Child Anxiety		T3: Empowering Parents as Key Agents			T4: Adapting Treatment to Needs	
Types [1]	**1.1**	**1.2**	**1.3**	**2.1**	**2.2**	**3.1**	**3.2**	**3.3**	**4.1**	**4.2**
Fathers with BD (n = 3)	2	2	2	0	3	0	3	0	3	4
Mothers with BD (n = 5)	1	2	3	3	2	2	4	2	4	2
Non-bipolar Parents (n = 3)	3	2	3	3	0	2	2	2	2	0
Mental health Professionals (n = 7)	3	3	4	3	3	3	3	3	5	4
Charity Workers (n = 5)	2	1	6	3	0	3	2	0	5	3
Number of Codes	4	4	6	5	3	3	4	4	6	5

[1] Within each code, multiple quotes from the same participant group are counted only once

Supplement 6.1. Frequency of Coded References for Each Theme and Subtheme by Participant Group

	T1: Perceived Advantages		T2: Perceived Challenges			T3: Key Elements				T4: Practical Strategies		
Types[1]	**1.1**	**1.2**	**2.1**	**2.2**	**2.3**	**3.1**	**3.2**	**3.3**	**3.4**	**4.1**	**4.2**	**4.3**
Fathers with BD (n = 3)	3	2	2	0	5	5	2	2	3	4	3	1
Mothers with BD (n = 5)	4	3	2	3	2	8	1	2	2	4	4	0
Non-bipolar Parents (n = 3)	1	0	0	2	1	10	5	5	3	5	6	1
Mental health Professionals (n = 7)	4	1	2	3	3	9	3	3	0	6	7	6
Charity Workers (n = 5)	3	4	3	3	3	9	3	3	3	5	10	3
Number of Codes	6	4	4	4	3	14	5	6	4	8	10	6

[1] Within each code, multiple quotes from the same participant group are counted only once

Supplement 7.1. Research Question based on PICOST

Population (P)	Parents diagnosed with bipolar disorder; high-risk children (aged 0–18) with at least one first- or second-degree relative with bipolar disorder; and other family members involved in therapy.
Intervention or exposure (I)	Parent-focused (targeting parents with bipolar disorder) or family-focused (targeting the wider family, including parents and/or other carers alongside the offspring) psychological interventions
Comparators (C)	Placebo; standard care; sham; waitlist; or alternative active treatments.
Outcomes (O)	**Primary**: Child emotional and behavioural problems (e.g., anxiety; depressive and manic symptoms; behavioural issues). **Secondary**: Children's functioning (e.g., school performance, interpersonal relationships, sleep); parental outcomes (e.g., anxiety, mood, stress); and intervention acceptability (e.g., satisfaction, completion rates).
Study designs (S)	Controlled trials (randomised and non-randomised) and cohort studies.
Timeframe (T)	Assessments at baseline and at reported follow-up periods, with no restrictions on follow-up duration.

Supplement 7.2. Full Inclusion/Exclusion Criteria

Domain	Criteria[1]
Study Type and Design	Original, peer-reviewed clinical trials, including: • Controlled trials (randomised or non-randomised) with a comparator group • Cohort studies (prospective or retrospective), with or without a comparator group
Population	High-risk children (aged 0-18) with at least one first- or second-degree relative diagnosed with bipolar disorder, but not meeting diagnostic criteria for BD
Intervention	Parent-focused (targeting parents of high-risk children) or family-focused (addressing parents, high-risk children, and/or other caregivers) psychological interventions. Excluded: primarily child-focused or biological interventions (e.g., medication)
Outcomes	Reported changes in emotional and/or behavioural symptoms in high-risk children pre- and post-intervention. For primary RCTs, post-hoc analyses of secondary outcomes (child functioning, parenting/family outcomes, acceptability) may also be included.
[1] During full-text screening, apply these criteria sequentially from top to bottom. If a study is ineligible, record the first failed criterion as the exclusion reason in **Supplement 7.4**.	

