PAEDIATRIC BIPOLAR DISORDER AND THE LIVED EXPERIENCE OF PARENTS: A SYSTEMATIC REVIEW

by

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Submitted in partial fulfilment of the requirements for the degree of

Magister Artium in Clinical Psychology

in the

Department of Psychology

Faculty of Health Sciences at the

Nelson Mandela Metropolitan University

2014

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Declaration of Authenticity

I, *Gabriel Jacobus Stols (student number: 208106546)* hereby declare that the *treatise* for *MA Psychology (Clinical)* to be awarded is my own work and that it has not previously been submitted for assessment or completion of any postgraduate qualification to another University or for another qualification.

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Acknowledgements

- My Heavenly Father, who has been my constant source of strength, and who has enabled me to start and complete this journey. You are the air I breathe and I'm thankful for your presence in me.
- My son, Konrad, I am yet to experience an unconditional love so pure, authentic, and kind. Thank you for being my biggest blessing and inspiration. I dedicate this degree to you and I love you with all I am. You are extremely precious to me, and you are my most valuable treasure.
- My parents, Gawie and Erika, thank you for all the investments you've made in my life. There is no amount of money that can pay for the deposits and sacrifices you've made for me. Thank you for the way you have raised me and the solid foundation I can build my life on. I love you and honour you. You are the most amazing parents, and I will remain grateful to you forever.
- My grandparents, Hans and Suzi, thank you for your love and support. I am truly blessed to have had you as part of my life for so long. I have the utmost respect and love for you.
- My friend, Marcel, what a journey we've had together the last six years. Thank you for being part of my life story and that you'll continue to be part of the rest of the journey. A-Team style is all I can say...
- To Wayne and Paula, as well as Adele, thank you for your friendship and support which has made this dream a reality. I will forever be grateful for the part you've played in my story.
- My supervisor, Lisa Currin, thank you for your contribution you've made during this journey. I'm grateful for your guidance and support.
- To the rest of my family and friends, thank you for your support and belief in me.

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Abstract

Many international studies have been conducted on paediatric bipolar disorder, but few research studies have been conducted on parenting a child diagnosed with bipolar disorder, both on an international and national level. The researcher utilised Bronfenbrenner's Ecological Systems Theory as the theoretical framework in exploring and describing this research field. The study has been conducted by means of a systematic review and all of the articles included in the review examined some aspect of parenting and paediatric bipolar disorder. The articles were systematically assessed, and six themes emerged which include: paediatric bipolar on the rise; the effects of paediatric bipolar disorder, post-paediatric bipolar disorder; managing paediatric bipolar disorder is a family responsibility; foundations for effective parenting; and supporting parents of a paediatric bipolar patient.

The aim of this study is to explore and describe paediatric bipolar disorder: the lived experience of parents by means of a systematic review on published literature between 2000 and 2014. The researcher hopes that the outcome of this study will provide psychological practitioners and other interested parties with a deeper insight into the lived experience of parents of children diagnosed with bipolar disorder.

Keywords: Lived experience, paediatric bipolar disorder, parenting, school-going children

Chapter 1

Introduction

1.1 Chapter Preview

In this chapter, the key characteristics of the study are examined through the explanation of wide-ranging background information and the presentation of the motivation for the study. Furthermore, the relationship between parenting and paediatric bipolar disorder (PBD) isexplained. This concludes in anexplanation of the aim of the study and an outline of how this research study will be offered.

1.2 Background and Motivation

Little research has been done on the parents of children diagnosed with bipolar disorder at an international level. Research in this particular research field in South Africa is scant and there is a great gap that needs to be filled.

The responsibility and challenges that the parents of children diagnosed with bipolar disorder face are immense. The stressors experienced by these parents are long-term and are not a phenomenon that disappears overnight. Research has shown that parents of children with bipolar disorder experience feelings of being consumed as a whole, feelings of chaos, and feelings of being suffocated. For these reasons parents are constantly looking for resources and other educational material in order to parent with greater effectiveness (Wade, 2006). Paediatric bipolar disorder tends to distort family functioning and adds hostility and conflict to the parent-child relationship (Crowe, Joyce, Luty & Carter, 2011). Wade (2006) indicates that while parents are still completing their own developmental tasks associated with being a parent, they now also have to help their children with their development and come to accept their unexpected life situation. He also found that paediatric bipolar is on the increase and diagnosed more frequently at an early age. It is not only the child who suffers from their diagnosis but the whole family system, especially the parents. The behavioural and

emotional experiences of the child diagnosed with bipolar disorder affects everyone in the family, from parents to siblings. PBD is a major life event affecting not only the patient but everyone who cares for him or her (Croweet al., 2011). According to Schenkel et al., (2008) the parents of children diagnosed with bipolar disorderlack warmth, affection, and intimacy towards their ill child and there are more conflicts and forceful punishment. The lack of parental warmth, affection, and intimacy may contribute to the ill child becoming estranged from their family (Crowe et al., 2011).

The families of children diagnosed with paediatric bipolar disorder show higher levels of expressed negative emotion which contributes to a poor outcome towards treatment (Youngstrom, Birmaher, & Findling, 2008). There are very significantly distinct differences between family environments of children with bipolar disorder and those families without the disorder. Families of children with bipolar disordershow low levels of cohesion, active-recreational orientation, and high levels of conflict. These factors may have a direct and adverse impact on the cognitive and social development of the affected child (Belardinelli et al., 2008). The stressors of having a PBD child may lead to mental health problems in parents and siblings which again will have a counteractive effect on the affected child (Fristad & Lofthouse, 2004).

1.3 Aims of the Study

The aim of this study is to explore and describe paediatric bipolar disorder: the lived experience of parents by means of a systematic review on published literature between 2000 and 2014.

1.4 Overview of Chapters

This research study is structured into seven chapters. Chapter 2 defines the meaning of PBD and differentiates between adult and child bipolar. The chapter furthermore explains the symptoms, risks, aetiology, treatment, as well as the complexity of the illness. Chapter 3

deals with parenting in general and then moves onto parenting specifically related to PBD. This chapter also explores the dimensions of family functioning and parental behaviour, and also distinguishes between the different parenting styles. The chapter concludes by looking into ways to assist the patients and their parents in managing the illness more effectively. Chapter 4 discusses Bronfenbrenner's Bio-Ecological Systems Theory, which serves as this study's theoretical framework. Chapter 5 gives a description of a systematic review, which also includes the aim and motivation of the study. The methodology clarifies the research design, target population, procedures and data analysis methods, and also looks at the reliability, validity, and ethical considerations. Chapter 6 discusses the results of the systematic review and Chapter 7 contains the conclusions and limitations of the study, as well as the recommendations for possible future studies.

1.5 Conclusion

This chapter considered the motivation for the study, and a brief overview of the chapters was presented. In Chapter 2, paediatric bipolar disorder will be discussed.

Chapter 2

Paediatric Bipolar disorder

2.1 Introduction

Previously bipolar disorder has been considered rare in children and highly unlikely in adolescence until typical onset in late adolescence or early adulthood. Now, paediatric bipolar disorder (PBD) is increasingly diagnosed in children, including pre-schoolers (Parens & Johnston, 2010). There is an escalated interest by a number of studies and publications on PBD around the world in the disorder and its similarities and differences to adult BD (Faedda et al., 2004). Whilst PBD has traditionally been seen as a rare diagnosis it has been suggested that 30-40% of bipolar adults experience their initial manic episode during adolescence (Robertson et al., 2001). PBD has become a popular topic in child and adolescent psychiatry over the past decade, driven by research in the USA (Parry, Furber & Allison, 2009). Over the last decade the diagnosis of paediatric bipolar disorder has increased ten-fold (Carbray & McGuinness, 2009). Cahill et al., (2007) and Chan, Stringaris, Ford (2011) as well as Carr (2009) also noted in their studies that PBD increased dramatically and is increasingly being diagnosed.

PBD had a forty-fold increase between 1994 and 2003, and is escalating even further (Sahling, 2009, Miller & Barnett, 2008, Demeter et al., 2008). Bipolar disorder was one of the least frequent diagnoses recorded among child inpatients in 1996, but was the most common in 2004 (Blader & Carlson, 2007). Bipolar disorder is the sixth leading cause of disability in the developing nations and is the mental disorder with the highest suicide rate when compared to all other mental illnesses (Horn, 2008). According to Youngstrom et al., (2005) there are two main reasons why PBD has had such a steep climb in diagnosis and frequency. Firstly, bipolar disorderis one of the most genetically transferred mental illnesses and the heritability of the disease may even be present at conception. Secondly, according to

recent work with adults suffering with bipolar disorder, the condition appears more commonly to have an earlier age of onset than previously recognised.

The reason for the sharp incline in PBD diagnosis may be attributed to the under-diagnosis of the disease in the past (Sahling, 2009, Reddy & Srinath, 2000). The under-diagnosis of PBD may be due to manic symptoms which overlap those for ADHD (Geller et al., 2002). A concern at the moment is that up to one third of children diagnosed with ADHD might actually suffer from bipolar disorder (Youngstrom et al., 2005). It is therefore imperative to note that early intervention may contribute to a normal lifestyle and even decrease morbidity and mortality among those struggling with the disorder (Fields & Fristad, 2009). Most of the research on PBD is driven by the United States of America whereas Australia and New Zealand child and adolescent psychiatrists rarely and cautiously diagnose PBD (Parry, Furber & Allison, 2009).

Even though the research is scant, bipolar disorder in children has become the most common diagnosis in children under age 12 receiving psychiatric admissions (Parry, Furber & Allison, 2009). Research in this particular research field in South Africa is scant and there is a great gap that needs to be filled. According to West, Henry and Pavuluri (2007) there remains an unfortunate shortage of research investigating long-term maintenance in pharmacological or psychosocial treatments for PBD.

2.2 Defining Paediatric Bipolar disorder

Bipolar disorder is marked by chronic and recurrent mood instability and varies between extreme highs and lows, intermingled with mixed states (Crowe et al., 2011; West et al., 2009). Changes in mood, especially spontaneous mood swings that are atypical in their frequency, intensity, or duration, heighten the probability of bipolar diagnosis (Youngstrom et al., 2005). Olson and Pacheco (2005) states that PBD is a cyclical mood disorder, which is characterised by dramatic mood swings and dysfunctional behaviour, caused by genetics,

developmental failure, or environmental influences. Leahy (2007) defines PBD as a chronic and devastating illness. Bipolar disorderis recurrent and episodic in nature characterised by episodes of mania or hypomania, depression and mixed mood states (Carr, 2009). Mania can be defined as intense and unrealistic feelings of excitement and euphoria and depression comprises feelings of extreme sadness and misery (Butcher, Mineka & Hooley, 2010). Mixed moods according to Olson and Pacheco (2005) occur when a child experiences high energy together with depressed mood. Bradfield (2010) defines bipolar disorder as recurrent and discrete episodes of fluctuation in mood, which can have a significant effect on functioning.

The DSM-IV TR as well as the DSM-5 does not make any distinction between adult and paediatric bipolar disorder with regard to the diagnostic criteria. Previously, severe non-episodic irritability was seen as a characteristic of bipolar disorder in children, which lead to an upsurge in the diagnosis of PBD (DSM-5, 2013). In order to alleviate the rise in PBD the DSM-5 introduced a new diagnosis called, Disruptive mood dysregulation disorder (DMDD). DMDD is comprised of a longitudinal course of core symptoms, whereas PBD is manifested as an episodic illness. DMDD cannot be diagnosed in a child who has had a full cycle of hypomanic or manic episode, or who has had a manic or hypomanic episode lasting more than one day (DSM-5, 2013).

2.3 Symptoms of Paediatric Bipolar disorder

Symptoms that appear to be more specific to PBD include elevated mood, grandiosity, pressured speech, racing thoughts, and hypersexuality. The cardinal symptoms of PBD though are elevated mood and grandiosity (Youngstrom et al., 2005). Common features of PBD also include irritability, elated mood, and mixed mood (Lindsay et al., 2008). Other features include a decreased need for sleep, grandiosity, hallucinations, periods of long lasting anger, as well as suicidal and homicidal thoughts (Wade, 2006). PBD is furthermore

characterised by severe and maladaptive shifts in mood, energy, and behaviour (Parens& Johnston, 2010).

2.4 Aetiology of Paediatric Bipolar disorder

Between 50% and 67% of adult bipolar patients reported to have experienced illness onset before the age of 18, while between 13% and 28% reported onset before the age of 13 (NIH, 2008). The National Institute of Health (NIH), (2008) states that although heritability is centre to the aetiology of bipolar disorder, the family environment accompanying illness episodes may influence the frequency and timing of relapses.

From a neurobiological perspective, bipolar disorder is caused by a dysfunction in the fronto-limbic circuitry. This dysfunction over accentuates emotional stimuli and diminishes problem solving skills in the affected person. A child or adolescent suffering from bipolar disorderhas difficulty regulating their mood when they experience extremes in emotion (Carbray & McGuinness, 2009).

2.5 Risks of Paediatric Bipolar disorder

PBD pose significant implications for young people, including, poor social and academic performance (Demeter et al., 2008), psychosocial dysfunction, and increased risk of suicidal behaviour (Chan, Stringaris & Ford, 2011). Children and adolescents with bipolar disorder have an increased risk of substance abuse, suicidal ideation, suicide attempts, and completed suicide (Demeter et al., 2008). PBD may place young people at risk for social, academic and occupational difficulties including school failure, relationship difficulties including family and peers, legal problems, and problems with career development. Furthermore, PBD sufferers are at increased risk of frequent hospitalisation, substance abuse, and suicide (Carr, 2009). Some additional symptoms of PBD are poor psychosocial and family functioning, difficulty in peer relations and relations with siblings, school problems, ineffective problem

solving skills, which tends to lead to hostility and conflict between parents and child (West et al., 2009). Impaired social development will leave the child isolated and in a state of hopelessness and despair (Olson & Pacheco, 2005).

From a child-developmental perspective, bipolar disorder significantly distorts childhood development and contributes to substantial impairment (Fields & Fristad, 2009).

2.6 Difference between Adult and Paediatric Bipolar disorder

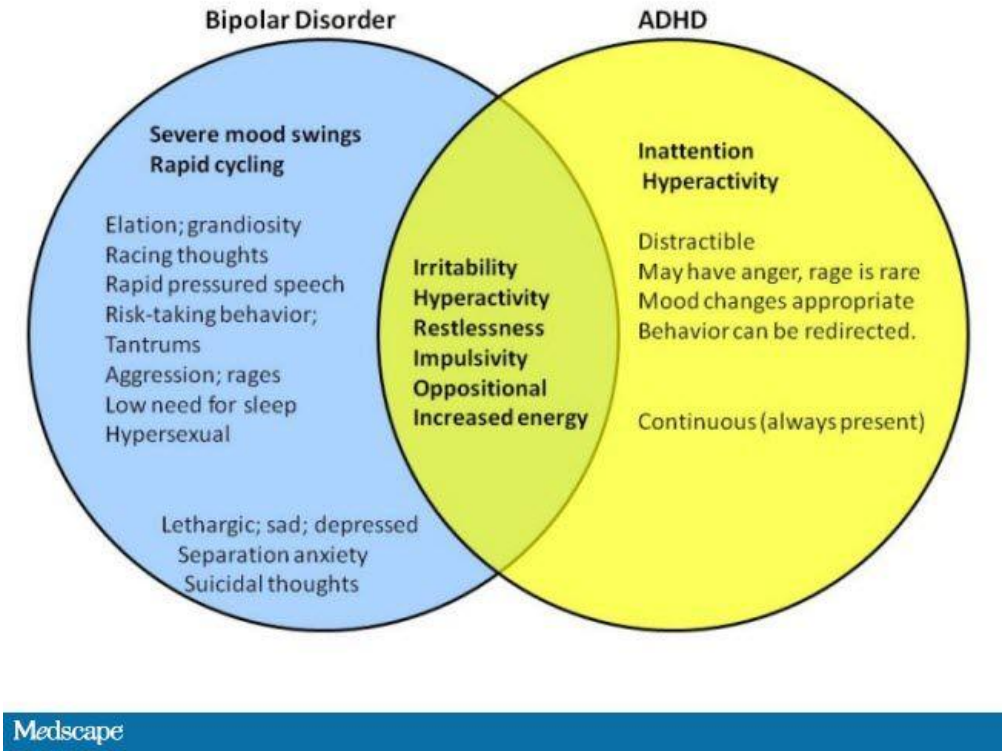
PBD differs from adult bipolar disorder, as PBD is marked by longer episodes, rapid cycling, prominent irritability, as well as high rates of co morbid attention-deficit/hyperactivity disorder (ADHD) and anxiety disorders (Carbray & McGuinness, 2009, Aravind & Krishnaram, 2009). PBD is often characterised by more severe, remitting, and chronic course of illness, compared to adult bipolar disorder (Schenkel et al., 2008, Robertson et al., 2001). PBD patients have poorer recovery from both manic and depressive episodes as well as higher rates of relapse (Robertson et al., 2001). Adult bipolar disorder manifests extremes in mood, and lasts up to weeks or months, but with PBD mood can change hourly (Sahling, 2009). PBD is characterised by episodes of mood disturbance with multiple cycles involving changes in symptom polarity between the episodes of mood disturbance. PBD also has more frequent episodes marked by irritability and aggression as well as more incomplete recovery between episodes (Carr, 2009). Positive affective characteristics which one might find in adult bipolar disordersuch as euphoria, expansiveness, supreme self-confidence and self-importance are not often seen among children. Furthermore, intense, mission-driven efforts from adults to undertake projects, however ill-conceived, are also rare among children (Blader & Carlson, 2007).

The management of PBD also differs from adult bipolar disorder, as PBD is more challenging than adults because of the complexity of developmental issues, which involve

interplay of biological, social, psychosexual, cognitive, and personality factors (Robertson et al., 2001).

2.7 Paediatric Bipolar disorder is a Complex Diagnosis

Diagnosing psychiatric disorders in children has always been complicated, and several illnesses have diverse symptoms in children and adults (Miller, 2007). PBD is a complex and multifaceted disorder, which is complicated by the overlap of symptoms (Demeter et al., 2008) with other disorders such as ADHD, oppositional defiant disorder (ODD), and conduct disorder (CD) (Cahill et al., 2007). PBD may go undiagnosed due to its complex and diverse presentation (Leahy, 2007). One of the reasons PBD is so difficult to diagnose is because of the controversy (Strober at al., 2006) in connection with the differentiation of mania from ADHD (Geller et al., 2002). PBD is a difficult and grey diagnosis as there is a substantial overlap between the symptoms of mania and the symptoms of ADHD and disruptive behaviour disorders.



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An important factor to take into consideration is that some children with geneticallytransmitted “dormant bipolarity” are primarily diagnosedwith ADHD and/or depression then treated withstimulants and SSRIs, respectively. The patients react to these pharmacological interventions with a manic episode which also adds further possible confusion to an already complex diagnosis (Lofthouse & Fristad, 2004). Furthermore, irritability which is one of the diagnostic criterions for PBD is also a major diagnostic criterion in depression, mania, posttraumatic stress disorder, oppositional defiant disorder, adjustment disorder, and intermittent explosive disorder (Youngstrom et al., 2005). Irritability and aggression lacks diagnostic specificity and may not be the best means by which to differentiate PBD from other psychiatric disorders in the young (Demeter et al., 2008).

Pavuluri and Bishop (2007) list PBD into “narrow”, “intermediate”, and “broad” types. The narrow type includes children who meet the full diagnostic criteria for mania or hypomania as per the text-revised fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR), as well as the duration criterion of 7 or 4 days, respectively, and the presence of elevated mood or grandiosity. The intermediate phenotype is two subcategories of children: those with symptoms of short duration (i.e. 1–3 days), and those with episodic irritable mania or hypomania meeting the duration criteria but without elated mood. The broad phenotype is those with the non-episodic symptoms of severe irritability and hyper arousal seen with the narrow phenotype, but without the symptoms of elated mood or grandiosity.

Misdiagnosis of bipolar disorder can have a negative impact on the provision of appropriate and early intervention, which may result in either no treatment or the use of ineffective and even harmful treatment. As such, a careful diagnosis of PBD is critical for planning an appropriate and effective treatment plan (Washburn, West & Heil, 2011). Both

over- and under diagnosis have severe implications for the child and family, as misdiagnosis can lead to anxiety, helplessness, and hopelessness about the future. Under-diagnosis also may mean pointless suffering, delays in receiving successful treatment, and the recommendation of unproductive and sometimes unsafe treatments. In contrast, over diagnosis can set in motion stigmatization by self and others, long-term treatment including the use of several medications that often have major side effects, and unsuitable medical, psychological, and community interventions (Lofthouse & Fristad, 2004).