Supplement 7.3. The Full Version of the Search Terms (OVID Medline[1])

Concepts[2]	Keywords
(A) Children	exp Child/ or exp Infant/ or Adolescent/ or (pediatric* or paediatric* or peadiatric* or offspring or child* or young or preschool* or infan* or newborn* or new-born* or perinat* or neonat* or baby* or babies or toddler* or minor* or boy* or girl* or kid or kids or school* or preschool* or pre-school* or kindergarten* or nursery* or juvenil* or pubescen* or prepub* or pre-pub* or preadolescen* or pre-adolescen* or adolescen* or teen* or youth* or "young people" or "young person").ti,ab,kw.
(B) Family or Parent	(exp Family/ or (parent* or mother* or matern* or father* or patern* or carer* or caregiver* or famil* or stepparent* or step-parent*).ti,ab,kw.
(C) Bipolar disorder	(exp Bipolar Disorder/ or (bi?polar or "bi polar" or mania* or manic* or hypomani*).ti,ab,kw.
(D) Psychological intervention	(exp Psychosocial Intervention/ or exp Psychotherapy/ or (intervention* or treat* or therap* or psychother* or psycho-therap* or FFT or manage* or trial* or counsel* or training* or support* or self-help).ti,ab,kw.
(E) Clinical trial	exp Clinical trial/ or exp cohort studies/ or (RCT or trial* or longitudinal or retrospective or prospective or follow-up or followup).ti,ab,kw.
	(A) AND (B) AND (C) AND (D) AND (E)

Note:

[1] A systematic literature search was conducted in OVID Medline, Embase, PsycINFO, and the Cochrane Central Register of Controlled Trials (CENTRAL) for articles published up to 13 December 2024. Reference lists and citation indexes of included articles were also screened in Web of Science to identify any additional eligible studies.

[2] The search strategy incorporated keywords and synonyms related to the core concepts of "child," "family or parent," "bipolar disorder," "psychological intervention," and "clinical trial."

Supplement 7.4. Reason for Exclusion in Full-Text Screening [a]

First author (Year)	Type of Exclusion	Reason for Exclusion
Abel (2020)	Offspring of relatives with mixed mental illnesses, no BD-specific family history	This study assesses the feasibility of a family-focused intervention (Young SMILES) to enhance quality of life among children with parents with serious mental illness
Alibeigi and Momeni (2018)	Targeting those already developing BD (or their caregivers)	This study evaluates a 12-session family-focused therapy for adults with BD, examining changes in symptom severity, expressed emotion, and coping styles.
Bahrami and Khalifi (2022)	Targeting those already developing BD (or their caregivers)	This study evaluates whether a four-week psycho-education programme can reduce affiliate stigma among family caregivers of individuals with BD
Beardslee (1993)	Offspring of relatives with mixed mental illnesses, no BD-specific family history	This study examined a psychoeducational preventive intervention for families with a parent with affective disorder, focusing on fostering resilience and shared understanding in children.
Beardslee (1998)	Offspring of relatives with mixed mental illnesses, no BD-specific family history	This study examined a psychoeducational preventive intervention for families with a parent with affective disorder, focusing on fostering resilience and shared understanding in children.
Casarez (2020)	Targeting those already developing BD (or their caregivers)	This feasibility study tested a 7-week psychoeducation intervention for caregivers of individuals with BD, evaluating feasibility, caregiver burden, depression, and immune biomarkers.
Clarkin (1990)	Targeting those already developing BD (or their caregivers)	This randomised trial examined the impact of inpatient family intervention combined with drug treatment on patient and family outcomes for individuals with affective disorders (including BD)
Cotton (2016)	Biological or child-focused interventions	This pilot study examined the feasibility and preliminary efficacy of mindfulness-based cognitive therapy (MBCT–C) in reducing anxiety among youth with a parent with BD.
Cotton (2020)	Biological or child-focused interventions	This pilot trial examined the effects of MBCT–C on anxiety, emotion regulation, and mindfulness in youth at risk for BD.