Lofthouse and Fristad (2004) came up with guidelines which may assist clinicians in diagnosing PBD effectively: First, because of their high level of co morbidity and overlapping symptoms with several other childhood disorders, making a cautious differential diagnosis is vital. Clinicians need to differentiate PBD from normal temperamental differences in childhood such as over activity, poor concentration,carelessness, self-important, imaginative play, ADHD, ODD, CD, learning disabilities and various anxiety, psychotic, Axis II, and pervasive developmental disorders; and from the effects of certain addictive substances, prescribed medications,medical conditions, and poor child-rearing. Second, the occurrence of manic symptoms must characterize a noteworthy change from baseline, even if that baseline is already disrupted by another condition such as ADHD. In that case, the overlapping manic symptoms of distractibility, psychomotor agitation, and involvement in dangerous activities/pressure to keep talking must increase, alongside altered mood, above and beyond the baseline ADHDsymptoms of inattention, hyperactivity, and impulsivity. Third, even though manic symptoms in children may not be obviously episodic, there must be confirmation of elevated and fading mood symptoms that frequently occur uninvited and are often not related to environmental events. Fourth, during the distorted (expansive, euphoric, or irritable) mood state, supplementary manic symptoms (e.g., grandiosity, racing thoughts,and decreased need for sleep) must be present. Finally,

comprehensive information has to be collected about the family, developmental and medical history, social skills, and the child's school experience in order to understand symptom appearance in the larger perspective of the child'slife. In addition, a mood history, clearly demarcating onset, duration, severity, impairment, and precipitation of mood symptoms during the child's life, can further differentiate the various PBD subtypes (BP-I, BPII, cyclothymia, BP-NOS) from one another.

2.8 Treatment of Paediatric Bipolar disorder

It is important to note that the trial and error nature when it comes to the treatment of PBD can escalate the already existing frustration and stress the family is facing (Stokowski, 2009). Treatment should take the frustration and stress of the parents into consideration and parents should be taken along step by step through the treatment process and not be left alone in the dark. It is clinically possible that early intervention can decrease morbidity and mortality in children who have been diagnosed with PBD, if greater effort to identify prodromal and early features of PBD is established (Faedda et al., 2004). Childhood bipolar disorder is a real and severe illness that should be acknowledged and treated as early as possible (Miller, 2007). Treatment of PBD requires a multimodal approach incorporating both pharmacologic and psychosocial interventions. Although medication is important for any treatment approach to PBD, psychosocial approaches are critical (Washburn, West & Heil, 2011). A primary challenge facing treatment researchers in PBD is to expand treatments that target disorder-specific symptoms and functioning in order to promote sustained remission. Psycho-education is an important intervention and needs to be followed by follow-up booster sessions in order to sustain progress (West, Henry & Pavuluri, 2007).

There are about 18 different medications routinely prescribed for bipolar disorder of which four have been approved by the United States food and drug administration (FDA) for use specifically in children: Lithium for children over 12 years old, Risperidone and

Aripiprazole for children over 10, and Haloperidol for children over 3 (Parens & Johnston, 2010).

With regard to the treatment of PBD concern, treatment should not only be limited to pharmacological intervention as psychosocial treatments have shown positive results in the treatment of PBD (Demeter, et al., 2008). Sullivan et al (2012) also suggests that the treatment of PBD entails more than just pharmacological intervention, indicating the resolution of familial conflict as a potential target in the treatment of PBD. Multifamily psycho education groups (MFPG) and individual family treatment (IFP) have shown to increase the understanding of mood disorders, improve the family environment, and increase mental health service utilisation (Demeter, et al., 2008).

Unfortunately, there are currently no published articles or research studies evaluating the long-term effectiveness or the safety of pharmacological treatment on children (Parens& Johnston, 2010).

Pavuluri and Bishop (2007) listed a rationale behind the use of Lithium, anti-epileptic, as well as other anti-psychotic medications in the treatment of PBD. This is explained in the table below:

Medication	Advantage	Disadvantage
Lithium	US Food and Drug Administration approved in children for acute mania and maintenance, well studied in adults, works well in classic presentation.	Slow onset of action, poor response as mono-therapy, frequent urination, and hypothyroidism often cause concerns.
Divalproex sodium	Well studied in adult bipolar	Poor response to mono

	disorder. Effective when coupled with stimulants for co morbid attention deficit hyperactivity disorder.	therapy in children. Poor tolerability secondary to excitability, gastrointestinal side effects, weight gain, and sedation. Potential adverse effects on the liver and thrombocytopenia require regular laboratory monitoring.
Carbamazepine	Long-standing efficacy in adults.	Efficacy in children not established. Substantial side-effect profile. Large number of drug interactions. Substantial laboratory monitoring required.
Oxcarbazepine	Anecdotal evidence suggesting that it may decrease aggression in PBD.	Efficacy not established.
Lamotrigine	Accruing evidence on maintenance for adult bipolar disorder. Considered as a primary choice alongside Lithium for depression subtype. Potentially useful in combination with second-	Very slow titration over 6–8 weeks to avoid rash. Although serious rash is uncommon, benign rash, when it occurs, is treatable with prednisone.

	generation antipsychotics or lithium for mixed or depressive episodes where depression is predominant.	
Topiramate	May have some benefit in reducing weight.	Negative trial in adult bipolar disorder, cognitive dulling. Equivocal evidence available in PBD, including that for neutralizing weight gain as an adjuvant. Significant side effect profile.
Risperidone	Efficacy demonstrated in paediatric trials. It has a predictable response profile and reduces aggressive behaviour.	Weight gain is common. EPS and symptoms from prolactin elevation (e.g. menstrual disturbances) sometime affect tolerability.
Quetiapine	Efficacy demonstrated in paediatric trials. Little/no EPS.	Sedation and weight gain are common.
Aripiprazole	Emerging data on adult bipolar disorder and paediatric disorders.	EPS, nausea, and vomiting can occur. Response is not always predictable with no knowledge on predictive factors.
Ziprasidone	Weight neutral in paediatric	EPS and less evidence for

	studies.	efficacy. Risk of prolonged QT interval requires cardiac monitoring.
Olanzapine	Good data in adult bipolar disorder and emerging data in PBD.	Severe weight gain limits tolerability and places children at risk of long-term sequel.
Clozapine	Potentially useful in treatment resistant cases.	Regulatory blood draws to check white blood count presents logistical challenges. Significant side-effect profile often limits tolerability in children and puts them at risk of long term sequel.

According to Washburn, West, and Heil (2011) the diagnostic protocol for PBD includes 5 steps: 1) screening for mania, by using diagnostic rating measures. 2) Establishing an actuarial estimate of the likelihood of PBD, by looking into the family history when it comes to bipolar disorder. 3) Evaluating diagnostic criteria with high specificity to PBD, which includes decreased need for sleep, inflated self-esteem and grandiosity, elated mood, hyper sexuality, pressured speech and racing of thoughts, as well as goal directed activity. 4) Obtaining evidence of episodes, in order to find an episodic nature of possible PBD. 5) Extending the window of assessment, whether the diagnosis of PBD is clear or unclear. PBD is such a complicating and life altering diagnosis that an extension to the window of assessment will enhance the accuracy of a possible diagnosis.

2.9 Conclusion

The diagnosis of PBD is becoming more and more prevalent which makes this field of study extremely important, especially in South Africa where research is scant. Children are usually first diagnosed with a co morbid diagnosis like ADHD and only later diagnosed with PBD, in a time sensitive window of opportunity. Early detection and diagnosis is imperative to a lucrative prognosis. There are numerous unanswered questions about PBD, given its elevated tempo of co-occurrence with other disorders and its atypical presentation compared to adults with bipolar disorder. Researchers have to explainwhy this occurrence has become more documentedin the last decade. (Lofthouse & Fristad, 2004).

This chapter provided some insight into PBD, looking at the definition, symptoms, aetiology, and risks of PBD. This chapter furthermore identified the differences between paediatric and adult bipolar disorder, as well as the complexity of the diagnosis and the treatment thereof.

The next chapter will look at parenting and the lived experience of parents with children that have been diagnosed with PBD.

Chapter 3

Parenting

3.1 Introduction

Parents are potentially the most influential people in a child's life and parents have to compete with other humans and technology in shaping their children's minds, values, and beliefs. Parenting can't be effective in isolation and needs to be interdependent on the social environment (Bogan, 2004). We live in extremely busy and rushed times. The demands of life have become heavier and more and more people are struggling to strike a balance between demand and supply. When parents have to cope with a child who has been diagnosed with bipolar disorder on top of everyday demands, the stressors and their severity increases exponentially. Family relations contribute the most to early childhood development and these relationships reflect both continuity and change (Louw & Louw, 2007). When a child is diagnosed with PBD there is a lot of change happening in the familial relationship and because these relationships are so important during the developing years it is imperative to look at parenting when it comes to PBD diagnosis.

According to Metsäpelto, Pulkkinen & Poikkeus (2001) a mother's negative emotionality is associated with less optimal qualities of parenting, which includes negative affect during interactions, power contention, and lowered receptiveness and warmth. Parents need to be aware of external influences that have an immediate and long-term impact on their children (Bogan, 2004). The diagnosis of PBD may be an influence creating tension between the parent and child relationship, and parents need to be mindful of their parenting strategies. Children are extremely vulnerable to adverse health and psychological defects due to chronic stressors (Taylor, 2009). A chronic stressor like PBD has a direct effect on a child's psychological wellbeing and it takes an emotionally strong parent to support and raise such a child.

3.2 Defining Parenting

Parenting refers to a group of people led by custodial parent(s), who share a mutual interest in contributing to the effective development of a child (Bogan, 2004).

3.3 Dimensions of Family Functioning

According to Louw and Louw (2007) there are four dimensions when it comes to familial functioning: 1) *Warmth and nurturance*, children are more securely attached if they have been exposed to warm and nurturing parents. Warm and nurturing parents provide a greater developmental advantage for their children compared to the development of children of cold and detached parents. 2) *Clarity and consistency*, children are less likely to be defiant and noncompliant if they have parents who set clear rules and consistently apply them. 3) *Expectations*, children tend to perform better and have greater self-esteem and altruistic behaviours if they have parents who have high expectations of them. 4) *Communication*, open communication and active listening between parents and their children promotes positive developmental outcomes and create more emotionally mature children.

3.4 Dimensions of Parental Behaviour

Louw and Louw (2007) note two parental behavioural dimensions: 1) *the love-hostility dimension*, in which parents are characterised by acceptance, understanding and approval. These parents rely little on corporal punishment as they prefer to use positive discipline through explanations and praise. 2) *The autonomy-control dimension* refers to parents who allow their children realistic freedom as opposed to those who exercise strict control over their children.

Parents make use of a combination of different behavioural patterns as parenting is a two-way process where the parents as well as the children influence each other's behaviour (Louw & Louw, 2007).

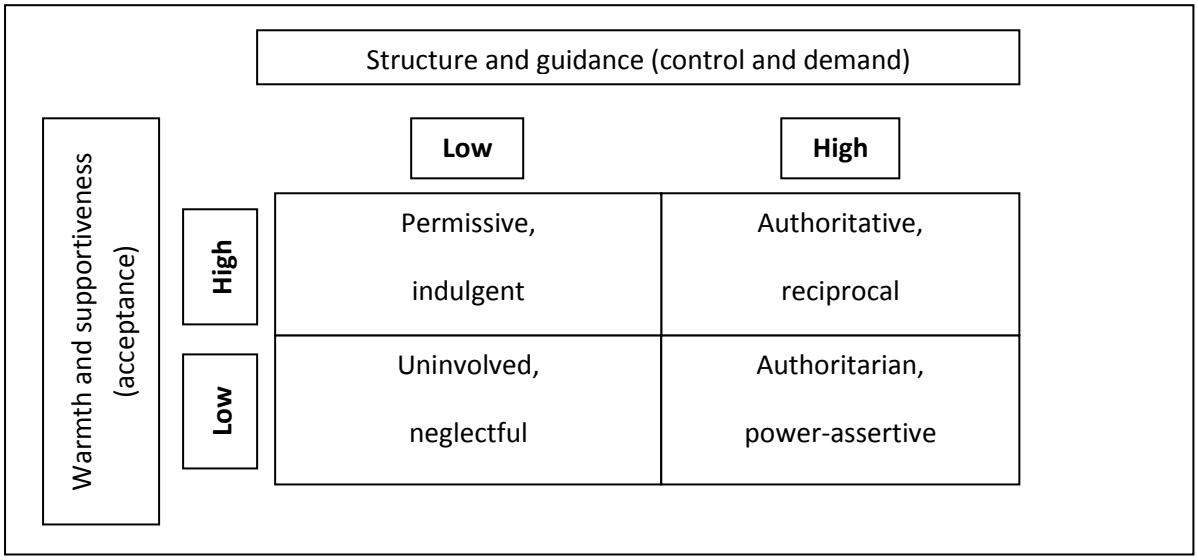
3.5 Parenting Styles

Parenting styles are combinations of parenting behaviour that occur over a wide range of situations, creating a lasting child-rearing climate (Louw & Louw, 2007).

According to Baumrind (1966) there are three parenting styles: 1) *the authoritative parenting style* is regarded as the most effective approach to child-rearing and is associated with many aspects of competence throughout childhood and adolescence. Parents using this method of parenting facilitate successful social adaptation and development of competence in children (Metsäpelto, Pulkkinen & Poikkeus, 2001). This style involves high acceptance and involvement, adaptive control techniques and the granting of appropriate autonomy. 2) *The authoritarian parenting style* is high in control and expectations, but low in nurturance and communication. This parental style appears cold and rejected and may resort to force and punishment if children disobey. Children of authoritarian parents tend to be unhappy and anxious, present high rates of anger and defiance as well as tending to be dependent and overwhelmed by challenging tasks. 3) *The permissive parenting style* is high in nurturance but low in expectations, control and communication. The permissive parent practice little control over their child's behaviour, which leads to children making their own decisions at an age when they are not yet capable to do so. Children of permissive parents tend to be impulsive, disobedient, and rebellious.

Louw and Louw (2007) notes a fourth parenting style in addition to the three styles mentioned by Baumrind: *the uninvolved parenting style* is low in acceptance and involvement, with little control and demand. Parents of this parental style are sometimes so overwhelmed by their own problems that they become emotionally detached from their children. This parental style has a negative influence on all aspects of a child's development, including attachment, cognition, emotional and social skills. Furthermore, Metsäpelto, Pulkkinen & Poikkeus (2001) add an additional parenting style called *the adult-centred*

parenting style. This style comprisesauthoritarian and neglectful parenting, in which parents respond to their child's behaviour according to their own needs by imposing restrictive control on the child. The parents show little interest in the child and the child's feelings and opinions.



Relationship of parenting dimensions to four parenting styles (Louw & Louw, 2007)

3.6 Cultivating Familial Cohesion

In order for children to have a healthy development they need a healthy functioning family atmosphere to which they belong and connect to (Gfroerer, Kern & Curlette, 2004). Bogan (2004) mention five principles in strengthening the family system: 1) *Setting aside a family night*. Planning a regular dedicated evening where the family can interact with each other in a qualitative way. 2) *Scheduling regular interaction with the extended family*. A family does not flourish in isolation but is interdependent on other sub-systems and parents need to plan time for the family to build connections with extended family members. 3) *Establishing unique family memories*. Memories are intentional and effort should be made to plan and execute events and activities which would be conducive to forming new memories together as a family. 4) *Playing "remember when..."* Thinking back remembering positive events

strengthens the cohesion of the family. 5) *Taking time to listen.* It is important to cultivate and practice an environment where active listening is promoted.

3.7 Parental Resilience

Parental resilience is necessary for a family who have a child suffering from PBD. Parents have their own concerns and relational and occupational stressors and having a child with PBD may exacerbate the existing challenges and stress. Resilience within the family may be seen as a grouping of family characteristics that enables members within the family unit to rise above hard times and show optimistic outcomes (Bhana & Bachoo, 2011). Resilient parents and families have a combination of certain determinants which gives them the edge over non-resilient families.

Bhana and Bachoo (2011) list factors which play a role in being a resilient family: 1) *Belief systems and values.* Parents and families who have an optimistic point of view, a strong sense of purpose and meaning, and high levels of personal efficacy are prone to be more resilient than other families. 2) *Self-reliance and self-determination.* Resilient parents and families have an internal locus of control instead of an external locus of control. They see themselves as liable for their predicament and therefore feel that they have the control to modify their situation. 3) *Spirituality.* The convictions in a higher power provide a considerable coping instrument to overcome challenges. 4) *Parenting styles.* Authoritative parenting is characterised by parental affection, receptiveness, and communication. Usual exercise of this form of parenting adds directly to family consistency, which has been recognized as an additional basis of hardiness among families. 5) *Family cohesion and warmth.* When a family display togetherness and joint efficacy, children may do better in school and are more probable to advance into university and progress their life opportunities. 6) *Community support.* The accessibility and use of social support and community engagement may serve as a critical resilience dynamic for parents and families.

3.8 Parenting and Paediatric Bipolar disorder

It is important to keep in mind that it is not only the child who suffers from their diagnosis but the whole family system, especially the parents. The behavioural and emotional experiences of the child diagnosed with bipolar disorderaffects everyone in the family, from parents to siblings. PBD is a major life event affecting not only the patient, but everyone who cares for him or her (Crowe, Joyce, Luty & Carter, 2011). Any mental illness diagnosis of a child can be stressful for the parents, even when there is a history of the same disorder in the family. Cross-sectional studies consistently support evidence for high levels of parent adolescent conflict, disturbance of affective bonds, and parent adolescent estrangement in families with a depressed teenager (Sanford et al., 2006). The trial and error nature of treatment, especially with mood stabilisation can add to the already existing stress and frustration the parents are facing (Stokowski, 2009).

Parents often need aid to cope with a child whose irregular actions, non-cooperation, agitation, or withdrawal is causing family disarray and conflict. They can be educated about the illness, provided with guidance in stress management and communication skills, and shown how to steer clear of words and actions that aggravate a child's symptoms. Family therapy and support groups may improve the lives of both parents and children (Miller, 2007). Parents of a child diagnosed with PBD often feel inadequate when it comes to parenting their child (Carbray & McGuinness, 2009). Furthermore, parents may often feel responsible for their child's illness, and that inadequate parenting has led to the disorder (Crowe et al., 2011). Typically, parents perform most of the care-giving and management of the disorder which can result in feeling fearful, frustrated, hurt and lonely. Parents are overburdened with their own responsibilities and that of their child, which brings about serious societal outcomes. Parents have the enormous task of staying emotionally connected with their ill child, while simultaneously maintaining their sense of self and hope. Parents are

often left with feelings of guilt, embarrassment, and confusion about their child's elated behaviour (Olson & Pacheco, 2005). Studies do indicate that some of the caregivers of a person diagnosed with bipolar disorderare emotionally committed to the person and tolerate problem behaviours quite well. However, there are a significant number of studies indicating that caregivers feel heavily burdened. These burdens are associated with own health problems, mental health, and cost (Crowe et al., 2011).

Little research has been done on the parents of children diagnosed with bipolar disorder on an international level (Jairam et al., 2004, Reddy & Srinath, 2000, Sullivan et al., 2012). Research on the influence of the family system on the onset and course of PBD is necessary for the development of preventative interventions (NIH, 2008). The responsibility and challenges that the parents of children diagnosed with bipolar disorder face are immense. The stressors experienced by these parents are long-term and are not a phenomenon that disappears overnight. Research has shown that parents of children with bipolar disorder experience feelings of being consumed as a whole, feelings of chaos, and feelings of being suffocated. For these reasons parents are constantly looking for resources and other educational material in order to parent with greater effectiveness (Wade, 2006). Familial conflict, adaptability and cohesion may be correlated with symptom severity in PBD. Families of PBD patients report lower levels of family cohesion and adaptability and higher levels of conflict than families of healthy children or population norms (Sullivan et al., 2012).

Research has shown that the parenting styles of parents of children with bipolar disorder differ significantly from parents of children without any psychological disorders. Parents of children diagnosed with bipolar disorder tend to be less affectionate, intimate and warm towards their children when compared with the parents of children without the disorder (Nafisa, Patel, Pavuluri, Schenkel, & West, 2008). According to Lindsay et al., (2008) the parents of children diagnosed with bipolar disorderlack warmth, affection, and intimacy

towards their ill child and there are more conflicts and forceful punishment. The lack of parental warmth, affection, and intimacy may contribute to the ill child becoming estranged from their family (Crowe et al., 2011). The families of children diagnosed with paediatric bipolar disorder show higher levels of expressed negative emotion which contributes to a poor outcome towards treatment (Youngstrom, Birmaher, & Findling, 2008). There are very significant distinct differences between family environments of children with bipolar disorder and those families without the disorder. Families of children with bipolar disorders have low levels of cohesion, active-recreational orientation, and high levels of conflict. These factors may have a direct and adverse impact on the cognitive and social development of the affected child (Belardinelli et al., 2008). There is also an adverse effect on the clinical outcome and pose a risk to the parent-child relationship. One of the biggest dangers in the parent's coping and dealings with their PBP child is that if not dealt in an adequate way the parents may suffer themselves from a possible bipolar relapse. The stressors of having a PBD child may lead to mental health problems in parents and siblings which again will have a counteractive effect on the affected child (Fristad & Lofthouse, 2004).

PBD sufferers indicated more minor conflicts with parents than paediatric patients who have been diagnosed with major depression disorder (Robertson et al., 2001).

Literature indicates that the intensity and stress of being a parent of a child diagnosed with bipolar disorder is significantly greater than for parents of children without the disorder. Paediatric bipolar disorder tends to distort family functioning and adds hostility and conflict to the parent-child relationship (Carbray et al., 2009). Wade (2006) indicates that while parents are still completing their own developmental tasks associated with being a parent, they now also have to help their children with their development and come to accept their unexpected life situation. He also found that paediatric bipolar is on the increase and diagnosed more frequently at an early age. Paediatric bipolar patients are usually under the

direct care of their parents, and appear to be susceptible to variations in the emotional climate of the family (NIH, 2008).

It will be highly beneficial for the family of a child who has been diagnosed with PBD to learn how his or her behaviour affects other family members, and how to make suitable changes to accommodate each other (Sahling, 2009). Youth with lower levels of family cohesion has greater rates of co morbidity with ADHD, oppositional defiant disorders and other disorders that frequently are co-diagnosed with PBD (Sullivan et al., 2012). Family involvement in the management of a patient's psychiatric illness is suggested to be an important part of the treatment plan for both adults and adolescents, and family therapy has been recommended for use in mood disordered adolescents (Robertson et al., 2001).

It is therefore important to educate parents about the illness and to improve their understanding about the condition in order to develop healthy parent-child relations (Lindsay et al., 2008). Crowe et al., (2011) strongly suggest that parents need interventions from professionals, helping them to understand and manage the disorder. These interventions may include psycho-education, problem solving, and communication skills. Parents need to be guided through the process of grieving the loss of their healthy child, predominantly true for families in which the child experiences an acute onset of PBD. Parents need to mourn the loss of the idealized healthy child before they can enthusiastically acclimatize to a child with a persistent illness, especially if bipolar disorderhas caused distress in the lives of other family members e.g., a grandfather who completed suicide, an aunt who spent her life in a state hospital (Kowatch et al., 2005).

Psycho-education should not be seen as a once off event, but rather as a process. The initial event should be supported by periodic booster events in order to minimize the relapse chances of negativity in parents towards their PBP child (Henry, Pavuluri & West, 2007).

The dynamics of family interactions should be targeted and worked on as a form of psychosocial intervention (Belardinelli et al., 2008).

3.9 Coping with Parental Stress Caused by PBD

Coping can be defined as the thoughts and behaviours one uses to manage the internal and external demands of situations that are appraised as stressful (Taylor, 2009). Stress can be defined as an event(s) leading to strain which results in physical and psychological health problems (Corey & Corey, 2006). Stress is a negative emotional experience enforced by predictable physiological, biochemical, and behavioural changes that are designed to reduce or adapt to the stressor by either manipulating the situation to alter the stressor or by accommodating its effects. Coping refers to the management of internal or environmental demands that are appraised as taxing or exceeding one's resources (Taylor, Peplau & Sears, 2006). Coping is not a one-time act someone does, but rather a set of responses taking place over time, by which the situation and the person manipulate each other (Taylor, 2009).

Taylor, Peplau and Sears (2006) list coping strategies to deal with illness: 1) *Social support and seeking information*. Parents need to educate them on PBD as to what it is, how it presents, and how to effectively deal with it. A support group on PBD may assist the parents to deal more effectively with their child who has been diagnosed with PBD. 2) *Emotional regularity and ventilation.* The demands of coping with PBD from a parent's perspective can be excruciating and parents need to ventilate their frustrations in order to regulate their emotions. 3) *Personal growth.* Parents of children diagnosed with PBD are also individuals with needs and desires which should not be neglected. Therefore it is important for the parents not to stagnate but to cultivate personal growth. 4) *Positive thinking*. Being positive about the process and outcome of a child diagnosed with PBD may reduce stress and enhance coping strategies. Being optimistic parents may also reduce stress and enhance coping as they tend to be more positive, which may lead to a state of

psychological resilience (Taylor, 2009). Psycho-education about PBD can also be a means to alleviate parental stress by actively involving the parents in the treatment of their child. In families who took part in psycho educational sessions, parents reported better contentment with treatment services than controls, demonstrating that families were optimistic about being dynamically involved in the treatment (Sanford et al., 2006).

3.10 Treatment Goals for Parents and their Bipolar Child

Lofthouse and Fristad (2004) noted ten goals which will assist parents to cultivate effective parenting under difficult circumstances. 1) Parents knowledge of mood disorders, symptoms, as well as co-morbid disorders needs to be expanded. 2) Parents understanding of pharmacological, mental health and community-based (e.g., school) interventions have to increase. 3) Parents have to learn to distinguish their child from his or her symptoms. 4) Parents as well as children have to understand and accept that they are not to blame for the child's symptoms, but that they are responsible for managing the symptoms. 5) Improve manic and depressive symptom management. 6) Increase coping and self-preservation skills. 7) Enhance individual and family communication and problem-solving skills. 8) Improve peer as well as family relations. 9) Increase concordance between care giving adults. 10) Increase social support.

Psycho-education will improve the cohesion between the bipolar child and his or her parents considerably, which will have a positive influence on the prognosis of the disorder. Psycho-education treatments merge psychotherapy and education to boost awareness about a problem and encourage skill building. Psycho-educational treatments for PBD and adolescents assist families with information regarding the aetiology, course, prognosis, and treatments for PBD (Young & Fristad, 2007).

In a study of depressed and bipolar pre-adolescent children, six sessions of family psycho-education led to better progress in those receiving the program and enhanced adherence to

other treatments (Sanford et al., 2006). Psycho-education can be applied in several formats: single workshops for parents; 8-session outpatient multifamily psycho education groups; and 16-session individual-family psycho-education sessions (Fristad et al., 2003). All empirically evaluated psychosocial treatments for children with bipolar disorderare family-based and include a psycho-education component (Young & Fristad, 2007).

Young and Fristad (2007) listed content for parents and children over an eight week program which indicates the difference in information between the parents and the child suffering from bipolar disorder:

Session	Parent Content	Child Content
1	Childhood mood disorders and their symptoms	Childhood mood disorders and their symptoms
2	Medications: Monitoring effectiveness and side effects, namesand classes of medications	Medications: symptoms and the medications that target them; ‘‘Naming the Enemy’’
3	‘‘Systems of Care:’’ Mental health and educational services	‘‘Tool Kit’’ to manage symptoms and emotions
4	Learn about negative family cycle; Review first half of theprogram	Learn about the connection between thoughts, feelings, and actions; Thinking-Feeling-Doing
5	Develop problem solving and coping skills	Develop problem-solving skills ‘‘Stop-Think-Plan-Do-Check’’
6	Improve verbal and non-verbal communication coping skills	Improve non-verbal communication skills
7	Symptom management	Improve verbal communication skills

8	Review second half of the program; graduate	Review and graduate

3.11 Conclusion

This chapter looked at the parental stress and difficulties parents of a child with bipolar disorder go through and how the parents should be actively involved in the treatment and recovery of their child. Parents also have a responsibility in the maintenance of the illness, supporting their child and the rest of the family system. The involvement of the parents supporting their bipolar child challenge the family and parental system to a great extent, and parents have to be supported by mental healthcare providers to be informed about the paediatric illness as well as how to cope more effectively with the disorder.

The next chapter will look at the theoretical framework that was used in compiling this systematic review.

Chapter 4

Bronfenbrenner's Bio-Ecological Systems Theory

4.1 Introduction

For the purpose of this study, the researcher will make use of Bronfenbrenner's Bio-Ecological Systems Theory. Ecological models include a developing bulk of theory and research concerned with the practice and circumstances that direct a lasting track of human progress in the actual environments in which humans live (Bronfenbrenner, 1994). Urie Bronfenbrenner broke new ground in studying the behaviour of children in their natural life space of family, school, peer group, and community. Bronfenbrenner mapped the key circles of influence that enclose each child. The most influential circles make up the immediate life space of family, school, and peer group. Furthermore, several children are involved in important area connections such as work, church, youth clubs, and formal or informal mentoring. Surrounding these circles of influence are broader cultural, economic,and political forces (Brendtro, 2006). When the ecology is in equilibrium, children live in accord with self and others. But if the ecology is disrupted or in stress, the child experiences conflict and maladjustment (Brendtro, 2006).

The theory of the ecology of human development is transforming practice for meaningful work with children and youth. Bronfenbrenner's research highlights the power of human relationships which serves as impetus for children on pathways to problematic or positive life outcomes (Brendtro, 2006). Bronfenbrenner theorised different ecological systems which he labelled microsystem, mesosystem, exosystem, macrosystem, and chronosystem (Swick & Williams, 2006). Within each of these systems, the parent of the child diagnosed with bipolar disorder faces many challenges, stressors, and personal developmental issues. This study indicates that PBD is on the rise with adverse effects, which poses a risk to the entire ecosystem. It is therefore important for the patient and the patient's family to be psycho-

educated in managing the disorder effectively. The effects of having a child with bipolar disorder are immense and the parents need the maximum support they can get in order to cope with the illness.

This study is an exploratory, descriptive, and qualitative research study informed by Bronfenbrenner's Bio-Ecological SystemsTheory. The Bio-Ecological Systems Theory of Bronfenbrenner is about the developing person. The parents of children diagnosed with bipolar disorder will be the developing person in the various systems as development is seen as an ongoing process not limited to child and adolescent development.

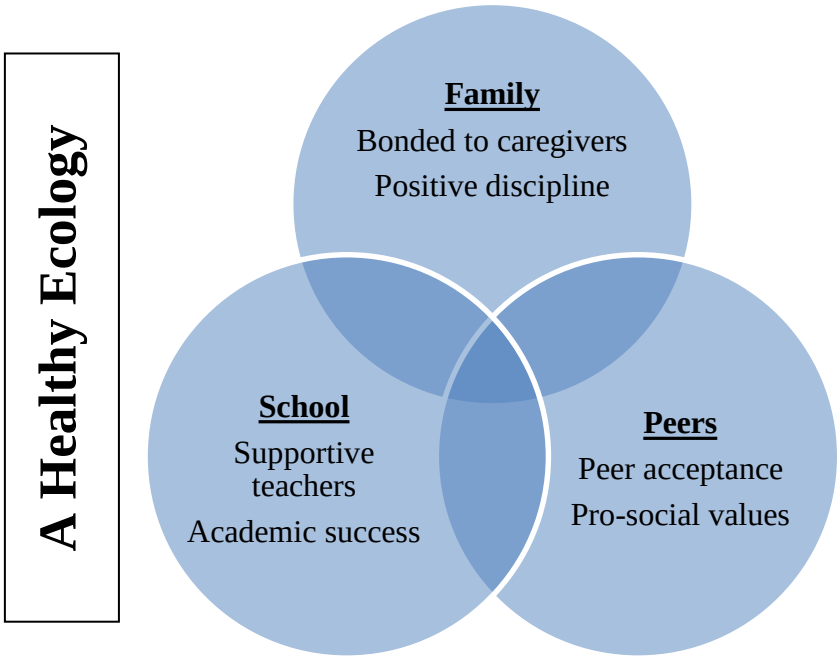
Today's families face many stressors during the early childhood years. Particular stressors like homelessness, violence, and chemical dependence, distorts the family system. Bronfenbrenner's Bio-Ecological perspective offers an insightful lens for understanding and supporting families under stress (Swick & Williams, 2006). PBD affects the family system as a whole and not just in parts. It is not only the child who suffers from PBD but the whole family system, particularly the parents of the child with PBD. The behavioural and emotional experiences of the child diagnosed with bipolar disorderaffects everyone in the family, from parents to siblings. PBD is a major life event affecting not only the patient but everyone who cares for him or her (Crowe, Joyce, Luty & Carter, 2011). Healthy child development requires caring parents, supportive teachers, and positive peers. Children reared in disrupted ecologies experience a host of emotional and behavioural problems.

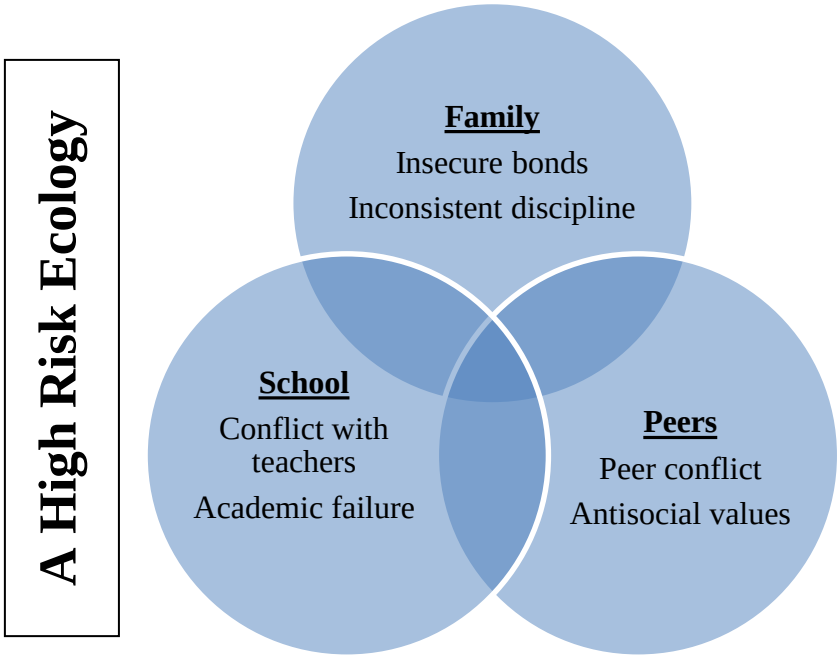
The emotional, physical, and financial pressure of parenting or being raised with a child with PBD, with or without high expressed emotion, also might lead to amplified mental health problems for parents and siblings. These problems could, in a transactional way, act as an additional stressor for the child with PBD (Lofthouse & Fristad, 2004). Miklowitz, Biuckians and Richards (2006) indicates that youth bipolar patients in high expressed emotion families have added symptomatic courses of poor health over 2 years than youth in

low expressed emotion families. Persistent and intermittent stressors are also related to lack of mood improvement while adolescents are on treatment. In order for PBD treatment to be optimal, the patient has to limit and learn to cope with stressful situations in general.

PBD has the ability to hinder the equilibrium the patient has across the ecological spectrum, cutting into familial, relational, educational, and spiritual spheres. The inception of PBD and its subsequent treatments obstruct with key developmental responsibilities of youth, together with personality consolidation, forming thriving loving relations, educational accomplishment, and psychological self-sufficiency (Miklowitz, Biuckians and Richards, 2006).

A child's behaviour reflects transactions within these immediate circles of influence, which can be grounded within a healthy or high-risk ecology (Brendtro, 2006).



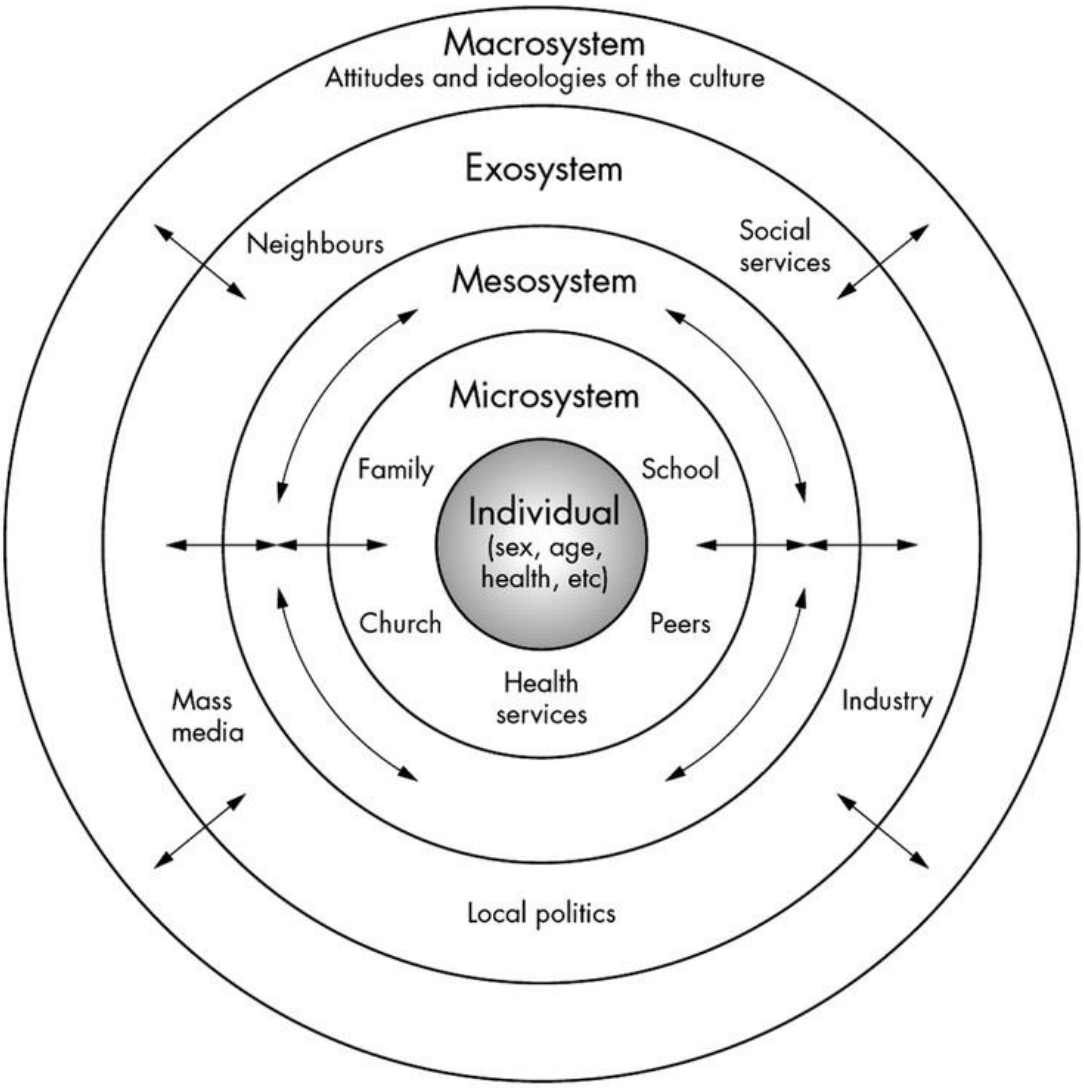


Bronfenbrenner's approach to understanding families is helpful because it is inclusive of all of the systems in which families are enmeshed and because it reflects the dynamic nature of actual family relations (Swick & Williams, 2006). It is vital for professionals to reach out in assisting families and to base this help on understandings that are research based and of value to enhance families (Swick & Williams, 2006). The challenge families experience due to a child who has been diagnosed with PBD calls for a treatment approach that integrates a variety of psychotherapeutic modalities which targets specific problems affecting both children with PBD and their family members across a range of individual, peer, and family domains (West, Henry & Pavuluri, 2007). PBD is on the rise and the effects and aftermath of the illness has severe complications if not manage properly. Parents have to be supported and psycho-educated on effective parenting techniques, as well as how to manage the illness in a more effective way.