Fraser and Pakenham (2008)	Offspring of relatives with mixed mental illnesses, no BD-specific family history	This study evaluated the Koping Adolescent Group Programme (KAP), a peer support intervention for adolescents (aged 12–18) with a parent with mental illness.
Fristad (2015)	Children with subthreshold mood symptoms, no BD family history	This study evaluated Individual Family Psychoeducational Psychotherapy (IF–PEP) and omega-3 fatty acids for youth (aged 7–14) with subsyndromal bipolar disorder (BP–NOS, cyclothymic disorder).
Furlong (2024)	Offspring of relatives with mixed mental illnesses, no BD-specific data	This RCT evaluated Family Talk (FT), a family-focused intervention, against usual services in improving child and family psychosocial functioning in families with parental mental illness (PMI).
Garrett (2015)	Outcome Data Overlaps Miklowitz (2011)	This study investigated brain activation following FFT in BD-high-risk youth with mood dysregulation using pre-post fMRI and healthy control comparisons.
Garrett (2021)	Outcome Data Overlaps Miklowitz (2020)	The study examined neural changes in youth at high risk for BD after FFT or enhanced care using task-based fMRI in an RCT.
Goldstein (2014)	Biological or child-focused interventions	This pilot study evaluated Interpersonal and Social Rhythm Therapy (IPSRT) for adolescents at high risk for bipolar disorder to improve sleep regulation and interpersonal functioning.
Goldstein (2018)	Biological or child-focused interventions	This pilot RCT compared IPSRT plus Data-Informed Referral (DIR) with DIR alone for youth at familial risk for bipolar disorder.
Honeycutt (2022)	Biological or child-focused interventions	This double-blind RCT examines antidepressant-related hyperarousal in depressed or anxious youth at familial risk for BD, comparing escitalopram plus psychotherapy vs placebo plus psychotherapy (CBT and/or FFT-HR)
Hooley and Miklowitz (2017)	A case study rather than a clinical trial or a cohort study	This case study explored Family-Focused Therapy (FFT) for a high-risk adolescent with a parent diagnosed with BD, examining perceived criticism and its impact on treatment outcomes.
Hubbard (2016)	Targeting those already developing BD (or their caregivers)	This RCT evaluated a brief two-session psychoeducational intervention for caregivers of individuals with BD, assessing caregiver burden, knowledge, and self-efficacy.

Leopold (2020)	Age exceeds 0-18 and family history not BD-specific	This RCT evaluated CBT group therapy vs unstructured group meetings for patients aged 15-30 at risk for serious mental illness (SMI) with subthreshold bipolar symptoms.
McNamara (2022)	Biological or child-focused interventions	This study examined the effects of fish oil supplementation on brain connectivity and symptom severity in depressed youth at high familial risk for BD-I.
Meiser (2013)	Offspring of relatives with mixed mental illnesses, no BD-specific family history	This study evaluated an online psychoeducational intervention providing genetic risk and preventive strategies for individuals with a first-degree relative with major depressive disorder (MDD) or bipolar disorder (BD).
Miklowitz (2021)	Offspring of relatives with mixed mental illnesses, no BD-specific family history	This open trial assessed a mobile-enhanced family intervention for adolescents at risk for BD, examining engagement and mood symptom changes.
Miklowitz (2023)	Offspring of relatives with mixed mental illnesses, no BD-specific family history	This study aims to compare telehealth FFT with mobile apps for improving mood outcomes in adolescents whose parents have either BD or major depressive disorder.
Muller (2024)	Offspring of relatives with mixed mental illnesses, no BD-specific family history	This RCT evaluated VIA Family, an 18-month family-based intervention for children (6–12) of parents with bipolar disorder, schizophrenia, or recurrent major depression, assessing global functioning and psychiatric symptoms.
Nadkarni (2010)	Family history not BD-specific	This study examined conversion rates to bipolar spectrum disorder (BPSD) in children with depressive spectrum disorders and transient manic symptoms, assessing the impact of psychoeducational psychotherapy.
Neely (2015)	Targeting those already developing BD (or their caregivers)	This feasibility study examined the Family-Focused Treatment for Adolescents (FFT-A UK) as an adjunct to pharmacotherapy for adolescents under 18 years with early-onset bipolar disorder (EOBD).
Nordh (2022)	Offspring of relatives with mixed mental illnesses, no BD-specific family history	This study examined the effects of a preventive family-based intervention on children (aged 6–18) of parents with BD, depression, or anxiety disorders using a quasi-experimental design.