A child who has been diagnosed with PBD has to be integrated more efficiently with their bio-ecological system, and it starts at home or within their microsystem and then sprouts out to other systems. There is disorganisation when human beings aren't effectively connected

with their systems and sub-systems. There is disorganisation at two levels when it comes to society: In the first case it affects the structure and role of society and its principal institutions; then it is quickly reflected in the formation and function of individual human beings, predominantly those who are still in the course of development like children and young people. The bottom line of the dilemma lies in the breakdown of the young person to be integrated into his society. Children feel apathetic, detached, and perhaps even antagonistic to the people and conduct in their environment. They want to do their individual thing, but often are not certain what it is or with whom to do it (Bronfenbrenner, 1974). Occupational obligations, community and society engagements, and the shifting physical environment of the home reduce interaction between parents and children. Developments of modern times are working together to isolate children from the rest of society. The disintegration of the extended family, the division between residential and business areas, the collapse of neighbourhoods, zoning ordinances, work-related mobility, child-labour laws, the elimination of the apprentice system, consolidated schools, supermarkets, television, separate patterns of social life for diverse age groups, the working mother, the handing over of child care to specialists — all these symptoms of "progress" function to reduce opportunity and motivation for significant contact between children and people older or younger than themselves (Bronfenbrenner, 1974).

Children today have to compete against many distractions in order to get attention and interaction with their parents. If healthy children without any mood disorders struggle to interact effectively within their systems, how much more will the child with PBD battle to find his or her place within the bio-ecological system? The parents of the child with bipolar disorder are the patient's first line of defence in dealing and managing the illness. It is therefore of the utmost importance that the communication lines within the family are healthy and effective.



Urie Bronfenbrenner's Bio-Ecological Systems Theory

4.2 Bronfenbrenner's Bio-Ecological Systems Theory

Guhn and Goelman (2011) explains Bronfenbrenner's Bio-Ecological Systems Theory as follow: First of all, Bronfenbrenner urges human development researchers to recognise the primary significance of exploring proximal processes, which is the ''primary engines of development'', and which are defined as processes of progressively more complex reciprocal interaction between an active, evolving bio-psychological organism and the persons, objects, and symbols in its immediate external environment. Second, Bronfenbrenner claims that when it comes to human development, the main effects are likely to be found in the interactions and furthermore recommends that the interactions to be examined be theory

based. Third, Bronfenbrenner notes that human development research should use a process-person-context-time model. This means that a research study should (1) simultaneously study those proximal processes, person characteristics, context characteristics, and characteristics pertaining to time (e.g., historical time; the timing and/or sequence of critical events in a person's life) that are considered pertinent for a definite developmental outcome, and should (2) implement research designs and statistical analyses that permit one to look at and discover the theoretically related (statistical) interactions between those multiple factors.

4.2.1 Microsystem

According to Bronfenbrenner (1994), microsystems are sequences of activities, social roles, and interpersonal relationships by a person in a face-to-face setting that is comprised of physical, social, and symbolic features which invite, permit, or inhibit engagements in more complex interactions with the immediate environment. The microsystem is an individual's most immediate environment and includes physical, social and psychological interactions (Swick & Williams, 2006).

Human development takes place throughout processes of increasingly more multifaceted mutual contact between dynamic and developing bio-psychological human beings and the persons, objects, and symbols in its direct environment. In order to be successful, the communication must take place on a reasonably habitual basis over extensive periods of time (Bronfenbrenner, 1994). It is important for the developing child who has been diagnosed with PBD to be able to successfully communicate and interact with his or hers immediate environment. The child's immediate environment may include parent-child and child-child activities, group or solitary play, reading, learning new skills, studying, sport, and performing complex tasks (Bronfenbrenner, 1994).

Essentially, microsystems are the relationships in a family between a person and the rest of the family members or at work between a person and their colleagues. It is possible that

adolescents with PBD are equally affected by life events or stressors inside e.g., parental loss or outside e.g., relationship breakups of the family unit, depending on the balance of risk and protective factors in the person and his or her environment. Life events stress has been found to be a sturdy indicator of time to recovery and the prospect of relapse. The main recurrent stressful events for a person with PBD are all associated with the family e.g., parents undergoing a separation, followed by events involving close friends e.g., fights with a best friend. Chronic family or romantic stressors are correlated with sluggish improvement in depression and mania symptoms independent of age (Miklowitz, Biuckians and Richards, 2006). The microsystem provides the most important resource for supporting the child's growth and development (Belardinelli, 2008). Little research has been done to shed light on the role of family stress in childhood onset BD. It has been noted that low ratings of maternal warmth among children already diagnosed with PBD can lead to earlier manic recurrences following recovery in a 4-year follow-up of manic children (Miklowitz, Biuckians and Richards, 2006).

This study looked at the stress factors at play which impacts the parents at home and at their places of work systems, and how they cope with these stressors. The effect of having a child with emotional and behavioural problems evokes changes in the family system in order to respond adaptively. Focussing on the dynamics of the family system and its interactions could be an effective focus for psychosocial intervention (Belardinelli et al., 2008). Families are notably affected by PBD in an offspring, with elevated levels of emotional, financial, and practical burden and agony. Parents of bipolar patients, young or old, regularly develop depression themselves, and are often candidates for psychiatric treatment (Miklowitz, Biuckians and Richards, 2006).

Family environments can have shielding influences if family members are capable of amending and adapting their patterns of response to fit the developmental needs of an at-risk

or ill child. In dissimilarity, a family that remains excessively rigid in its interactional patterns, but that does not offer outside structure and stability, may reduce the at-risk child's capacity to acquire emotional self-regulation skills and form flourishing additional familial relations (Miklowitz, Biuckians and Richards, 2006). It is imperative to think about the family environment in the therapeutic approach when treating the bipolar child. Working on the dynamics of family connections could be a suitable objective for psychosocial intervention (Belardinelli et al., 2008).

4.2.2 Mesosystem

A mesosytem is theorised as a network of microsystems, and includes the linkages as well as the processes taking place between these microsystems, for example, the relationship between home and work (Bronfenbrenner, 2003). The mesosystem serves as an agent connecting two or more systems in which child, parent and family live, and helps us to move beyond a dyad or two-party relationship (Swick & Williams, 2006).

Due to their children being diagnosed with bipolar disorder, parents may ventilate their stress either at home or at work. Home stress may be ventilated at work or directed at colleagues and work stress may be brought into the home system. Due to parental stress there may be tension between the work and home system.

4.2.3 Exosystem

According to Bronfenbrenner (2003), an exosystem is the linkages and processes taking place between two or more settings of which at least one of these settings does not directly influence the developing person within the immediate setting they live. The relationship between home (parent) and school (child) is an example of an exosystem. The close, intimate system of our relations within families creates our buffer and ‘‘nest’’ for being with each other. However, we all live in systems psychologically and not physically; these are exosystems (Swick & Williams, 2006).

Tension and dynamics exist between the home system, of which the parent is directly a part of, and the child's school of which they are indirectly a part of through their connection with their child. The manner in which the parent deals with their child at home or at the child's school can influence the quality of the ecosystem. The child who is exposed to parental control of attitudes at a young age may contract a schema for the world as an unsafe place in which they are powerless to find the way without help. Unconstructive schemas about the self may obstruct the child's attainment of emotional self-regulation skills like the ability to learn to appropriately articulate negative feelings and the successive quality of family and peer associations (Miklowitz, Biuckians and Richards, 2006).

4.2.4 Macrosystem

According to Bronfenbrenner (2003) the macrosystem comprises the characteristic pattern of micro-, meso-, and exosystems of a given culture or subculture, with reference to the embedded belief systems, bodies of knowledge, material resources, customs, lifestyles, opportunities, hazards, and life course options. Macrosystems are the larger systems of cultural beliefs, societal values, political trends, and community engagement, which act as a powerful source of energy in our lives. The macrosystems we live in influences what, how, when and where we carry out our relationships (Swick & Williams, 2006).

With concern to the macrosystem, one has to take the stressors that parents experience within their culture, religion, finances, and paediatric bipolar support groups into account. The cost of treating their child's bipolar condition may put the parent's finances under pressure, or their religious beliefs may be under tension as parents attempt to understand and find meaning in their struggles. Parents also have to deal with the stigma towards mental illness in the larger social system, which can have adverse effects on the family within their ecological system (Miklowitz, Biuckians and Richards, 2006).

The macrosystem can become a noteworthy source of support for parents who have a child that has been diagnosed with PBD, mainly if the support comes from families with equally affected children. Families are taught how to support their child, for example on obtaining essential resources such as a teaching aid in school or how to secure an individual education plan meeting. Parents and others committed to related foundations can take hands, even around the clock, through web-based support and chat rooms (Pavuluri & Bishop, 2007).

4.2.5 Chronosystem

Bronfenbrenner (2003) describes the chronosystem as the change or consistency over time in the person and/or their environment. These changes or consistencies may relate to socioeconomic, or employment status, or to place of residence of the developing person. The chronosystem entails all of the dynamics of families in the historical context as it occurs within the different systems (Swick & Williams, 2006).

Dealing with career dynamics and balancing the family budget are issues that may further add to the challenges and tensions parents experience when raising a child diagnosed with bipolar disorder.

4.3 Recommendations for Families with PBD from a Bio-Ecological Perspective

Swick & Williams (2006) lists recommendations which can help families and specifically parents with children who have been diagnosed with PBD to reduce the stress that comes with the diagnosis. These recommendations interrelate with the five systems explicated by Bronfenbrenner's bio-ecological perspective. The recommendations are: 1) families have to develop caring and loving microsystems. Caring, loving family relationships can offer a basis where parents and children increase the bonds that allow them to be more receptive in dealing with stress. 2) Families have to become more empowered in their exosystem relations. Parents and children have to create better insight into each other's world:

relationships can be strengthened when parents know their child's experiences at school or in class and when children know more about the parent's life during the day. 3) Cultivate ways families can use mesosytems to help them better respond to the specific stressors they face. Families facing PBD benefit from therapeutic programs which empower them to generate and strengthen coping skills. A PBD support group can also help parents and the family system to better deal with the disorder on a day to day basis. 4) Promote stronger family support strategies and policies in the macrosystem contexts in which families live. The family's culture and religious background and beliefs may assist parents to better cope with PBD. 5) Help families learn from their personal, family, and societal, historical lives. Families have to learn how they can better use their general resources to empower the family.

Psycho-education can also assist families with a child who has been diagnosed with bipolar disorder to become more effectively integrated into their bio-ecological systems. Family psycho-education aims to reinforce the adolescent`s social operation, family relationships, family support, and coping (Sanford et al., 2006).

4.4 Conclusion

PBD does not only affect the patient, but has a direct and indirect influence on the whole ecological system. As a result of the interrelatedness of the ecological system a potential problem or stressor in one system can have an adverse effect in another system or subsystem. Upcoming research should look at how family stress, life stress, external social supports, and mood disorder symptoms evolve over time at diverse levels of development. The dominant effects of genetic risk in the relationship between environmental variables and mood warrant further examination (Miklowitz, Biuckians and Richards, 2006).

The evil and the cure lie not in the victims of alienation, but in the social institutions that produce alienation, and in their failure to be responsive to the most human needs and values of a democratic society (Bronfenbrenner, 1974).

Chapter 5

Research Design & Methodology

5.1 Introduction

A research methodology focuses on the research process and the kind of tools and procedures to be used. It also focuses on the individual steps in the research process and the most objective and unbiased procedures. The point of departure of a research methodology is to collect and sample data (Mouton, 2001). Methodologies denote principles and ways of working as well as specific methods and techniques that will be employed to conduct a proposed study (Levin, 2011). A methodology is the type of study that will be used in order to provide acceptable answers to the research question (Mouton, 2001).

This chapter will focus on the method used to carry out the research, the problem formulation and motivation, primary aims, target population, the procedure, data analysis, reliability and validity, ethical considerations, as well as the implications for psychology will also discussed.

5.2 Method

The reviewer of this study made use of a systematic review. Systematic reviews have developed significantly over the last decade, and currently play a major role in evidence-based practices and are now regarded as a fundamental scientific activity (Tranfield, Denyer & Smart, 2003). The purpose of a systematic review is to evaluate and interpret all available research evidence relevant to a particular question (Glasziou et al., 2001). Systematic reviews are a way to summarise research evidence and can also be understood as a narrative review (Davies & Crombie, 2003). Systematic reviews differ from traditional narrative reviews by adopting a replicable, scientific and transparent process (Tranfield, Denyer &

Smart, 2003). A systematic review focuses on a single question or a set of closely related questions and can be quantitative or qualitative (Montori, Saha, & Clarke, 2004; Jadad, Cook, & Browman, 1997; Cook, Mulrow, & Haynes, 1997). Systematic reviews help the practitioner to summarise large quantities of evidence and to explain the differences among various studies on the same question (Cook et al., 1997). Systematic reviews are based on clearly formulated questions and identify relevant studies. Furthermore, systematic reviews appraise the quality and summarise the evidence of the relevant studies by use of an explicit methodology (Khan et al., 2003). A systematic literature review is a way of identifying, evaluating and interpreting all obtainable research applicable to a meticulous research problem, or subject matter area, or occurrence of importance. Individual studies contributing to a systematic review are called primarystudies; a systematic review is a form of a secondary study (Kitchenham, 2004).

Systematic reviews clarify the essentials within specific research. Systematic reviews are known to be thorough and rigorous in identifying relevant studies, extracting appropriate data, and analysing and interpreting the results, thus making it extremely reliable. Systematic reviews have disciplined protocols and the validity can be trusted (Chalmers & Altman, 1995; Montori et al., 2004; Jadad et al., 1997; Cook et al., 1997). The usage of systematic reviews has increased over the last decade (Cook et al., 1997; Jadad et al., 1997). Systematic reviews help to clarify the essentials in research by means of the rationale, importance, methods, and limitations of the research done. Systematic reviews entail thoroughness, rigour, and perceptiveness in order to extract specific data and to analyse and interpret the results (Chalmers & Altman, 1995). Systematic reviews are scientifically rigorous methods, which summarise the results of primary studies and measure consistency between studies (Torgerson, 2003). The explicit and systematic approach of systematic reviews distinguishes them from other traditional reviews and commentaries (Khan et al., 2003).

The aims of a systematic review according to Torgerson (2003) are:

1) To address a specific, well focused and relevant question. 2) To search, locate and collect the results of the research in a systematic way. 3) To reduce bias. 4) To review the quality of the research in the light of the research question. 5) To synthesise the results of the review in an explicit way. 6) To make the knowledge base more accessible. 7) To identify research opportunities and to place new proposals in the context of existing knowledge. 8) To propose a future research agenda as well as to make recommendations. 9) To present all stages of the review in the final report in order to enable critical appraisal and replication.

Systematic reviews can also be seen as scientific investigations that limit bias and random error, and answer specific questions in depth. The questions that systematic reviews answer can be formulated according to four variables: 1) A specific population and setting (school-going children between the ages of 6-18 years). 2) The condition of interest (paediatric bipolar). 3) An exposure to a test or treatment (pharmacologic management, psycho-therapy), and 4) One or more specific outcomes (depressive events and mortality). Systematic reviews set up boundaries of what is known and not known in order to improve our understanding of inconsistencies in research evidence (Cook et al., 1997).

The advantages of systematic reviews are that they include all the positive and negative studies in a specific field, so that the reader is able to judge whether the evidence supports or refutes a given hypothesis (Torgerson, 2003). By combining data, systematic reviews improve the ability to study the consistency of results as many individual studies are too small to detect modest, but important effects (Glasziou, et al., 2001). Systematic reviews aim to minimise bias through exhaustive literature searches of both published and unpublished studies as well as to provide an audit trail of the reviewer's decisions, procedures and conclusions (Tranfield, Denyer & Smart, 2003).

Some limitations to systematic reviews include that this type of research cannot replace sound clinical reasoning (Cook et al., 1997). Systematic reviews have been criticised as mechanical in nature towards the review process without sufficient regard to the quality and interpretation of the data (Torgerson, 2003). Systematic reviews detect small biases as well as small effects, and may allow small biases to result in an apparent effect (Glasziou, et al., 2001).

The reasons for utilising a systematic review according to Kitchenham (2004) is: 1) to review the existing data relating to a treatment e.g. to sum up the observed support of the benefits and restrictions of an explicit responsive resource. 2) To recognise any needs in present research in order to propose areas for additional enquiry. 3) To present a structure in a bid to suitably place fresh research actions.

5.3 Problem Formulation and Motivation

Research problems implicitly or explicitly embody a research question (Mouton, 2001). This study explored what the effects of paediatric bipolar are on parents of children who have been diagnosed with PBD.

The purpose of this study is to explore and describe paediatric bipolar disorder: the lived experience of parents. Many international studies have been conducted on paediatric bipolar disorder, but few research studies have been conducted on parenting a child diagnosed with bipolar disorder, both on an international and national level. Research in this particular research field in South Africa is scant and there is a great gap that needs to be filled. The responsibility and challenges that the parents of children diagnosed with bipolar disorder face are immense. The stressors experienced by these parents are long-term and are not a phenomenon that disappears overnight. Research has shown that parents of children with bipolar disorder experience feelings of being consumed as a whole, feelings of chaos, and

feelings of being suffocated. For these reasons, parents are constantly looking for resources and other educational material in order to parent with greater effectiveness (Wade, 2006).

This study is structured by means of a systematic review, and will make use of literature on paediatric bipolar disorder (PBD) published between 2000 and 2014. This systematic review collected and reported on previous research and studies in order to create a clear picture and understanding of PBD and the lived experience of parents. Although the systematic review as a research methodology is becoming more popular it is still a fairly new method. There is a clear indication of a need for this study because of the conflicting reports on PBD as well as the need for more South African studies on this topic. The main motivation for this study is to present clear evidence on available research conducted on PBD.

5.4 Primary Aims

The aim of this study is to explore and describe paediatric bipolar disorder: the lived experience of parents by means of a systematic review on published literature between 2000 and 2014.

5.5 Target Population

The data the reviewer sampled was comprised of scholarly journals, books, theses, and computerised databases. In order to prevent limitations, the reviewer used both qualitative and quantitative studies. Given the limited amount of relevant research conducted on this subject in South Africa, the reviewer used both national and international research studies. The reviewer used the following specific criteria in the selection of relevant articles. Firstly, all research data contains information on PBD. Secondly, the age ranges of the participants in the articles are children between the ages of 6 and 18 years of age. Thirdly, articles contain information on both boys and girls. Fourthly, the reviewer only considered studies

done after 1999 and a minimum of fifty reports have been reviewed. Finally, the reviewer also used keywords, titles, subjects, and authors related to the topic during the search process. EBSCOhost is an on-line reference system offering access to a variety of full text and bibliographic databases. EBSCOhost consists of various databases which the reviewer made use of. American Journal of Health Studies feature research articles, monographs, case studies, research briefs, and commentaries on contemporary issues in connection with the promotion of health and wellness since 1995. PsychInfo comprise of citations, summaries of journal articles, book chapters, dissertations, and technical support all within the science of psychology.

PubMed includes more than 20 million citations for biomedical literature from MEDLINE, life science journals, and online books. Some of these citations include full text links from PubMed and publisher web sites.

Google Scholar provides an easy way to search for scholarly literature across many disciplines. Google Scholar includes articles, theses, books, abstracts, and court opinions from academic publishers, professional societies, online repositories, universities, and other web sites.

5.6 Procedure

There are five steps in the systematic review procedure (Davies and Crombie, 2003). These are:

1. Define an appropriate question

This step required a clear statement of the intervention of interest, relevant target groups, as well as the desired outcomes in a clear, unambiguous, and structured way. The details were used to select studies to include in the review.

2. Literature search

Published and unpublished literature was carefully searched. The search covered all the resources in order to ensure an unbiased assessment. The reviewer only focused on leading journals in order to eliminate a possible overoptimistic view of outcomes. All articles contain information on PBD. The reviewer made use of both national and international literature published between 2000 and 2014 and examined forty research reports. These relevant studies were drawn up and are attached as Appendix A.

3. Search according to inclusion and exclusion criteria

The inclusion criteria used were as follow:

(a) The studies needed to be quantitative and qualitative studies on PBD.

(b) Contain information about parenting, including parenting practices, parenting behaviours, and parenting styles.

(c) Focus on school-going children between the ages of 6 to 18 years old.

The exclusion criteria used were as follow:

(a) The studies needed to focus explicitly on school-going children with PBD.

A total of 40 studies were selected to be part of this review. A list of the studies included in this review can be found in Appendix B.

4. Study assessment

After all the studies have been identified each study was assessed by the reviewer regarding eligibility for inclusion, quality, and reported findings. The hypothesis tested, concepts, findings, search design, sample, discussion, and results were recorded. The reviewer systematically assessed the quality of all the relevant studies gathered.

5. Combining the results

A 'bottom line' from the studies was created in order to ensure clinical effectiveness of the intervention. Both qualitative and quantitative methods were used in the study. Notes on all

articles were made after the reviewer had read them and the articles were filed in a folder. Relevant articles were filed separately from articles that did not make the inclusion criteria.

6. Contextualizing findings

Literature findings were discussed in order to put them in context. Quality, heterogeneity, bias and chance, and the applicability of the findings were addressed.

5.7 Data Extraction

Data extraction entails capturing the data extracted from each article, such as the description of the participants, what the objectives of each study were, as well as the emerging themes. Data extraction forms offerstability in a systematic review, and the use of an electronic form allow the researcher to document and extract data in a single step (CRD, 2009). Data extraction was done by the researcher and the concluded data extraction form designed for this purpose is attached as Appendix C.

5.8 Quality Appraisal

The quality appraisal was based on the guidelines set out by Downs and Black (1998), and Law, Stewart, Pollock, Letts, Bosch, & Westmorland (1998). The completed quality appraisal checklist utilised in this systematic review is attached in Appendix E.

5.9 Dissemination of Results

The last step of this review is the writing of the results and conclusions, based on the findings from the data analysis and quality appraisal. The themes and findings are reported in Chapter 6 and brought together in a summarising map of themes found in Appendix E.

5.10 Data Analysis

Data analysis means to search for recurrent patterns, behaviours or ideas. Once a pattern is established it gets interpreted in terms of a social theory or setting in which it occurred.

Data analysis examines, sorts, categorizes, evaluates, compares, synthesizes, and contemplates the data and also reviews raw data (Neuman, 2006). According to Gravetter and Wallnau (2008) data is a measurement or observation. After the studies were selected for inclusion, the reviewer synthesised and combined the results. The reviewer determined if there were any discrepancies or differences in the studies. The reviewer took note of the outcomes of various studies, attempted to classify each study, searched for flaws in research designs, and took note of the samples used and any limitations. Data extraction was done in anapproach which highlights emerging themes. The themes contained on the data extraction form were mapped into broad categories and summarised onto a data summary sheet. The summarising map is attached as Appendix E. A total of six themes emerged as central from the data reviewed. Furthermore, these themes were reported, discussed and summarised in Chapter 6. Since this study is a systematic review, no statistical analysis was conducted. The strategy the reviewer used was an integrative review. This strategy summarised what is known to this point and assessed all the available information.

5.11 Reliability and Validity

Reliability and validity are part of the measurement process and, though not exact, every researcher should strive to achieve optimal reliability and validity. Reliability refers to consistency and suggests that the same thing is repeated under the same or similar conditions. Validity refers to truthfulness, referring to how well an idea fits the actual reality (Neuman, 2006). According to Barker, Pistrang and Elliott (1994) reliability refers to the degree of reproducibility of the measurement, which means that one should get the same results when the same study is repeated in various ways. When a measure is consistent the reliability will be greater and the less error there would be. Reliability is understood as the consistency or steadiness ofmeasures when the measurement process is repeated (Prieto & Delgado, 2010). The types of reliability according to Barker, Pistrang and Elliott (1994) are: 1) Test-retest

reliability, where a measure is administered on two separate occasions without a significant difference between the two different results. 2) Equivalent forms reliability, is an extension of test-retest reliability, where an equivalent or parallel measure is used to the first measure. Again, there should not be a significant difference between the first and parallel measure. 3) Internal consistency, which estimates reliability from the variances of all the items within the measure. 4) Inter-rated reliability, which refers to the reliability of observations made by different coders and how their ratings agree. Reliability was maximised as the researcher meticulously select and extracted the data.

Validity refers to whether a measure measures what it is supposed to measure. Validity is considered to refer to the degree towhich experiential support and theory maintain the understandingof test scores related to a specific use. Validation is a procedure of gathering evidence to support the understanding and use of the scores (Prieto & Delgado, 2010). The different forms of validity according to Barker, Pistrang and Elliott (1994) are: 1) Content validity, refers to whether the items in a measure adequately sample the different aspects of the construct that are specified in its definition. Content validation extended from analysis of the criterion to that of the validity of the predictive tests: a test cannot be deemed valid if the items making it up do not sufficiently sample the content to be assessed (Prieto & Delgado, 2010). 2) Face validity, refers to whether the scale looks right to users involved. 3) Criterion validity, which measures how well the measure correlate with a relevant criterion. 4) Construct validity, refers to whether the pattern of relationships between measures of that construct and measures of other constructs is consistent with theoretical expectations. Validity was ensured as the researcher reviewed all included articles in order to obtain accurate data.

5.12 Ethical Considerations

As this is a review of already published material, there was no risk of harm to any vulnerable groups, and no ethical permission was needed to conduct the study. Given the extensive use of literature, a potential ethical problem might be copyright issues. Nevertheless, the reviewer has only quoted selectively from references and acknowledged all references used. The reviewer was supervised throughout the study and has not imposed a personal value system on the study.

5.13 Implications for Psychology

Even though systematic reviews are popular internationally, there have been relatively few conducted in South Africa. The current study was assembled by means of a systematic review methodology in order to potentially contribute to the body of knowledge in psychology both nationally and internationally.

5.14 Conclusion

The current chapter has reflected an overview of the research methodology which enabled the reviewer to conduct this study. The systematic review procedure has been well indicated and the motivation and aims of the study was clearly stated. Reliability, validity, ethical considerations, as well as the implication for the field of Psychology were discussed. The next chapter will look at the results and discussion of the study.

Chapter 6

Results and Discussion

6.1 Introduction

This study was conducted by means of a systematic review as a methodology as indicated and described in the previous chapter, Chapter 5. The data sourced from primary studies was reviewed systematically and is discussed below.

6.2 Research Output

A total of 40 published articles were used in this review. These articles are congruent to the title and the abstract of this study, and have been screened to warrant their suitability for inclusion in this study. The published articles included in this study examined some aspects of parenting conduct, parenting practices, as well as parental styles related to PBD. The included research articles are listed in Appendix A.

6.3 Systematic Review

A data extraction sheet was used to extract data from articles. The extraction sheet helped centre the investigation of articles by systematically assessing each article in the same way. The data extraction sheet included questions which recognized the search design, objectives, participants, main areas of investigation by the study, as well as up-and-coming themes from the findings. Appendix C provides examples of populated data extraction sheets. The value of each of the studies included in the systematic review was warranted through the quality appraisal checklist provided in Appendix D. Articles were assembled into themes according to the areas of study as well as the results of the studies. The themes contained on the data extraction form were mapped into broad categories and summarised onto a data summary sheet. This summarising map is presented in Appendix E. Overall, 6 themes surfaced as noteworthy from the data reviewed. These themes were: PBD on the rise, the effects of PBD,

Post-PBD diagnosis, managing PBD is a family responsibility, foundations for effective parenting, supporting the parents of a PBD patient. These themes are now explored in more detail.

6.3.1 Emergent Themes

6.3.1.1 PBD on the Rise

PBD had a forty-fold increase between 1994 and 2003, and is escalating even further (Sahling, 2009, Miller & Barnett, 2008, Demeter et al., 2008). PBD has been conventionally seen as a rare diagnosis, however it has been suggested that 30-40% of bipolar adults experience their initial manic episode during adolescence (Robertson et al., 2001). PBD has become a fashionable topic in child and adolescent psychiatry over the past decade, driven by research in the USA (Parry, Furber & Allison, 2009). Cahill et al., (2007) and Chan, Stringaris, Ford (2011) as well as Carr (2009) also noted in their studies that PBD increased noticeably and is increasingly being diagnosed. Bipolar disorder was one of the least recurrent diagnoses recorded among child inpatients in 1996, but was the most common in 2004 (Blader & Carlson, 2007). Research in PBD is currently predominantly driven by the United States of America and there is an increasing need for research to be conducted on home soil, here in South Africa. Although PBD diagnoses are reported in South Africa, the actual number of confirmed PBD cases appears to be rare. It seems that medical healthcare professionals are reluctant to commit to PBD diagnoses and children are initially diagnosed with ADHD, ODD, or CD, which later changes to a diagnosis ofbipolar disorderwhen the child is older than 18 years of age.

The reason for the rapid increase in PBD diagnosis may be credited to the under-diagnosis of the disease in the past (Sahling, 2009, Reddy & Srinath, 2000). Misdiagnosis of bipolar disorder can have a negative impact on the provision of suitable and early intervention, which may result in either no treatment or the use of ineffective and even harmful treatment. As

such, a careful diagnosis of PBD is critical for planning an appropriate and effective treatment plan (Washburn, West & Heil, 2011). Both over- and under diagnosis have severe implications for the child and family, as misdiagnosis can lead to anxiety, helplessness, and hopelessness about the future. Under-diagnosis also may mean pointless suffering, delays in receiving successful treatment, and the recommendation of unproductive and sometimes unsafe treatments. In contrast, over diagnosis can set in motion stigmatisation by self and others, long-term treatment including the use of several medications that often have major side effects, and unsuitable medical, psychological, and community interventions (Lofthouse & Fristad, 2004). Healthcare professionals, especially in South Africa have to become more assertive when it comes to diagnosing or ruling out PBD. There may be many children at risk, who are currently on the wrong treatment and more research in order to assist clinicians is necessary in making the correct diagnosis.

Even though the research is limited, bipolar disorder in children has become the most regular diagnosis in children under age 12 receiving psychiatric admissions (Parry, Furber & Allison, 2009). Between 50% and 67% of adult bipolar patients reported to have experienced illness onset before the age of 18, while between 13% and 28% reported onset before the age of 13 (NIH, 2008).

6.3.1.2 The Effects of PBD

PBD may place young people at risk for social, academic and occupational difficulties including school failure, relationship difficulties including family and peers, legal problems, and problems with career development. Furthermore, PBD sufferers are at increased risk of frequent hospitalisation, substance abuse, and suicide (Carr, 2009). PBD poses significant implications for young people, including, poor social and academic performance (Demeter et al., 2008), psychosocial dysfunction, and increased risk of suicidal behaviour (Chan, Stringaris & Ford, 2011). Children and adolescents with bipolar disorderhave an increased

risk of substance abuse, suicidal ideation, suicide attempts, and completed suicide (Demeter et al., 2008). PBD doesn't only put the patient at risk, but also his or her family. Some parents are already overwhelmed by life and their own needs and problems, and dealing with a PBD child exacerbates the pressures parents are faced with.

When a child is diagnosed with PBD there is a lot of change happening in the familial relationship. A chronic stressor like PBD has a direct effect on a child's psychological wellbeing. The diagnosis of PBD may create tension between the parent and child relationship, and parents need to be mindful of their parenting strategies (Taylor, 2009). Both the parents and the patient have to become aware of the effects PBD has on the family system in order for the family to strengthen their coping mechanisms when dealing with the illness.

6.3.1.3 Post-PBD Diagnosis

In a study of depressed and bipolar pre-adolescent children, six sessions of family psycho education led to better progress in those receiving the program and enhanced adherence to other treatments (Sanford et al., 2006).It is clinically possible that early intervention can decrease morbidity and mortality in children who have been diagnosed with PBD if, greater effort to identify prodromal and early features of PBD is established (Faedda et al., 2004). Childhood bipolar disorder is an existent and severe illness that should be acknowledged and treated as early as possible (Miller, 2007). The phenomenon that children with bipolar disorder are first diagnosed with ADHD, ODD, and CD, results in valuable time and intervention being wasted. Although medication is important for any treatment approach to PBD, psychosocial approaches are critical (Washburn, West & Heil, 2011). With regard to the treatment of PBD, intervention should not only be limited to pharmacological intervention as psychosocial treatments have shown positive results in the treatment of PBD (Demeter, et al., 2008). Sullivan et al (2012) also suggests that the treatment of PBD entails more than just pharmacological intervention, indicating the resolve of familial conflict as a

potential target in the treatment of PBD. Multifamily psycho-education groups (MFPG) and individual family treatment (IFP) have shown to increase the understanding of mood disorders, improve the family environment, and increase mental health service utilisation (Demeter, et al., 2008). PBD is not a death sentence and the patient and their parents have to understand that a good and acceptable quality of life is possible after being diagnosed with it.

6.3.1.4 Managing PBD is a Family Responsibility

Multifamily psycho education groups (MFPG) and individual family treatment (IFP) have shown to increase the understanding of mood disorders, improve the family environment, and increase mental health service utilisation (Demeter, et al., 2008). When a child is diagnosed with PBD there is a lot of change happening in the familial relationship and because these relationships are so important during the developing years it is imperative to look at parenting when it comes to PBD diagnosis. A chronic stressor like PBD has a direct effect on a child's psychological wellbeing and it takes an emotionally strong parent to support and raise such a child.

It is important to keep in mind that it is not only the child who suffers from their diagnosis but the whole family system, especially the parents. The behavioural and emotional experiences of the child diagnosed with bipolar disorderaffects everyone in the family, from parents to siblings. PBD is a major life event affecting not only the patient but everyone who cares for him or her (Crowe, Joyce, Luty & Carter, 2011). Any mental illness diagnosis of a child can be stressful for the parents, even when there is a history of the same disorder in the family. It will be highly beneficial for the family of a child who has been diagnosed with PBD to learn how their child's behaviour affects other family members, and how to make suitable changes to accommodate each other (Sahling, 2009). Family involvement in the management of a patient's psychiatric illness is suggested to be an important part of the treatment plan for both adults and adolescents, and family therapy has been recommended for

use in mood disordered adolescents (Robertson et al., 2001). Bogan (2004) mention five principles in strengthening the family system: 1) *Setting aside a family night*. Planning a regular dedicated evening where the family can interact with each other in a qualitative way. It is important for these specific family times to occur consistently, and should be treated as an important but fun time. 2) *Scheduling regular interaction with the extended family*. A family does not flourish in isolation but is interdependent on other sub-systems and parents need to plan time for the family to build connections with extended family members. The extended family can assist in sharing the load and responsibility in raising and caring for child with PBD. 3) *Establishing unique family memories.* Memories are intentional and effort should be made to plan and execute events and activities which would be conducive to forming new memories together as a family. Reflecting back upon memories can serve as a great source of motivation when the family is going through a difficult and challenging time. 4) *Playing "remember when..."* Thinking back and remembering positive events strengthens the cohesion of the family. 5) *Taking time to listen.* It is important to cultivate and practice an environment where active listening is promoted. The family should have regular family meetings where frustrations can be raised and addressed, as well as where celebrations can take place.

It is therefore important to educate parents about the illness and to improve their understanding about the condition in order to develop healthy parent-child relations (Lindsay et al., 2008).

6.3.1.5 Foundations for Effective Parenting

Parents are potentially the most influential individual's in a child's life and parents have to compete with other humans and technology in shaping their children's minds, values, and beliefs. Parents make use of a combination of different behavioural patterns as parenting is a two-way process whereas the parents as well as the children influence each other's behaviour

(Louw & Louw, 2007). Parents of a child diagnosed with PBD often feel inadequate when it comes to parenting their child (Carbray & McGuinness, 2009). Families of PBD patients report lower levels of family cohesion and adaptability and higher levels of conflict than families of healthy children or population norms (Sullivan et al., 2012). Research has shown that the parenting styles of parents of children with bipolar disorder differ significantly from parents of children without any psychological disorders. Parents of children diagnosed with bipolar disorder tend to be less affectionate, intimate and warm towards their children when compared with the parents of children without the disorder (Nafisa, Patel, Pavuluri, Schenkel, & West, 2008). Paediatric bipolar disorder tends to distort family functioning and adds hostility and conflict to the parent-child relationship (Carbray et al., 2009). Wade (2006) indicates that while parents are still completing their own developmental tasks associated with being a parent, they now also have to help their children with their development and acceptance of their unexpected life situation. He also found that paediatric bipolar is on the increase and diagnosed more frequently at an early age. Paediatric bipolar patients are usually under the direct care of their parents, and appear to be susceptible to variations in the emotional climate of the family (NIH, 2008).

Parenting can't be effective in isolation and needs to be interdependent on the social environment (Bogan, 2004). In order for children to have a healthy development they need a healthy functioning family atmosphere to which they belong and connect (Gfroerer, Kern &Curlette, 2004). When a child is diagnosed with PBD there is a lot of change happening in the familial relationship and because these relationships are so important during the developing years it is imperative to look at parenting when it comes to PBD diagnosis. According to Metsäpelto, Pulkkinen & Poikkeus (2001) a mother's negative emotionality is associated with less optimal qualities of parenting, which includes negative affect during interactions, power contention, and lowered receptiveness and warmth. Parents need to be

aware of external influences that have an immediate and long-term impact on their children (Bogan, 2004).

According to Louw and Louw (2007) there are four dimensions when it comes to familial functioning: 1) *Warmth and nurturance*, children are more securely attached if they have been exposed to warm and nurturing parents. Warm and nurturing parents provide a greater developmental advantage for their children compared to the development of children of cold and detached parents. 2) *Clarity and consistency*, children are less likely to be defiant and noncompliant if they have parents who set clear rules and consistently apply them. 3) *Expectations*, children tend to perform better and have greater self-esteem and altruistic behaviours if they have parents who have high expectations of them. 4) *Communication*, open communication and active listening between parents and their children promotes positive developmental outcomes and create more emotionally and mature children. According to Baumrind (1966) *the authoritative parenting style* is regarded as the most effective approach to child-rearing and is associated with many aspects of competence throughout childhood and adolescence. Parents using this method of parenting facilitate successful social adaptation and development of competence in children (Metsäpelto, Pulkkinen & Poikkeus, 2001). This style involves high acceptance and involvement, adaptive control techniques and the granting of appropriate autonomy.

Parental resilience is necessary for a family who has a child suffering from PBD. Resilience within the family may be seen as a catalyst which enables members within the family unit to rise above hard times and show optimistic outcomes (Bhana & Bachoo, 2011). Bhana and Bachoo (2011) list factors which play a role in the resilient family: 1) *Belief systems and values.* Parents and families who have an optimistic point of view, a strong sense of purpose and meaning, and high levels of personal efficacy are prone to be more resilient than other families. 2) *Self-reliance and self-determination.* Resilient parents and

families have an internal locus of control instead of an external locus of control. They see themselves as liable for their predicament and therefore feel that they have the control to modify their situation. 3) *Spirituality.* The convictions and belief in a higher power provide a considerable coping instrument to overcome challenges. 4) *Parenting styles.* Authoritative parenting is characterised by parental affection, receptiveness, and communication. Usual exercise of this form of parenting adds directly to family consistency, which has been recognized as an additional basis of hardiness among families. 5) *Family cohesion and warmth.* When a family display togetherness and joint efficacy, children may do better in school and are more likely to advance to university and progress as individuals. 6) *Community support.* The accessibility and use of social support and community engagement may serve as a critical resilience dynamic for parents and families.

6.3.1.6 Supporting the Parents of a PBD Patient

Treating PBD should take the frustration and stress of the parents into consideration and parents should be taken along step by step through the treatment process and not be left alone in the dark (Faedda et al., 2004). Any mental illness diagnosis of a child can be stressful for the parents, even when there is a history of the same disorder in the family. Cross-sectional studies consistently support evidence for high levels of parent adolescent conflict, disturbance of affective bonds, and parent adolescent estrangement in families with a depressed teenager (Sanford et al., 2006). Parents have the enormous task of staying emotionally connected with their ill child, while simultaneously maintaining their sense of self and hope. Parents are often left with feelings of guilt, embarrassment, and confusion about their child's elated behaviour (Olson & Pacheco, 2005). There are a significant number of studies indicating that caregivers feel heavily burdened. These burdens are associated with their own health problems, mental health illnesses, and general living costs (Crowe et al., 2011). Literature indicates that the intensity and stress of being a parent of a child diagnosed with bipolar

disorder to be significantly greater than for parents of children without the disorder. Paediatric bipolar disorder tends to distort family functioning and adds hostility and conflict to the parent-child relationship (Carbray et al., 2009). When parents have to deal with a child who has been diagnosed with bipolar disorderstress and its severity increases to a great extent (Louw & Louw, 2007).

Parents can be educated about the illness, provided with guidance in stress management and communication skills, and shown how to steer clear of words and actions that aggravate a child's symptoms. Family therapy and support groups may improve the lives of both parents and children (Miller, 2007).