Qin (2021)	Biological or child-focused interventions	This pilot study examined neurofunctional effects of MBCT-C in mood-dysregulated adolescents (aged 13–17) at familial risk for BD, using fMRI-based network analysis.
Ping (2025)	Outcome Data Overlaps Serravalle (2021)	This study evaluated whether a family-based prevention programme (RUSH) improves HPA axis functioning in children of parents with BD.
Singh (2021)	Outcome Data Overlaps Miklowitz (2020)	The study investigated intrinsic brain connectivity changes in youth at high risk for BD after FFT-HR or EC using resting-state fMRI.
Strawn (2016)	Biological or child-focused interventions	This study examined fMRI changes in anxious adolescents at familial risk for BD before and after 12 weeks of MBCT-C.
Wong (2022)	Offspring of relatives with mixed mental illnesses, no BD-specific family history	The study examines therapeutic alliance in family therapy and its impact on adolescent depression over 4 months.
Yang (2021)	Biological or child-focused interventions	This pilot study examined structural brain network changes in mood-dysregulated youth (aged 10–17) at familial risk for BD following 12 weeks of MBCT-C.

[a] All search results were imported into EndNote 20, where duplicates were removed using Jane Falconer's method (Falconer, 2018). The deduplicated records were then imported into Rayyan (Ouzzani et al., 2016) for screening. Two reviewers (ET and RP) independently screened titles and abstracts, followed by full-text review; forward and backward citation searches were conducted to ensure comprehensive inclusion. Discrepancies were resolved through discussion, with CC providing the final decision when needed.

Supplement 7.5. Data Extraction Variables and Descriptions

Category	Variables
Basic Study Information	First author; publication year; country; study design; recruitment methods
Intervention Details	Delivery type; treatment and control conditions; treatment content; duration; timeline
Participant Characteristics	Age; gender; ethnicity; sample sizes; parents' and offspring's mental health conditions
Outcomes	Approaches to handling missing data; outcome adjustments; diagnostic measures (e.g., remission rates; recovery time); symptomatic measures (e.g., mean scores; symptom changes; standard deviations); secondary outcomes (child functioning; parenting; parental or family outcomes; participant enrolment; attendance and participation rates during treatment; dropout rates [post-treatment and follow-up])

Supplement 7.6. Baseline Measures Comparisons: Jones (2013) vs Jones (2017)