It is imperative to educate parents about the illness and to improve their understanding about the condition in order to develop healthy parent-child relations (Lindsay et al., 2008). Crowe et al., (2011) strongly suggest that parents need interventions from professionals, helping them to understand and manage the disorder. These interventions may include psycho-education, problem solving, and communication skills. Parents need to be guided through the process of grieving the loss of their healthy child, predominantly true for families in which the child experiences an acute onset of PBD. Psycho-education should not only be seen as a once off event, but rather as a process. The initial event should be supported by periodic booster events in order to minimize the relapse chances of negativity in parents towards their PBP child (Henry, Pavuluri & West, 2007). Psycho-education about PBD can also be a means to alleviate parental stress by actively involving the parents in the treatment of their child. In families who took part in psycho-educational sessions, parents reported better contentment with treatment services than controls, demonstrating that families were optimistic about being dynamically involved in the treatment (Sanford et al., 2006). According to Young and Fristad (2007) psycho- education will improve the cohesion between the bipolar child and his or her parents considerably, which will have a positive

influence on the prognosis of the disorder. Psycho- education treatments merge psychotherapy and education to boost awareness about a problem and encourage skill building. Psycho-educational treatments for PBD and adolescents assist families with information regarding the aetiology, course, prognosis, and treatments for PBD (Young & Fristad, 2007). In a study of depressed and bipolar pre-adolescent children, six sessions of family psycho-education led to better progress in those receiving the program and enhanced adherence to other treatments (Sanford et al., 2006). Psycho-education can be applied in several formats: single workshops for parents; 8-session outpatient multifamily psycho-education groups; and 16-session individual-family psycho-education sessions (Fristad et al., 2003). All empirically evaluated psychosocial treatments for children with BIPOLAR DISORDER are family-based and include a psycho education component (Young & Fristad, 2007). The dynamics of family interactions should be targeted and worked on as a form of psychosocial intervention (Belardinelli et al., 2008).

Taylor, Peplau and Sears (2006) list coping strategies to deal with illness: 1) *Social support and seeking information*. Parents need to educate them on PBD as to what it is, how it presents, and how to effectively deal with it. A support group on PBD may assist the parents to deal more effectively with their child who has been diagnosed with PBD. 2) *Emotional regularity and ventilation.* The demands of coping with PBD from a parent's perspective can be excruciating and parents need to ventilate their frustrations in order to regulate their emotions. 3) *Personal growth.* Parents of children diagnosed with PBD are also individuals with needs and desires which should not be neglected. Therefore it is important for the parents not to stagnate but to cultivate personal growth. 4) *Positive thinking*. Being positive about the process and outcome of a child diagnosed with PBD may reduce stress and enhance coping strategies.

Lofthouse and Fristad (2004) noted ten goals which will support parents in difficult circumstances. 1) Parents' knowledge of mood disorders, symptoms, as well as co-morbid disorders needs to be expanded. 2) Parents' understanding of pharmacological, mental health and community-based (e.g., school) interventions have to increase. 3) Parents' have to learn to distinguish their child from his or her symptoms. 4) Parents, as well as children, have to understand and accept that they are not to blame for the child's symptoms, but that they are responsible for managing the symptoms. 5) Improve manic and depressive symptom management. 6) Increase coping and self-preservation skills. 7) Enhance individual and family communication and problem-solving skills. 8) Improve peer as well as family relations. 9) Increase concordance between care giving adults. 10) Increase social support.

6.4 Discussion

PBD is an illness which affects the whole family and not just the patient. PBD has many risk factors and also tends to be a great risk on a systemic level. Due to the disruptive factors of PBD, it is vital to be cautious of the influences the disorder has on the patient and his or her direct and indirect environment. PBD is far reaching, and has an effect on the whole system. These effects follow the patient and the rest of the family to school, work, social gatherings, church, community, and to other interactions and events and are not only bound to the physical household.

Due to the nature and influence PBD has on so many areas of a patient's life the results of this review will be conceptualised within Bronfenbrenner's (1997) Ecological Systems Theory, as outlined in Chapter 4. Conceptualisation within the ecological systems theory framework may assist in providing further insight into the identified themes.

6.4.1 Microsystem

According to Bronfenbrenner (1994), microsystems are sequences of actions, social roles, and interpersonal interaction by a person in a face-to-face setting that is comprised of

physical, social, and figurative features which encourage, sanction, or restrain engagements in more intricate interactions with the direct environment. The microsystem is an individual's most direct setting and includes physical, social and psychological interactions (Swick & Williams, 2006). When the ecology is in equilibrium, children live in harmony with self and others. But if the ecology is disrupted or in stress, the child experiences conflict and maladjustment (Brendtro, 2006). The development of psychopathology in the parents of a bipolar child is a possibility due to the extra stressors the parents have to deal with. The emergence of psychopathology within the parents may cause the microsystem to become unstable and dysfunctional. Parents of bipolar patients, young or old, regularly develop depression themselves, and are often candidates for psychiatric treatment (Miklowitz, Biuckians and Richards, 2006). With PBD on the rise, it is imperative for the microsystem to be strong in order to deal with the challenges of the illness and its effect. Many of the effects of PBD happen within the microsystem. Some of the effects include relationship difficulties within the family. It takes extra effort from the patient and his or her family to really understand the illness and to manage it effectively. If not dealt with in an effective manner, the structural integrity of the microsystem may be at risk.

The role and quality of parenting when it comes to the bipolar child has emerged as a noteworthy theme in this review. On a micro systemic level a lot of pressure is placed on the system due to PBD. PBD has a direct influence on the warmth and nurturance of parents as they have to deal with more responsibilities compared to the parents of a healthy child. When there is a lack of warmth, nurturing, affection, and family cohesiveness the already under pressure microsystem may be cross-contaminated even more. Ineffective parenting may exacerbate the effects PBD have on the family and may slow down the recovery time and contribute directly to a possible relapse.

Effective parenting with regard to nurturance and warmth towards the bipolar child may alleviate the consequences and effects of the illness and improve the quality of life of the patient, as well as contributing to a positive prognosis. According to Baumrind (1966) the authoritative parenting style is regarded as the most efficient approach to child-rearing and is associated with several aspects of proficiency throughout childhood and adolescence. Parents using this practice of parenting assist successful social adaptation and development of competence in children (Metsäpelto, Pulkkinen & Poikkeus, 2001). This style involves high acceptance and involvement, adaptive control techniques and the granting of appropriate autonomy.

Effective communication between the parents and child is also seen as a significant mediator between the interactions of the microsystem. Communication is not only a verbal action, but comprises all other activities, contact, and tasks, learning and playing. The communication between parents and the bipolar child has to be flexible as the parents have to adapt their patterns of response with their ill child. Rigid communication patterns may lead to emotional dysregulation in the child and may add additional pathology within the microsystem. It is thus important to note that dealing and managing PBD is the responsibility of the family as a whole and not just that of the patient's parents. It is imperative for the parents of the child with PBD to get the best and most effective support and psycho-education in order to cope with the changes within the family as a result of PBD.

The microsystem provides the most important resource for supporting the child's growth and development (Belardinelli, 2008). PBD is not a death sentence, and the microsystem is the ideal and save place for the patient to move and grow beyond the diagnosis of PBD.

6.4.2 Mesosystem

Mesosystems serve as an agent connecting two or more systems in which child, parent and family live, and help us to move beyond a dyad or two-party relationship (Swick & Williams,

2006). The stressors that parents experience raising a child with bipolar aren't only restricted to the home, but have an influence outside the home as well. Parents are taking their stress to work and they are also in contact with the school on a regular basis to monitor their child. Parents constantly have to check their own frustration levels and should be proactive in making the necessary arrangements to vent their concerns and needs. Typically, parents perform most of the care-giving and management of the disorder which can result in feeling fearful, frustrated, hurt and lonely. Parents are overstrained with their individual tasks, obligations, as well as that of their child which brings about grim societal outcomes (Olson & Pacheco, 2005). The bipolar child needs parents who are focused, calm, warm, nurturing, and tolerant. Intolerant parents can exacerbate the already stressful situation. Parents have to deal with their children's illness on a constant basis. If not to work, parents carry the emotional burden of their child to social gatherings, clubs, support groups, and church. The exhaustion and multitaskingexperienced by these parents is lasting and is not an occurrence which disappears quickly. Parents of children with bipolar disorder experience exhaustion, feelings of chaos, and feelings of being smothered (Wade, 2006). Parents take these intense feelings of pain, confusion and fatigue everywhere they go. There is also a possibility of collateral damage where parents can lose their jobs due to the difficulty in leaving their problems at home.

The best way to assist parents in dealing with the effects of PBD is to psycho-educate them on the disorder as well as to strengthen their coping skills. Regular psychotherapy can serve as an ideal platform for parents to vent their frustrations and to be equipped with the necessary tools to live balanced and well-adjusted lives at home, work, and school. Life at home, work, and school has to continue after the diagnosis of PBD. It is important for the family to seek professional help in order for the mesosystem to function optimally. If there is

a lack of harmony and coherence at home the danger is that the discord may also contaminate other systems.

6.4.3 Exosystem

Within the exosystem, linkages and processes occur between two or more settings, but the developing person is only present in one setting. According to Bronfenbrenner (2003) the exosystem is comprised of the connections and processes taking place among two or more settings of which at least one of these settings does not openly manipulate the developing person inside the direct setting they live. The relationship between home (parent) and school (child) is an example of an exosystem. Although parents spend a lot of time managing and monitoring their bipolar child there are settings and times when parents can't do that. Parents have little influence and ability to monitor their child at school while they are at work. With PBD on the rise it may be beneficial for the child's schools and the parents' place of work to be psycho-educated on PBD in order to support the affected family more effectively. Managing PBD is the responsibility of the whole family, but getting added support from the exosystem may alleviate the stress on the micro- and messosytems.

6.4.4 Macrosystem

Macrosystems are the larger systems of cultural beliefs, societal values, political trends, and community engagement, which act as a powerful source of energy in our lives. The macrosystems we live in influence what, how, when and where we carry out our relationships (Swick & Williams, 2006). One has to take the stressors parents experience within their culture, religion, finances, and paediatric bipolar support groups into consideration. The financial implications of treating a childwith bipolar disorder may put the parents' under pressure, or their religious beliefs may be under tension as parents attempt to understand and find sense of their circumstances. Parents also have to deal with the shame toward mental

illness in the larger social system, which can have unfavourable effects on the family within their ecological system (Miklowitz, Biuckians and Richards, 2006). The effects of PBD, cuts through the entire eco-system, affecting finances, spirituality and faith, as well as stigmatisation. Stigmatisation and financial consequences can still exist well after the PBD diagnosis has been made. As some of the effects of PBD are ongoing, it is imperative for the family to seek support and professional help to cope with the illness.

6.4.5 Chronosystem

Bronfenbrenner (2003) describes the chronosystem as the change or consistency over time in the person and/or their environment. The chronosystem entails all of the dynamics of families in the historical context as it occurs within the different systems (Swick & Williams, 2006). Paediatric bipolar disorder is a progressive illness which can be consistent over the entire lifespan of the patient. Between 50% and 67% of adult bipolar patients reported to have experienced illness onset before the age of 18, while between 13% and 28% reported onset before the age of 13 (NIH, 2008).

Another transformation that takes place on the bipolar timeline is the transformation of paediatric bipolar disorder to adult bipolar disorder. Adult bipolar disorder manifests extremes in mood, and lasts up to weeks or months. But with PBD, mood can change hourly (Sahling, 2009). PBD vary from adult bipolar disorder, as PBD manifest itself by longer episodes, rapid cycling, prominent irritability, as well as high rates of co morbid attention-deficit/hyperactivity disorder (ADHD) and anxiety disorders (Carbray & McGuinness, 2009, Aravind & Krishnaram, 2009). The management of PBD also differs from adult bipolar disorder, as PBD is more challenging than adults because of the complexity of developmental issues, which involve interplay of biological, social, psychosexual, cognitive, and personality factors (Robertson et al., 2001). Although bipolar disorderis a severe and debilitating illness it appears that over time it does become more manageable and more stable the older the

patient becomes. Supporting the patient and the family is an ongoing process, and the more responsibility is taken up by every member of the family the more manageable the illness would become.

6.5 Conclusion

In this chapter the results of the systematic review were presented and discussed. The results of the most recent research accentuate the effects PBD has on parenting. Six significant themes were identified, and these themes were: PBD on the rise, the effects of PBD, post-PBD diagnosis, managing PBD is a family responsibility, foundations for effective parenting, and supporting the parents of a PBD patient. These six themes were examined within Bronfenbrenner's ecological systems theory.

In the following chapter the conclusions, limitations and recommendations for future studies will be discussed.

Chapter 7

Conclusions and Recommendations

7.1 Introduction

The purpose of this chapter is to conclude the study, and to relate it to the aim, which was to conduct a systematic review on the lived experience of parents with a PBD child. In order to achieve this, the six themes identified within the research are summarised below. The recommendations and limitations will also be discussed at the end of this chapter.

7.2 Conclusions and Findings

PBD has become a fashionable topic in child and adolescent psychiatry over the past decade, driven by research in the USA (Parry, Furber & Allison, 2009). Bipolar disorder was one of the least recurrent diagnoses recorded among child inpatients in 1996, but was the most common in 2004 (Blader & Carlson, 2007). The reason for the rapid rise in PBD diagnosis may be credited to the under-diagnosisof the disease in the past (Sahling, 2009, Reddy & Srinath, 2000). Both over- and under diagnosis have severe implications for the child and family, as misdiagnosis can lead to anxiety, helplessness, and hopelessness about the future (Lofthouse & Fristad, 2004). Even though the research is limited, bipolar disorderin children has become the most regular diagnosis in children under age 12 receiving psychiatric admissions (Parry, Furber & Allison, 2009). Between 50% and 67% of adult bipolar patients reported to have experienced illness onset before the age of 18, while between 13% and 28% reported onset before the age of 13 (NIH, 2008).

Bipolar disorder is the sixth leading cause of disability in the developing nations and is the mental disorder with the highest suicide rate out of all the mental illnesses (Horn, 2008). A chronic stressor like PBD has a direct effect on a child's psychological wellbeing (Taylor, 2009). PBD sufferers are at increased risk of frequent hospitalisation, substance abuse, and

suicide (Carr, 2009). PBD poses significant implications to young people, including, poor social and academic performance (Demeter et al., 2008), psychosocial dysfunction, and increased risk of suicidal behaviour (Chan, Stringaris & Ford, 2011). Children and adolescents with bipolar disorder have an increased risk of substance abuse, suicidal ideation, suicide attempts, and completed suicide (Demeter et al., 2008). When a child is diagnosed with PBD there is a lot of change happening in the familial relationship (Taylor, 2009). Childhood bipolar disorder is an existent and severe illness that should be acknowledged and treated as early as possible (Miller, 2007). It is clinically possible that early intervention can decrease morbidity and mortality in children who have been diagnosed with PBD if, greater effort to identify prodromal and early features of PBD is established (Faedda et al., 2004). PBD intervention should not only be limited to pharmacological intervention as psychosocial treatments have shown positive results in the treatment of PBD (Demeter, et al., 2008). In a study of depressed and bipolar pre-adolescent children, six sessions of family psycho-education led to better progress in those receiving the program and enhanced adherence to other treatments (Sanford et al., 2006).

It is important to keep in mind that it is not only the child who suffers from their diagnosis, but the whole family system, especially the parents. PBD is a major life event affecting not only the patient, but everyone who cares for him or her (Crowe, Joyce, Luty & Carter, 2011). Family involvement in the management of a patient's psychiatric illness is suggested to be an important part of the treatment plan for both adults and adolescents, and family therapy has been recommended for use in mood disordered adolescents (Robertson et al., 2001). It is therefore important to educate parents about the illness and to improve their understanding about the condition in order to develop healthy parent-child relations (Lindsay et al., 2008). Parents of a child diagnosed with PBD often feel inadequate when it comes to parenting their child (Carbray & McGuinness, 2009). Families of PBD patients report lower levels of family

cohesion and adaptability and higher levels of conflict than families of healthy children or population norms (Sullivan et al., 2012).Paediatric bipolar disorder tends to distort family functioning and adds hostility and conflict to the parent-child relationship (Carbray et al., 2009). In order for children to have a healthy development they need a healthy functioning family atmosphere to which they belong and connect to (Gfroerer, Kern & Curlette, 2004). Parents need to be aware of external influences that have an immediate and long-term impact on their children (Bogan, 2004). According to Baumrind (1966) the authoritative parenting style is regarded as the most effective approach to child-rearing and is associated with many aspects of competence throughout childhood and adolescence. Parents using this method of parenting facilitate successful social adaptation and development of competence in children (Metsäpelto, Pulkkinen & Poikkeus, 2001). This style involves high acceptance and involvement, adaptive control techniques and the granting of appropriate autonomy. Parental resilience is necessary for a family with a child who suffers from PBD. Resilience within the family may be seen as a grouping of family characteristics that enable members within the family unit to rise above hard times and show optimistic outcomes (Bhana & Bachoo, 2011). Literature indicates that the intensity and stress of being a parent of a child diagnosed with bipolar disorder is significantly greater than for parents of children without the disorder. Paediatric bipolar disorder tends to distort family functioning and adds hostility and conflict to the parent-child relationship (Carbray et al., 2009). Family therapy and support groups may improve the lives of both parents and children (Miller, 2007). Crowe et al., (2011) strongly suggest that parents need interventions from professionals, helping them to understand and manage the disorder. These interventions may include psycho-education, problem solving, and communication skills. Psycho-education should not only be seen as a once-off event, but rather as a process (Henry, Pavuluri & West, 2007). Psycho-educational treatments for PBD and adolescents assist families with information regarding the aetiology,

course, prognosis, and treatments for PBD. (Young & Fristad, 2007). All empirically evaluated psychosocial treatments for children with bipolar disorder are family-based and include a psycho-education component (Young & Fristad, 2007).

7.3 Recommendations for Future Research

Bipolar disorder is the sixth leading cause of disability in the developing nations and is the mental disorder with the highest suicide rate out of all the mental illnesses (Horn, 2008). Currently, the research on PBD is driven by the United States of America and little research on the occurrence of PBD in the South African context has been conducted on home soil. Even though the research is scant, PBD in the USA has become the most common diagnosis in children under the age of 12 receiving psychiatric admissions (Parry, Furber & Allison, 2009). Research in this particular research field in South Africa is scant and there is a great gap that needs to be filled. Valuable time goes to waste as the South African child is first diagnosed with ADHD, ODD, or CD. Some children's diagnosis of ADHD, ODD, and CD may be changed to bipolar disorderafter the age of 18. When a PBD child is incorrectly diagnosed the child's development is at risk and his or her medication will also be ineffective. A concern at the moment is that up to one third of children diagnosed with ADHD might actually suffer from bipolar disorder (Youngstrom et al., 2005). A misdiagnosis of PBD will exacerbate the frustration in the parents, which may lead to a breakdown in the parent-child relationship. It is therefore imperative to note that early intervention may contribute to a normal lifestyle and even decrease morbidity and mortality among those struggling with the disorder (Fields & Fristad, 2009). The hypothesis is that there are children with ADHD who are currently treated with a combination of psycho stimulants and mood stabilisers, but who do not carry the diagnosis of PBD. It would be beneficial to conduct a study on PBD, not from the basis of the diagnosis, but rather from a pharmacological perspective, looking at children who are on both a psycho stimulant as well as a mood stabiliser.

There is a need for the development of a more effective and assertive criteria which may assist practitioners in diagnosing PBD. Both the under and over diagnosis of PBD impose a risk to the paediatric patient and his or her bio-ecological system. A healthy balance between over and under diagnosis of PBD may lead to the de-stigmatisation and de-sensitisation of the illness. According to West, Henry and Pavuluri (2007), there remains an unfortunate shortage of research investigating long-term maintenance in pharmacological or psychosocial treatments for PBD. Researchers have yet to explain why this occurrence has become more documented in the last decade. (Lofthouse & Fristad, 2004).

This study, in relation to the content of the lived experience of parents with a PBD child, mostly relates to the microsystem. There is a dearth of literature regarding the meso-, exo-, macro-, and chronosystems concerning the lived experience of parents with a child diagnosed with PBD. It is therefore recommended that future research should focus more on other systems outside of the microsystem in order to contribute to the deeper understanding of how variables from the different systems interact.

7.4 Limitations

Research on PBD in South Africa is scant and this systematic review consists predominantly of international studies. Locating national articles was difficult and future research within a South African perspective would be tremendously valuable. Although meticulous effort was made to apply the methodology rigorously, no guarantee that all possible articles related to the lived experience of parents of a PBD child can be made.