ISS-A	**Treatment**	**Control**	**Total**
Jones (2013)	N = 19 Mean = 220.63 SD = 153.78	N = 20 Mean = 172.1 SD = 123.02	N = 39 Mean = 195.74 SD = 139.19
Jones (2017)	N = 42 Mean = 110 SD = 127	N = 43 Mean = 149 SD = 129	N = 85 Mean = 129.73 SD = 128.75
p	**< .001**	.216	**< .001**
ISS-W	**Treatment**	**Control**	**Total**
Jones (2013)	N = 19 Mean = 131.63 SD = 88.93	N = 20 Mean = 92.9 SD = 62.66	N = 39 Mean = 111.77 SD = 78.06
Jones (2017)	N = 44 Mean = 124 SD = 79	N = 44 Mean = 150 SD = 74	N = 88 Mean = 137 SD = 77.21
p	.268	**.007**	.128
CES-D	**Treatment**	**Control**	**Total**
Jones (2013)	N = 19 Mean = 36.06 SD = 15.74	N = 20 Mean = 41.10 SD = 13.71	N = 39 Mean = 38.64 SD = 14.76
Jones (2017)	N = 36 Mean = 18.6 SD = 11.6	N = 42 Mean = 22.4 SD = 13.4	N = 78 Mean = 20.65 SD = 12.67
p	**< .001**	**< .001**	**< .001**
SDQ	**Treatment**	**Control**	**Total**
Jones (2013)	N = 19 Mean = 20.11 SD = 3.04	N = 20 Mean = 16.5 SD = 6.35	N = 39 Mean = 18.26 SD = 5.28
Jones (2017)	N = 47 Mean = 10.5	N = 49 Mean = 11.0	N = 96 Mean = 10.76

	SD = 6.5	SD = 6.5	SD = 6.47
p	**< .001**	**< .001**	**< .001**
PS	**Treatment**	**Control**	**Total**
Jones (2013)	N = 19 Mean = 3.37 SD = 0.73	N = 20 Mean = 3.69 SD = 0.62	N = 39 Mean = 3.53 SD = 0.69
Jones (2017)	N = 45 Mean = 3.2 SD = 0.6	N = 48 Mean = 3.3 SD = 0.6	N = 93 Mean = 3.25 SD = 0.6
p	.058	**.001**	**.004**

Note: CES-D = Centre for Epidemiologic Studies Depression Scale; **ISS-A =** Internal States Scale-Activation Subscale; **ISS-W =** Internal States Scale- Well-Being Subscale; **SDQ =** Strengths and Difficulties Questionnaire; **PS** = Parenting Scale

Supplement 7.7. Summary of Studies on Associated Factors and Their Impact on Outcomes

Study	Associated Factors	Outcomes	Correlations
Mood Symptoms			
Miklowitz (2013)	Family EE	% symptomatic at follow-up	35.7% in high EE families remained symptomatic vs 6.25% in low-EE families ($\chi^2 = 9.62$, $p = .002$)
		Weeks to mood recovery	Youth in high-EE families took longer to recover (mean = 21.2 weeks, SE = 3.32) than youth in low-EE families (mean = 11.38 weeks, SE = 3.29)
Miklowitz (2020)	Offspring sex	Weeks to mood recovery	Male participants recovered faster (Wald $\chi^2 = 5.57$, HR = 1.81, $p = .02$)
	Baseline depression		Lower baseline CDRS-R depression scores were associated with faster recovery (Wald $\chi^2 = 7.59$, HR = 0.98, $p = .006$)
	Baseline mania	Conversion to BD-I/BD-II	Higher baseline YMRS scores linked to greater risk of conversion to BD-I/BD-II (Wald $\chi^2 = 3.84$, HR = 1.08, $p = .05$)
Weintraub (2020)	Hispanic ethnicity	Mood trajectory class	Hispanic youths were more prevalent in the predominantly symptomatic group (28.1%) than in the significantly improving (9.8%) or moderately symptomatic groups (4.8%)
	Baseline depression		Youths in class 3 had more severe depressive symptoms than those in class 1 or 2 ($F_{2,123} = 9.43$, $p < 0.001$)

	Baseline anxiety		Youths in class 3 had greater anxiety severity ($F_{2,113}$= 5.86, p = .004) and higher rates of comorbid anxiety disorders (X^2 = 8.48, p = .01) than classes 1 and 2
	Baseline suicidal ideation		Youths in class 3 had more severe suicidal ideation than those in class 1 or 2 ($F_{2,111}$ = 6.92, p = .001)
Mood Instability			
Miklowitz (2022)	Offspring age	Mood instability (CALS)	Younger children had higher CALS total scores at baseline (r_{114} = −0.41, p < .0001), including elevation/activation and irritability (r_{114} = -0.35 and −0.45, p < .0001), as well as at follow-up ($F_{1,293}$ = 17.21, p < .0001)
	Follow-up depression		CALS total scores closely tracked mean weekly PSR depression scores during 4–6 month follow-up ($F_{1,293}$ = 54.63, p < .0001)
	Follow-up hypo/mania		CALS total scores closely tracked mean weekly PSR hypo/mania scores during 4–6-month follow-up ($F_{1,293}$= 15.47, p < .0001)
	Mood diagnosis (OSBD vs MDD)		Youth with OSBD had higher CALS total scores at intake ($F_{1,112}$ = 12.16, p < .001) and follow-up ($F_{1,293}$= 5.67, p = .018), with higher elevation/activation ($F_{1,296}$ = 13.02, p = .0004) and anxiety-depression ($F_{1,410}$ = 4.19, p = .04), but not irritability subscores.
	Comorbid disorders		Comorbid disorders had no independent effects on CALS scores at baseline. Over time, youth with both internalising and externalising comorbid disorders had higher CALS total scores ($F_{1,293}$ = 3.05, p = .029) and irritability subscores ($F_{3,410}$ = 4.06, p = .007).
	Psychiatric medication use		At baseline, medications use was not associated with CALS scores. At 12 months, youth on medications had higher CALS scores ($F_{1,63}$ = 8.21, p = .006), correlated with the number of medications (r_{65} = 0.31, p = .01), especially antipsychotics ($F_{1,63}$ = 8.37, p = .005) or ADHD agents ($F_{1,63}$ = 6.38, p = .014).

	Global functioning (CGAS)		Lower CGAS scores were associated with higher CALS total scores ($F_{1,253} = 83.79$, $p < .0001$) and all subscales ($p < .0001$)
Family Outcomes			
Miklowitz (2022)	Offspring age	Family conflict (CBQ)	Younger children had significantly higher CBQ scores in the follow-up intervals ($F_{1,188} = 8.37$, $p = .004$)
	Follow-up depression		Higher mean weekly PSR depression scores were associated with higher CBQ scores during 4–6-month follow-up ($F_{1,188} = 12.61$, $p = .0005$)
	Mood diagnosis (OSBD vs MDD)		CBQ scores were consistently higher throughout follow-up in youth with OSBD compared to youth with MDD ($F_{1,233} = 5.93$, $p = .016$). This relationship was mediated by mood instability (CALS total scores): OSBD (vs MDD) predicted greater mood instability over time ($Z = 3.10$, $p = .002$), and higher mood instability subsequently predicted increased CBQ scores in the next interval ($Z = 6.70$, $p < .001$). The overall indirect effect was significant (uncorrected: $\alpha\beta = 0.19$ [0.06-0.32], $p = .004$; corrected for mood symptoms: $\alpha\beta = 0.20$ [0.04-0.35], $p = .016$)

Note: **BD-I/BD-II** = bipolar I disorder/bipolar II disorder; **CBQ** = Conflict Behaviour Questionnaire; **CALS** = Children's Affective Lability Scale; **CDRS-R** = Children's Depression Rating Scale- Revised; **EE** = expressed emotion; **HR** = hazard ratio; **OSBD** = Other specified bipolar disorder; **PSR** = Psychiatric Status Rating; **SE** = standard error; **YMRS** = Young Mania Rating Scale

Supplement 7.8. Psychopathology Outcomes of Child-Focused Interventions for Children at Familial Risk for BD