Because this review only utilised articles written in English, a few articles in other languages have been excluded.

Literature concerning the meso-, exo-, macro-, and chronosystems with connection to the lived experience of parents with a PBD child is not freely available. It would be beneficial

for future research to focus more on other systems outside of the microsystem in order to contribute to the deeper understanding on how variables from the different systems interact.

7.5 Concluding Remarks

PBD is a reality and clearly on the rise globally. PBD is a serious illness which has far reaching consequences both for the patient and the family system. PBD is however not a death sentence and the prognosis is good when the illness is detected and treated sooner rather than later. Establishing a criterion which will assist healthcare professionals in diagnosing PBD unambiguously at an early stage is imperative.

The effects of parenting, when it comes to the PBD child, are significant and parents as well as the patient need psycho-education to deal with the illness more proactively. The danger is that nurturance and parental warmth may be contaminated by PBD, which exacerbates the frustration and relational breakdown between the patient and his or her parents. Being a parent with all the care giving, occupational, and social responsibilities can be overwhelming. Adding a child with bipolar disorder to the mix intensifies the pressure on the parents, which can create more pathology within the family system. Parents and paediatric patients need psycho-education to accept, understand, manage, and live in harmony with PBD.

The aim of this study was to explore and describe paediatric bipolar disorder: the lived experience of parents by means of a systematic review. It has been found that PBD is on the increase, which adds additional stressors to the lives of parents with a child who has bipolar disorder. This study indicated that PBD is not a “death sentence”, but that adequate support and psycho-education to the parents may is important to assist and stabilise the ecosystem. One of the best ways to assist the patient is when the whole family system takes responsibility to co-manage the illness.

It is hoped that this review will contribute to the understanding of the lived experience of parents with a PBD child in order to assist the family more effectively.

References

Aravind, V.K., Krishnaram, V.D. (2009). *Pediatric bipolar disorder*. Indian Journal of Psychological Medicine, 31, 88-91.

Banister, P., Burman, E., Parker, I., Taylor, M., Tindall, C. (1994). *Qualitative methods in Psychology: A research guide. Buckingham*: Open University Press.

Barker, C., Pistrang, N., Elliott, R. (1994). *Research methods in clinical and counselling psychology.* West Sussex: John Wiley & Sons Ltd.

Baumrind, D. (1966). *Effects of authoritative parental control on child behaviour. Child Development, 37, 887-907.*

Belardinelli, C., Hatch, J.P., Olvera, R.L., Fonseca, M., Caetano, S.C., Nicoletti, Pliszka, Soares, J.C. (2008). *Family environment patterns in families with bipolar children.* Journal of Affective Disorders, 107, 299-305.

Bhana, A., Bachoo, S. (2011). *The determinants of family resilience among families in low- and middle-income contexts: A systematic literature review.* South African Journal of Psychology, 41, 131-139.

Blader, J.C., Carlson, G.A. (2007). *Increased rates of bipolar disorder diagnoses among US child, adolescent, and adult inpatients, 1996-2004.* Biological Psychiatry, 15, 107-114

Bogan, Y.K.H. (2004). *Parenting in the 21st century: A return to community.* The Negro Educational Review, 55, 129-136.

Bradfield, B.C. (2010). Bipolar mood disorder in children and adolescents: In search of theoretic, therapeutic, and diagnostic clarity. South African Journal of Psychology, 40, 241-249.

Brendtro, L.K. (2006). *The vision of Urie Bronfenbrenner: adults who are crazy about kids.* Reclaiming Children and Youth, 15, 152-166.

Bronfenbrenner, U. (1974). *The origins of alienation.* Scientific American, 231, 53-61.

Bronfenbrenner, U. (1994). *Ecological models of human development*. International Encyclopedia of Education.(Vol. 3, pp 37-43). Retrieved November 21, 2012, from http://www.psy.cmu.edu/~siegler/35bronfebrenner94.pdf

Butcher, J.N., Mineka, S. & Hooley, J.M. (2010).*Abnormal psychology (14th ed.).* Boston: Allyn& Bacon.

Cahill, C.M., Green, M.J., Jairam, R., Malhi, G.S. (2007). *Bipolar disorder in children and adolescents: Obstacles to early diagnosis and future directions.* Early Intervention in Psychiatry, 1, 138-149.

Carbray, J.A. & McGuinness, T.M. (2009). *Paediatric bipolar disorder*. Journal of Psycho Social Nursing, 47, 22-26.

Carr, A. (2009). *Bipolar in young people: Description, assessment and evidence-based treatment.* Developmental Neurorehabilitation, 12, 427-441.

Centre for Reviews and Dissemination (CRD). (2009). Systematic reviews: CRD's guidance for undertaking reviews in health care. Retrieved December 14, 2014 from http://www.york.ac.uk/inst/crd/pdf.htm/

Chan, J., Stringaris, A., Ford, T. (2011). *Bipolar disorder in children and adolescents recognisedin the UK: A clinic-based study.* Child and Adolescent Mental Health, 16, 71-78.

Corey, G., Corey, M.S. (2006). *I never knew I had a choice: Explorations in personal growth (8th ed.).* Belmont: Thomson Brooks/Cole.

Crowe, M., Joyce, P., Luty, S., Carter, J. (2011). *Was it something I did wrong? A qualitative analysis of parental perspectives of their child's bipolar disorder*. Journal of Psychiatric and Mental Health Nursing, 18, 342-348.

Demeter, C.A., Townsend, L.D., Wilson, M., Findling, R.L. (2008).*Current research in child and adolescent bipolar disorder.* Dialogues in Clinical Neuroscience, 10, 215-227.

Faedda G.L., Baldessarini R.J., Glovinsky I.P., Austin N.B. (2004). *Pediatric bipolar disorder: phenomenology and course of illness*. Bipolar disorders, 6, 305–313.

Fields, B.W. & Fristad,M.A. (2009). *Assessment of childhood bipolar disorder*. Clinical Psychology: Science and Practice, 16, 166-181.

Fristad, M.A., Gavazzi, S.M., Mackinaw-Koons, B. (2003). *Family psycho education: An adjunctive intervention for children with bipolar disorder.* Society of Biological Psychiatry, 53, 1000-1008.

Geller, B., Zimerman, B., Williams, M., DelBello, M.P., Frazier, J., Beringer, R.N. (2002). *Phenomenology of prepubertal and early adolescent bipolar disorder: Examples of elated mood, grandiose behaviours, decreased need for sleep, racing thoughts and hyper-sexuality*. Journal of Child and Adolescent Psychopharmacology, 12, 3-9.

Gfroerer, K.P., Kern, R.M., Curlette, W.L. (2004). *Research support for individual psychology's parenting model.* Journal of Individual Psychology, 60, 379-388.

Glasziou, P., Irwig, L., Bain, C., Colditz, G. (2001). *Systematic reviews in health care: A practical guide.* Cambridge: Cambridge University Press.

Horn, N. (2008).*Chaotic highs in desperate lows: the bipolar disorders*. In S.E. Bauman (Ed.), Primary health care psychiatry: A practical guide for Southern Africa. Kenwyn: Juta & Co, Ltd.

Jairam, R., Srinath, S., Girimaji, S.C., Seshadri, S.P. (2004). *A prospective 4-5 year follow-up of juvenile onset bipolar disorder.* Bipolar disorders, 6, 386-394.

Khan, K.S., Kunz, R., Kleijnen, J., Antes, G. (2003). *Five steps to conducting a systematic review.* Journal of the Royal Society of Medicine, 96, 118-121.

Kithchenham, B. (2004). *Procedures for performing systematic reviews.* Keele: Keel University.

Kowatch, R.A., Fristad, M., Birmaher, B., Wagner, K.N., Findling, R.L., Hellander,

M. (2005). *Treatment guidelines for children and adolescents with bipolar disorder: Child. Psychiatric workgroup on bipolar disorder.* American Academy of Child and Adolescent Psychiatry, 44,213-235.

Leahy, R.L. (2007). *Bipolar disorder: Causes, contexts, and treatments.* Journal of Clinical Psychology, 63, 417-424.

Levin, P. (2011). *Excellent dissertations (2nd ed.).* New York: Open University Press.

Lofthouse, N., Fristad, M.A. (2004). *Psychosocial interventions for children with early-onset bipolar spectrum disorder*. Clinical Child and Family Psychology Review, 7, 71-88.

Louw, D., Louw, A. (2007). *Child and adolescent development.* ABC Printers: Bloemfontein.

Mertens, D.M. (2010). *Research and evaluation in education and psychology (3rd ed.).* California: SAGE Publications, Inc.

Metsäpelto, R., Pulkkinen, L., Poikkeus, A. (2001). *A search for parenting style: A cross-situational analysis of parental behaviour.* Genetic, Social, and General Psychology Monographs, 127, 169-192.

Miklowitz, D.J., Biuckians, A., Richards, J.A.(2006). *Early-onset bipolar disorder: A family treatment perspective.* Development and Psychopathology, 18, 1247-1265.

Miller, L., Barnett, S. (2008). *Mood lability and bipolar disorder in children and adolescents.* International Review of Psychiatry, 20, 171-176.

Miller, M.C. (2007). *Bipolar disorder in children: Difficulty to diagnose. important to treat.* Harvard Mental Health Letter, 23, 1-4.

Mouton, J. (2001).*How to succeed in your master's & doctoral studies: A South African guide and resource book.* Pretoria: Van Schaik Publishers.

National Institutes of Health. (2008). *Correlates of high expressed emotion attitudes among parents of bipolar adolescents.* Journal of Clinical Psychology, 64, 438-449.

Neuman, W.L. (2006). *Social research methods: Qualitative and quantitative approaches (6th ed).* Boston: Allyn and Bacon.

Olson, P.M. & Pacheco, M.R. (2005).*Bipolar disorder in school-aged children*. The Journal of School Nursing, 21, 152-158.

Parens, E., Johnston, J. (2010). *Controversies concerning the diagnosis and treatment of bipolar disorder in children.* Child and Adolescent Psychiatry and Mental Health, 4, 1-14.

Parry, P., Furber, G., Allison, S. (2009). *The paediatric bipolar hypothesis: The view from Australia and New Zealand.*Child and Adolescent Mental Health, 14, 140-147.

Pavuluri, M., Bishop, J.R. (2007). *Pediatric bipolar disorder: Translation of research findings to clinical practice.* Current Medical Literature: Psychiatry, 18, 1-12.

Prieto, G., Delgado, A.R. (2010). *Reliability and validity.*Papeles Del Psicólogo, 31, 67-74.

Reddy, J.Y.C., Srinath, S. (2000). *Juvenile bipolar disorder.* ActaPsychiatrica, 102, 162-170.

Robertson, H.A., Kutcher, S.P., Bird, D., Grasswick, L. (2001). *Impact of early onset bipolar disorder on family functioning: Adolescents' perceptions of family dynamics, communication, and problems.* Journal of Affective Disorders, 66, 25-37.

Sahling,D.L. (2009). *Pediatric bipolar disorder: Under diagnosed or fiction?* Ethical Human Psychology and Psychiatry, 11, 215-228).

Sanford, M., Boyle, M., McCleary, L., Miller, J., Steele, M., Duku, E., Offord, D. (2006). *A pilot study of adjunctive family psycho education in adolescent major depression: Feasibility and treatment effect.* American Academy of Child and Adolescent Psychiatry, 45, 386-395.

Schenkel, L.S., West, A.E., Harral, E.M., Patel, N.B., Pavuluri, M.N. (2008). *Parent-child interactions in pediatric bipolar disorder*. Journal of Clinical Psychology, 64, 422-437.

Shenton, A.K. (2004*). Strategies for ensuring trustworthiness in qualitative research*

projects. Education for Information, 22, 63-75.

Stead, G.B. & Watson, M.B. (2006). *Career psychology in the South African context (2nd ed.).* Pretoria: Van Schaik Publishers.

Stokowski, L.A. (2009). *Bipolar disorder and ADHD in children: Confusion and comorbidity*. Topics in Advanced Practice Nursing eJournal, 9, 1-11. Retrieved August 08, 2014, from http://www.medscape.com/viewarticle/711223_print.

Strober, M., Birmaher, B., Ryan, N., Axelson, D., Valeri, S., Leonard, H., Iyengar, S., Gill, M.K., Hunt, J., Keller, M. (2006). *Pediatric bipolar disease: Current and future perspectives for study of its long-term course and treatment.* Bipolar disorders, 8, 311-321.

Sullivan, A.E., Judd, C.M., Axelson, D.A., Miklowitz, D.J. (2012). *Family functioning and the course of adolescent bipolar disorder.* Behavioural Therapies, 43, 837-847.

Sullivan, C. (2010). *Theory and method in qualitative research*. In M.A. Forrester (Ed), Doing qualitative research in psychology: A practical guide. London: SAGE Publications Ltd.

Swick, K.J. & Williams, R.D. (2006). *An analysis of Bronfenbrenner's Bio-ecological perspective for early childhood educators: Implications for working with families experiencing stress.* Early Childhood Education Journal, 33, 371-379.

Taylor, S.E. (2009). *Health psychology (7thed.).* New York: McGraw-Hill Companies, Inc.

Taylor, S.E., Peplau, L.A., Sears, D.O. (2006). *Social psychology (12thed.).* New Jersey: Pearson Education, Inc.

Tesch, R. (1990). *Qualitative research: Analysis types and software tools*. London: Farmer Press.

Torgerson, C. (2003). *Systematic reviews.* London: Continuum International Publishing Group.

Tranfield, D., Denyer, D., Smart, P. (2003). *Towards a methodology for developing evidence-informed management knowledge by means of systematic review.* British Journal of Management, 14, 207-222.

Wade, J. (2006). *"Crying alone with my child: Parenting a school age child diagnosed with bipolar disorder*. Issues in Mental Health Nursing, 27, 885-903.

Washburn,J.J, West, A.E., Heil, J.A. (2011). *Treatment of paediatric bipolar disorder: A review.* Minerva Psichiatrica. 2011, 52, 21–35.

West, A.E., Henry, D.B., Pavuluri, M.N. (2007). *Maintenance model of integrated psychosocial treatment in pediatric bipolar disorder: a pilot feasibility study.* Journal of the AmericanAcademy of Child and Adolescent Psychiatry, 46, 205-212.

West, A.E., Jacobs, R.H., Westerholm, R., Lee, A., Carbray, J., Heidenreich, J., Pavuluri, M.N. (2009). *Child and family-focused cognitive-behavioral therapy for pediatric bipolar disorder: Pilot study of group treatment format*. Journal of the Canadian Academy of child and Adolescent Psychiatry, 18, 239-246.

Young, M.E., Fristad, M.A. (2007). *Evidence based treatments for bipolar disorder in children and adolescents.* Journal of Contempory Psychotherapy, 23, 157-164.

Youngstrom, E.A., Birmaher, B., Findling, L. (2008). *Pediatricbipolar disorder: Validity, phenomenology, and recommendations for diagnosis*. Bipolar disorders, 10, 194-214.

Appendix A

Inclusion Criteria Form

Random Sample

Article Reference No.		Population		Type			Content		Action
	2000+	Children & parents	Children aged 1-18 yrs	Other	Qualitative	Quantitative	Parenting practices, behaviours, or styles associated with PBD	Focus explicitly on children with PBD	Include
1	X		X	X				X	X
2	X	X				X	X		X
3	X		X	X				X	X
4	X		X	X				X	X
5	X		X	X				X	X
6	X		X	X				X	X
7	X		X	X				X	X
8	X		X		X			X	X
9	X	X			X		X		X
10	X		X	X				X	X
11	X		X			X		X	X
12	X		X	X				X	X
13	X	X		X			X		X
14	X		X			X		X	X
15	X		X			X		X	X
16	X		X	X				X	X

Article Reference No.		Population		Type			Content		Action
	2000+	Children & parents	Children aged 1-18 yrs	Other	Qualitative	Quantitative	Parenting practices, behaviours, or styles associated with PBD	Focus explicitly on children with PBD	Include
17	X		X	X				X	X
18	X		X	X				X	X
19	X	X				X	X		X
20	X		X	X				X	X
21	X		X		X			X	X
22	X	X			X		X		X
23	X		X	X				X	X
24	X		X	X				X	X
25	X		X		X			X	X
26	X		X	X				X	X
27	X		X	X				X	X
28	X	X				X	X		X
29	X		X	X				X	X
30	X	X				X	X		X
31	X		X		X		X		X

Article Reference No.		Population		Type			Content		Action
	2000+	Children & parents	Children aged 1-18 yrs	Other	Qualitative	Quantitative	Parenting practices, behaviours, or styles associated with PBD	Focus explicitly on children with PBD	Include
32	X		X	X				X	X
33	X	X				X	X		X
34	X		X	X				X	X
35	X		X	X				X	X
36	X		X	X				X	X
37	X		X	X				X	X
38	X		X	X				X	X
39	X		X		X			X	X
40	X	X			X		X		X

Appendix B

Articles Included in the Systematic Review

Article Nr.	Source Name
1	Aravind, V.K., Krishnaram, V.D. (2009). Pediatricbipolar disorder.
2	Belardinelli, C., Hatch, J.P., Olvera, R.L., Fonseca, M., Caetano, S.C., Nicoletti, Pliszka, Soares, J.C. (2008). Family environment patterns in families with bipolar children.
3	Blader, J.C., Carlson, G.A. (2007). Increased rates of bipolar disorder diagnoses among US child, adolescent, and adult inpatients, 1996-2004.
4	Bradfield, B.C. (2010). Bipolar mood disorder in children and adolescents: In search of theoretic, therapeutic, and diagnostic clarity.
5	Cahill, C.M., Green, M.J., Jairam, R., Malhi, G.S. (2007). Bipolar disorder in children and adolescents: Obstacles to early diagnosis and future directions.
6	Carbray, J.A. & McGuinness, T.M. (2009). Paediatric bipolar disorder.
7	Carr, A. (2009). Bipolar in young people: Description, assessment and evidence-based treatment.
8	Chan, J., Stringaris, A., Ford, T. (2011). Bipolar disorder in children and adolescents recognised in the UK: A clinic-based study.
9	Crowe, M., Joyce, P., Luty, S., Carter, J. (2011). Was it something I did wrong? A qualitative analysis of parental perspectives of their child's bipolar disorder.
10	Demeter, C.A., Townsend, L.D., Wilson, M., Findling, R.L. (2008). Current research in child and adolescent bipolar disorder.
11	Faedda G.L., Baldessarini R.J., Glovinsky I.P., Austin N.B. (2004).

	Pediatricbipolar disorder: phenomenology and course of illness.
12	Fields, B.W. &Fristad,M.A. (2009). Assessment of childhood bipolar disorder.
13	Fristad, M.A., Gavazzi, S.M., Mackinaw-Koons, B. (2003). Family psycho education: An adjunctive intervention for children with bipolar disorder.
14	Geller, B., Zimerman, B., Williams, M., DelBello, M.P., Frazier, J., Beringer, R.N. (2002). Phenomenology of prepubertal and early adolescent bipolar disorder: Examples of elated mood, grandiose behaviours, decreased need for sleep, racing thoughts and hyper-sexuality.
15	Jairam, R., Srinath, S., Girimaji, S.C., Seshadri, S.P. (2004). A prospective 4-5 year follow-up of juvenile onset bipolar disorder.
16	Kowatch, R.A., Fristad, M., Birmaher, B., Wagner, K.N., Findling, R.L., Hellander, M. (2005). Treatment guidelines for children and adolescents with bipolar disorder: Child psychiatric workgroup on bipolar disorder.
17	Leahy, R.L. (2007). Bipolar disorder: Causes, contexts, and treatments.
18	Lofthouse, N., Fristad, M.A. (2004). Psychosocial interventions for children with early-onset bipolar spectrum disorder.
19	Miklowitz, D.J., Biuckians, A., Richards, J.A. (2006). Early-onset bipolar disorder: A family treatment perspective.
20	Miller, L., Barnett, S. (2008). Mood lability and bipolar disorder in children and adolescents.
21	Miller, M.C. (2007). Bipolar disorder in children: Difficulty to diagnose, important to treat.
22	National Institutes of Health. (2008). Correlates of high expressed emotion attitudes among parents of bipolar adolescents.