Study	Groups / Time	Measures	Overall Effects
Cotton (2016)	MBCT-C single-group trial (n = 10, children aged 9–17 with an anxiety disorder and a parent with BD) 0 to 12 weeks	Clinician-rated anxiety (PARS), Youth-rated anxiety (STAI) and mindfulness (CAMM), Parent-rated emotion regulation (ERC)	• Clinician-rated anxiety significantly decreased ($p < .01$); youth-rated trait anxiety significantly decreased ($p = .03$), but state anxiety did not change significantly; parent-rated emotion regulation significantly increased ($p = .05$); Overall change in mindfulness was not significant ($p = .36$), although increases in mindfulness correlated with decreases in anxiety ($p = .03$) • Response rate was 90% for anxiety (PARS < 8); 90% of youth found MBCT-C helpful and would recommend it; 80% felt less worried and more patient; 67% of parents reported reductions in child anxiety.
Cotton (2020)	MBCT-C (n = 24, children aged 9–18 with an anxiety disorder and a parent with BD) vs	Clinician-rated anxiety (PARS) and severity (CGI-S), Youth-rated anxiety (STAI) and mindfulness (CAMM),	• **Between-group**: Greater improvement in overall clinical severity (CGI-S, $p = .05$). No significant between-group differences for clinician-rated anxiety ($p = .56$), child-rated anxiety (state anxiety: $p = .86$; trait anxiety $p = .32$), emotion regulation ($p = .69$), or mindfulness ($p = .54$).

	Psychoeducation Waitlist (n = 19) 0 to 12 weeks	Parent-rated emotion regulation (ERC)	• **Within-group**: Significant improvements during MBCT-C in clinician-rated anxiety ($p = .01$), clinical severity ($p < .01$), and child-rated trait anxiety ($p < .01$). Mindfulness improved during the waitlist period ($p < .01$) but not during MBCT-C ($p = .39$) • Changes in mindfulness correlated with improvements in child-rated state anxiety ($p = .04$), trait anxiety ($p < 0.01$), and emotion regulation ($p = .03$).
Goldstein (2014)	IPSRT single-group trial (n = 13, adolescents aged 12–18 with a parent with BD) 0 to 12 weeks	School Sleep Habits Survey, K-SADS (DRS, MRS), MFQ, CGI, C-GAS, Treatment Satisfaction Questionnaire	• Significant changes in sleep/circadian patterns: weekend wake times became earlier (reducing oversleeping; $p < .01$), total weekend sleep decreased ($p < .02$), and school-night bedtimes became later ($p < .01$). • No significant improvement in mood symptoms or C-GAS functioning scores; CGI-Severity scores improved significantly over time ($p < .01$), with minimal improvement noted in CGI-Improvement ratings. • High treatment satisfaction reported by adolescents (5.8/7) and parents (6.2/7). Session attendance was inconsistent (~64%), often due to parental BD severity.

Goldstein (2018)	IPSRT + DIR (n = 21, adolescents aged 12–18 with a parent with BD) vs DIR-alone (n = 21) 0 to 6 months	**Mood**: Clinician-rated ALIFE PSR; self-/parent-reported measures (MFQ, CMRS, SDQ) **Sleep**: Subjective questionnaires (ASHS, ISI) and Actigraphy	• No significant differences in self- or parent-reported mood/anxiety symptoms (MFQ, CMRS, SDQ, $p > .10$) and sleep problems (ASHS, ISI, $p > .20$) between groups. No new BD onsets in either group at 6-month-follow-up. • Clinician-rated subthreshold hypo/manic symptoms were significantly lower in IPSRT+DIR (1 case) than DIR-alone (2 cases, OR = 14.7, $p = .03$), and fewer weeks with subthreshold symptoms ($p = .0009$). Actigraphy showed a small improvement in wake after sleep onset (WASO) for IPSRT+DIR at 6-month follow-up ($p = .05$). • Treatment engagement was challenging: IPSRT session attendance averaged 50%.