23	Olson, P.M. & Pacheco, M.R. (2005). Bipolar disorder in school-aged children.
24	Parens, E., Johnston, J. (2010). Controversies concerning the diagnosis and treatment of bipolar disorder in children.
25	Parry, P., Furber, G., Allison, S. (2009). The paediatric bipolar hypothesis: The view from Australia and New Zealand.
26	Pavuluri, M., Bishop, J.R. (2007). Pediatric bipolar disorder: Translation of research findings to clinical practice.
27	Reddy, J.Y.C., Srinath, S. (2000). Juvenile bipolar disorder.
28	Robertson, H.A., Kutcher, S.P., Bird, D., Grasswick, L. (2001). Impact of early onset bipolar disorder on family functioning: Adolescents' perceptions of family dynamics, communication, and problems.
29	Sahling,D.L. (2009). Pediatric bipolar disorder: Under diagnosed or fiction?
30	Sanford, M., Boyle, M., McCleary, L., Miller, J., Steele, M., Duku, E., Offord, D. (2006). A pilot study of adjunctive family psycho education in adolescent major depression: Feasibility and treatment effect.
31	Schenkel, L.S., West, A.E., Harral, E.M., Patel, N.B., Pavuluri, M.N. (2008). Parent-child interactions in pediatric bipolar disorder.
32	Stokowski, L.A. (2009). Bipolar disorder and ADHD in children: Confusion and comorbidity.
33	Strober, M., Birmaher, B., Ryan, N., Axelson, D., Valeri, S., Leonard, H., Iyengar, S., Gill, M.K., Hunt, J., Keller, M. (2006). Pediatric bipolar disease: Current and future perspectives for study of its long-term course and treatment.
34	Sullivan, A.E., Judd, C.M., Axelson, D.A., Miklowitz, D.J. (2012). Family functioning and the course of adolescent bipolar disorder.
35	Wade, J. (2006). "Crying alone with my child": Parenting a school age child

	diagnosed with bipolar disorder.
36	Washburn,J.J, West, A.E., Heil, J.A. (2011). Treatment of paediatric bipolar disorder: A review.
37	West, A.E., Henry, D.B., Pavuluri, M.N. (2007). Maintenance model of integrated psychosocial treatment in pediatric bipolar disorder: a pilot feasibility study.
38	West, A.E., Jacobs, R.H., Westerholm, R., Lee, A., Carbray, J., Heidenreich, J., Pavuluri, M.N. (2009). Child and family-focused cognitive-behavioral therapy for pediatric bipolar disorder: Pilot study of group treatment format.
39	Young, M.E., Fristad, M.A. (2007). Evidence based treatments for bipolar disorder in children and adolescents.
40	Youngstrom, E.A., Birmaher, B., Findling, L. (2008). Pediatric bipolar disorder: Validity, phenomenology, and recommendations for diagnosis.

Appendix C

Data Extraction Sheets

Random Sample

Article No.	2
Author and Year	Belardinelli, C., Hatch, J.P., Olvera, R.L., Fonseca, M., Caetano, S.C., Nicoletti, Pliszka, Soares, J.C. (2008).
Title	Family environment patterns in families with bipolar children.
Research Design	Random Sampling
Objective(s) of the Study	To study the characteristics of family functioning in bipolar children and healthy comparison children.
Participants	36 Families that included a child with BIPOLAR DISORDER versus 29 comparison families that included only healthy children.
Areas Investigated	Current family functioning of families with and without bipolar children.
Emerging Themes	PBD families show dysfunctional patterns related to interactions and personal growth. Distressed family systems should be addressed when treating a child with BIPOLAR DISORDER.

Article No.	7
Author and Year	Carr, A. (2009).
Title	Bipolar in young people: Description, assessment and evidence-based treatment.
Research Design	Literature Review
Objective(s) of the Study	Literature on bipolar children was reviewed to provide an update for clinicians.
Participants	Unknown
Areas Investigated	Clinical features Family characteristics Treatment
Emerging Themes	PBD is a common disorder which persists into adulthood. Treatment includes medication and psychotherapy.

Article No.	9
Author and Year	Crowe, M., Joyce, P., Luty, S., Carter, J. (2011).
Title	Was it something I did wrong? A qualitative analysis of parental perspectives of their child's bipolar disorder.
Research Design	Descriptive statistical and qualitative data
Objective(s) of the Study	The study aim to examine parental views on the onset, symptoms, impact on functioning, and meanings attributed to their child's bipolar disorder.
Participants	85 young people between the ages of 15-34 years of age with bipolar disorder.
Areas Investigated	Identifying parent's awareness of the age of onset of bipolar disorder symptoms in their child. Identifying parents perceptions of the impact of bipolar disorder on their child's development. Identifying the ways parents made sense of their child's development of bipolar disorder.
Emerging Themes	Social relationships Occupational/educational functioning Contributors/precipitants to the development of bipolar disorder

Article No.	14
Author and Year	Geller, B., Zimerman, B., Williams, M., DelBello, M.P., Frazier, J., Beringer, R.N. (2002).
Title	Phenomenology of prepubertal and early adolescent bipolar disorder: Examples of elated mood, grandiose behaviours, decreased need for sleep, racing thoughts and hyper-sexuality.
Research Design	Longitudinal study
Objective(s) of the Study	To investigate prepubertal and early adolescent age equivalents of adult mania behaviours.
Participants	268 (93 prepubertal early adolescent onset bipolar disorder (PEA-BP); 81 ADHD; and 94 normal community controls).
Areas Investigated	Differentiating normal from pathological manic euphoria and differentiating normal expansive play from manic grandiosity.
Emerging Themes	ADHD Over and under diagnosis of PBD

Article No.	15
Author and Year	Jairam, R., Srinath, S., Girimaji, S.C., Seshadri, S.P. (2004).
Title	A prospective 4-5 year follow-up of juvenile onset bipolar disorder.
Research Design	Longitudinal study
Objective(s) of the Study	This study examined the course and outcome of bipolar disorder and assessed the rate and predictors of recovery and relapse in a sample of children.
Participants	25 children (9-16 years) 100% recovered from the index episode.
Areas Investigated	The relapse and recovery rate of PBD.
Emerging Themes	Treatment Recovery Relapse Level of functioning at the end of the study period.

Article No.	22
Author and Year	National Institutes of Health. (2008).
Title	Correlates of high expressed emotion attitudes among parents of bipolar adolescents.
Research Design	Randomised trial
Objective(s) of the Study	This study examined characteristics of bipolar disorder in adolescents that might be associated with high expressed emotion (EE) attitudes among parents.
Participants	44 bipolar adolescents (mean age 14.5 years).
Areas Investigated	Criticism levels and involvement of parents with bipolar adolescents.
Emerging Themes	Effects of PBD on parenthood Family interventions Aetiology of PBD

Article No.	25
Author and Year	Parry, P., Furber, G., Allison, S. (2009).
Title	The paediatric bipolar hypothesis: The view from Australia and New Zealand.
Research Design	Randomised trial
Objective(s) of the Study	To investigate the prevalence of PBD from an Australian and New Zealand perspective.
Participants	199 child and adolescent psychiatrists
Areas Investigated	The high rates and prevalence of PBD as depicted by the USA.
Emerging Themes	Prevalence of PBD Comorbidity Alternative diagnoses

Article No.	28
Author and Year	Robertson, H.A., Kutcher, S.P., Bird, D., Grasswick, L. (2001).
Title	Impact of early onset bipolar disorder on family functioning: Adolescents' perceptions of family dynamics, communication, and problems.
Research Design	Descriptive statistical and qualitative data
Objective(s) of the Study	To investigate the impact of adolescent onset bipolar illness on perceived family functioning in stabilised bipolar 1, unipolar, and normal controls.
Participants	44 bipolar (17 M, 27 FM); 30 unipolar (9 M, 21 FM); 45 controls (19 M, 26 FM)
Areas Investigated	Family adaptability, family cohesion, parent-adolescent communication, social adjustment for children and adolescents.
Emerging Themes	Family support and involvement Family functioning

Article No.	31
Author and Year	Schenkel, L.S., West, A.E., Harral, E.M., Patel, N.B., Pavuluri, M.N. (2008).
Title	Parent-child interactions in pediatricbipolar disorder.
Research Design	Randomised trial
Objective(s) of the Study	To investigate the effects of PBD on parent-child relationships.
Participants	30 children and adolescents with PBD; 30 healthy children and adolescents
Areas Investigated	The warmth, affection, and intimacy of PBD parent-child relations compared to those of healthy parent-child relations.
Emerging Themes	Mother-child relations in PBD Emotional processing abilities of a child with PBD

Article No.	34
Author and Year	Sullivan, A.E., Judd, C.M., Axelson, D.A., Miklowitz, D.J. (2012).
Title	Family functioning and the course of adolescent bipolar disorder.
Research Design	Longitudinal study
Objective(s) of the Study	1) Examined the longitudinal course of parent and adolescent-reported cohesion, adaptability and conflict over a 2-year period. 2) The study predicted that baseline; pre-treatment levels of family functioning would predict the course of mania and depression symptoms among youth over time. 3) The study predicted that longitudinal improvements in family functioning would be correlated with improvements in adolescents' symptoms of depression and mania.
Participants	58 families of adolescents with bipolar disorder (33 FM, 25 M).
Areas Investigated	Parent-adolescent reported cohesion, adaptability and conflict.
Emerging Themes	Familial conflict in PBD Family functioning in PBD

Article No.	37
Author and Year	West, A.E., Henry, D.B., Pavuluri, M.N. (2007).
Title	Maintenance model of integrated psychosocial treatment in paediatric bipolar disorder: a pilot feasibility study.
Research Design	Open trial
Objective(s) of the Study	To conduct a pilot study of amaintenance model of the child- and family-focused cognitive-behavioural therapy program (CFF-CBT), which comprisespsychosocial booster sessions and optimized pharmacotherapy, and to assess whether positive effects seen after theacute phase of treatment could be sustained over time with the use of this model.
Participants	34 (5-17 years old)
Areas Investigated	Maintenance treatment models
Emerging Themes	Addressing the low recovery and high relapse rates of PBD.

Appendix D

Critical Appraisal Sheet

Article No.	Was the purpose of the study clear?	Was relevant background literature reviewed?	Was the study design described?	Was the sample described in detail?	Was there evidence of a clear screening process to arrive at the diagnostic categories of PBD?	Inclusion of validated measures to assess parenting practices, behaviour, or styles?	Was the data collection described in detail?	Were results reported in terms of statistical significance?	Were conclusions, limitations and implications appropriately given?
1	√	√	√	√	√	√	√	√	√
2	√	√		√	√	√	√	√	√
3	√	√	√	√	√	√	√	√	√
4	√	√	√	√	√	√	√	√	√
5	√	√	√	√	√	√	√	√	√
6	√	√	√	√	√	√	√	√	√
7	√	√	√		√	√	√	√	√
8	√	√	√	√	√	√	√	√	√
9	√	√	√	√	√	√	√	√	√
10	√	√	√	√	√	√	√	√	√
11	√	√	√	√	√	√	√	√	√
12	√	√	√	√	√	√	√	√	√
13	√	√	√	√	√	√	√	√	√
14	√	√	√	√	√	√	√	√	√

Article No.	Was the purpose of the study clear?	Was relevant background literature reviewed?	Was the study design described?	Was the sample described in detail?	Was there evidence of a clear screening process to arrive at the diagnostic categories of PBD?	Inclusion of validated measures to assess parenting practices, behaviour, or styles?	Was the data collection described in detail?	Were results reported in terms of statistical significance?	Were conclusions, limitations and implications appropriately given?
15	√	√	√	√	√	√	√	√	√
16	√	√	√	√	√	√	√	√	√
17	√	√	√	√	√	√	√	√	√
18	√	√	√	√	√	√	√	√	√
19	√	√	√	√	√	√	√	√	√
20	√	√	√	√	√	√	√	√	√
21	√	√	√	√	√	√	√	√	√
22	√	√		√	√	√	√	√	√
23	√	√	√	√	√	√	√	√	√
24	√	√	√	√	√	√	√	√	√
25	√	√		√	√	√	√	√	√
26	√	√	√	√	√	√	√	√	√
27	√	√	√	√	√	√	√	√	√
28	√	√	√	√	√	√	√	√	√

Article No.	Was the purpose of the study clear?	Was relevant background literature reviewed?	Was the study design described?	Was the sample described in detail?	Was there evidence of a clear screening process to arrive at the diagnostic categories of PBD?	Inclusion of validated measures to assess parenting practices, behaviour, or styles?	Was the data collection described in detail?	Were results reported in terms of statistical significance?	Were conclusions, limitations and implications appropriately given?
29	√	√	√	√	√	√	√	√	√
30	√	√	√	√	√	√	√	√	√
31	√	√		√	√	√	√	√	√
32	√	√	√	√	√	√	√	√	√
33	√	√	√	√	√	√	√	√	√
34	√	√	√	√	√	√	√	√	√
35	√	√	√	√	√	√	√	√	√
36	√	√	√	√	√	√	√	√	√
37	√	√	√	√	√	√	√	√	√
38	√	√	√	√	√	√	√	√	√
39	√	√	√	√	√	√	√	√	√
40	√	√	√	√	√	√	√	√	√

Appendix E

Summarising Map

Article ref. no.	Author and Title of articles included in the review	Themes					
		PBD on the rise	The effects of PBD	Post-PBD diagnosis	Managing PBD is a family responsibility	Foundations for effective parenting	Supporting the parents of a PBD patient
1	Aravind, V.K., Krishnaram, V.D. (2009). Pediatric bipolar disorder.		X		X		
2	Belardinelli, C., Hatch, J.P., Olvera, R.L., Fonseca, M., Caetano, S.C., Nicoletti, Pliszka, Soares, J.C. (2008). Family environment patterns in families with bipolar children.		X		X		
3	Blader, J.C., Carlson, G.A. (2007). Increased rates of bipolar disorder diagnoses among US child, adolescent, and adult inpatients, 1996-2004.		X		X		
4	Bradfield, B.C. (2010). Bipolar mood disorder in children and adolescents: In search of theoretic, therapeutic, and diagnostic clarity.	X	X	X	X		
5	Cahill, C.M., Green, M.J., Jairam, R., Malhi, G.S. (2007). Bipolar disorder in children and adolescents: Obstacles to early diagnosis and future directions.	X	X		X		
6	Carbray, J.A. & McGuinness, T.M. (2009). Peadiatric bipolar disorder.	X					X
7	Carr, A. (2009). Bipolar in young people: Description, assessment and evidence-based treatment.	X				X	X
8	Chan, J., Stringaris, A., Ford, T. (2011). Bipolar disorder in children and adolescents recognised in the UK: A clinic-based study.	X	X				X

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		PBD on the rise	The effects of PBD	Post-PBD diagnosis	Managing PBD is a family responsibility	Foundations for effective parenting	Supporting the parents of a PBD patient
9	Crowe, M., Joyce, P., Luty, S., Carter, J. (2011). Was it something I did wrong? A qualitative analysis of parental perspectives of their child's bipolar disorder.		X				X
10	Demeter, C.A., Townsend, L.D., Wilson, M., Findling, R.L. (2008). Current research in child and adolescent bipolar disorder.	X	X				X
11	Faedda G.L., Baldessarini R.J., Glovinsky I.P., Austin N.B. (2004). Pediatric bipolar disorder: phenomenology and course of illness.	X			X		X
12	Fields, B.W. & Fristad,M.A. (2009). Assessment of childhood bipolar disorder.	X			X		
13	Fristad, M.A., Gavazzi, S.M., Mackinaw-Koons, B. (2003). Family psycho education: An adjunctive intervention for children with bipolar disorder.	X	X	X	X		X
14	Geller, B., Zimerman, B., Williams, M., DelBello, M.P., Frazier, J., Beringer, R.N. (2002). Phenomenology of prepubertal and early adolescent bipolar disorder: Examples of elated mood, grandiose behaviours, decreased need for sleep, racing thoughts and hyper-sexuality.		X	X			
15	Jairam, R., Srinath, S., Girimaji, S.C., Seshadri, S.P. (2004). A prospective 4-5 year follow-up of juvenile onset bipolar disorder.			X			

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		PBD on the rise	The effects of PBD	Post-PBD diagnosis	Managing PBD is a family responsibility	Foundations for effective parenting	Supporting the parents of a PBD patient
16	Kowatch, R.A., Fristad, M., Birmaher, B., Wagner, K.N., Findling, R.L., Hellander, M. (2005). Treatment guidelines for children and adolescents with bipolar disorder: Child psychiatric workgroup on bipolar disorder.			X	X		X
17	Leahy, R.L. (2007). Bipolar disorder: Causes, contexts, and treatments.		X				X
18	Lofthouse, N., Fristad, M.A. (2004). Psychosocial interventions for children with early-onset bipolar spectrum disorder.		X		X		X
19	Miklowitz, D.J., Biuckians, A., Richards, J.A. (2006). Early-onset bipolar disorder: A family treatment perspective.	X	X		X	X	X
20	Miller, L., Barnett, S. (2008). Mood lability and bipolar disorder in children and adolescents.	X		X			
21	Miller, M.C. (2007). Bipolar disorder in children: Difficulty to diagnose, important to treat.			X			X
22	National Institutes of Health. (2008). Correlates of high expressed emotion attitudes among parents of bipolar adolescents.		X		X	X	X

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		PBD on the rise	The effects of PBD	Post-PBD diagnosis	Managing PBD is a family responsibility	Foundations for effective parenting	Supporting the parents of a PBD patient
23	Olson, P.M. & Pacheco, M.R. (2005). Bipolar disorder in school-aged children.		X				X
24	Parens, E., Johnston, J. (2010). Controversies concerning the diagnosis and treatment of bipolar disorder in children.	X					X
25	Parry, P., Furber, G., Allison, S. (2009). The paediatric bipolar hypothesis: The view from Australia and New Zealand.	X					
26	Pavuluri, M., Bishop, J.R. (2007). Pediatric bipolar disorder: Translation of research findings to clinical practice.		X	X	X		
27	Reddy, J.Y.C., Srinath, S. (2000). Juvenile bipolar disorder.	X	X				
28	Robertson, H.A., Kutcher, S.P., Bird, D., Grasswick, L. (2001). Impact of early onset bipolar disorder on family functioning: Adolescents' perceptions of family dynamics, communication, and problems.		X		X	X	X
29	Sahling,D.L. (2009). Pediatric bipolar disorder: Under diagnosed or fiction?	X					X
30	Sanford, M., Boyle, M., McCleary, L., Miller, J., Steele, M., Duku, E., Offord, D. (2006). A pilot study of adjunctive family psycho education in adolescent major depression: Feasibility and treatment effect.				X		X

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		PBD on the rise	The effects of PBD	Post-PBD diagnosis	Managing PBD is a family responsibility	Foundations for effective parenting	Supporting the parents of a PBD patient
31	Schenkel, L.S., West, A.E., Harral, E.M., Patel, N.B., Pavuluri, M.N. (2008). Parent-child interactions in pediatric bipolar disorder.		X			X	X
32	Stokowski, L.A. (2009). Bipolar disorder and ADHD in children: Confusion and comorbidity.		X		X		
33	Strober, M., Birmaher, B., Ryan, N., Axelson, D., Valeri, S., Leonard, H., Iyengar, S., Gill, M.K., Hunt, J., Keller, M. (2006). Pediatric bipolar disease: Current and future perspectives for study of its long-term course and treatment.		X				
34	Sullivan, A.E., Judd, C.M., Axelson, D.A., Miklowitz, D.J. (2012). Family functioning and the course of adolescent bipolar disorder.		X				X
35	Wade, J. (2006). "Crying alone with my child": Parenting a school age child diagnosed with bipolar disorder.	X	X			X	X
36	Washburn,J.J, West, A.E., Heil, J.A. (2011). Treatment of paediatric bipolar disorder: A review.			X			X
37	West, A.E., Henry, D.B., Pavuluri, M.N. (2007). Maintenance model of integrated psychosocial treatment in pediatric bipolar disorder: a pilot feasibility study.		X		X		X
38	West, A.E., Jacobs, R.H., Westerholm, R., Lee, A., Carbray, J., Heidenreich, J., Pavuluri, M.N. (2009). Child and family-focused cognitive-		X				X

	behavioral therapy for pediatric bipolar disorder: Pilot study of group treatment format.						

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		PBD on the rise	The effects of PBD	Post-PBD diagnosis	Managing PBD is a family responsibility	Foundations for effective parenting	Supporting the parents of a PBD patient
39	Young, M.E., Fristad, M.A. (2007). Evidence based treatments for bipolar disorder in children and adolescents.			X			X
40	Youngstrom, E.A., Birmaher, B., Findling, L. (2008). Pediatric bipolar disorder: Validity, phenomenology, and recommendations for diagnosis.		X		X		