Note: **ALIFE PSR** = Adolescent Longitudinal Interval Follow-Up Evaluation Psychiatric Status Ratings; **ASHS** = Adolescent School Sleep Habits Survey; **C-GAS** = Children's Global Assessment Scale; **CGI** = Clinical Global Impressions Scale; **CMRS**: Child Mania Rating Scale; **DIR =** Data-Informed Referral; **DRS** = Depression Rating Scale**; K-SADS =** Kiddie Schedule for Affective Disorders and Schizophrenia; **ISI** = Insomnia Severity Index; **MFQ** = Mood and Feelings Questionnaire; **MRS** = Mania Rating Scale; **SDQ** = Strengths and Difficulties Questionnaire

Supplement 7.9. Neurobiological Outcomes Following Family- or Parent-focused Interventions in Youth at Familial Risk for BD

Study	Groups	Measures	Overall Effects
Garrett (2015)	FFT-HR vs HC (n = 12 each; at-risk youth with familial risk and mood symptoms, ages 13-17)	fMRI (brain activation in emotion processing/regulation networks during an emotional facial expression task); YMRS; CDRS	• At baseline, at-risk youth showed hypoactivation in the DLPFC and hyperactivation in the posterior cingulate compared with healthy controls. • Post-treatment, at-risk youth showed increased DLPFC activation and decreased amygdala activation compared with pre-treatment. Increased DLPFC activation correlated with improved mania symptoms, suggesting enhanced frontal executive control. Amygdala changes did not correlate significantly with symptom improvement.
Garrett (2021)	FFT-HR vs EC (n = 20 each; youth aged 9–17 at familial risk with mood symptoms; 4-month treatment)	fMRI (brain activation in emotion processing/regulation networks during an emotional facial expression task); YMRS; CDRS	• In the FFT-HR group, DLPFC activation increased, and insula activation decreased from pre- to post-treatment, whereas the EC group showed a decrease in DLPFC activation with no significant change in the insula. • Across groups, decreased hippocampus/amygdala activation correlated with improvement in hypomania, and increased DLPFC activation correlated with reduced depression.

Singh (2021)	FFT-HR (n = 34) vs EC (n = 18), compared to HC (n = 30), with youth aged 9–17 at familial risk with mood symptoms; 4-month treatment	Resting-state fMRI (Intrinsic brain connectivity in emotion regulation and executive-control networks); YMRS; CDRS–R	• At baseline, at-risk youths showed greater VLPFC–aDMN connectivity than healthy controls (p = .004). Over 4 months, the FFT-HR group exhibited a significant increase in VLPFC–aDMN connectivity (p = .003), whereas the EC group did not (p = .11). • Increased anterior DMN connectivity correlated with decreased depression severity in the FFT-HR group only, suggesting that FFT-HR enhanced self-awareness and emotion regulation.
Ping (2025)	RUSH programme (OBD: n = 26) vs HC (n = 29), with offspring of parents with BD (aged 6–11); pre-, post-, 3-, and 6-month follow-ups	HPA axis functioning (salivary cortisol) and family environment (FES)	• No significant differences in HPA axis measures (cortisol awakening response, total daily output, diurnal slope) between OBD and healthy controls at baseline or over time. • In the OBD group, improvements in family organisation (and to a lesser extent, cohesion) were significantly associated with adaptive changes in HPA function—namely, elevations in cortisol awakening response and total daily cortisol output, and a steeper diurnal slope over time.

Note: **aDMN** = Anterior Default Mode Network**; CDRS–R** = Children's Depression Rating Scale- Revised; **DLPFC** = Dorsolateral Prefrontal Cortex**; FES** = Family Environment Scale (family organisation, cohesion, conflict, control, expressiveness); **fMRI =** Functional Magnetic Resonance Imaging**; HPA** = Hypothalamic-pituitary-adrenal; **HC** = Healthy Control; **EC** = Education Control; **FFT** = Family-focused therapy; **VLPFC** = Ventrolateral Prefrontal Cortex**; YMRS** = Young Mania Rating Scale