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Decision Making and Pediatric Bipolar Disorder Assessment/Diagnosis: A Phenomenographic Study

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Abstract

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MA, Goddard College, 2006

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Dissertation Submitted in Partial Fulfillment

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Abstract

Prior to the 1990s, bipolar disorder, a behavioral disorder characterized by severe mood fluctuations, was not considered an suitable diagnosis for children. However, in recent decades, an increase in pediatric bipolar disorder (PBD) diagnosis has occurred in the U.S. The purpose of this study was to explore the perceptions and lived experiences of licensed mental health clinicians regarding their decision-making processes used during assessment and diagnosis of PBD. This phenomenographic study utilized individual, semi-structured interviews to explore the perceptions and lived experiences of 14 licensed clinicians in the Commonwealth of Massachusetts who assess and diagnose PBD. Data were collected with a 7-question face to face interview. Using NVivo 10 software several key phrases and words were identified, coded, and used to locate patterns, themes, and concepts. Data analysis revealed that significant issues related to PBD assessment and diagnosis may exist, including: inconsistencies in assessment/diagnostic processes; reticence to diagnose the disorder; failure to use available assessment instruments; a lack of attention to comorbidities; and trouble differentiating between PBD symptoms and other issues, such as trauma or dysfunctional family dynamics. Given the reluctance of these mental health professionals to diagnose PBD, implications for social change underscore the important role of education, training, and ongoing clinical supervision to help other mental health professionals accurately assess and diagnose PBD. Recommendations emanating from study findings suggest further research on PBD assessment and diagnosis to help professionals develop more effective diagnostic frameworks for clinical training and practice.

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Chapter 1: Introduction to the Study

Introduction

Diagnosing mental health disorders in children and adolescents can be a controversial and difficult process. Specifically, the assessment and diagnosis of pediatric bipolar disorder (PBD) has been a contentious issue since its inception in the early 1990s. Prior to then, bipolar disorder (BD) was rarely considered a suitable diagnosis for children and adolescents (Kaplan, 2011). In fact, it was not until the mid-1990s, when several leading researchers published studies claiming that BD was a valid diagnosis for children and adolescents (Baldessarini, Lipschitz, Faedda, Suppes, & Tondo, 1995; Geller & Luby, 1997) that the wave of PBD diagnosis began. Between 1995 and 2003 alone, the number of PBD cases in the United States increased from 20,000 to 800,000 (Moreno et al., 2007).

Researchers have investigated potential reasons for the increase in PBD cases (Achenbach, McConaughy, & Howell, 1987; Antoniadis, Samakouri, & Livaditis, 2012; Bradfield, 2010; Corry et al., 2013; Diler et al., 2009; Faedda et al., 2004; Jenkins et al., 2011; Maniscalco & Hamrin, 2008; Marchand, Lee, Johnson, Gale, & Thatcher, 2013; McDougall, 2009; Mitchell et al., 2013; Scribante, 2009; Serrano, Ezpeleta, & Castro-Fornieles, 2013; Youngstrom, 2009). However, exploration into the decision-making processes involved during PBD assessment and diagnosis had not been conducted. While medical decision-making processes have received increased attention (Groopman, 2007), Bhugra, Easter, Mallaris, and Gupta (2012) noted, "understanding of the processes underlying psychiatric decision making remains limited" (p. 403).

One reason for the limited understanding of these decision-making processes may be due to the relatively few objective diagnostic tools available to mental health clinicians (Bhugra et al., 2012). Within the field of mental health, the only universal tool available for diagnosing mental illnesses is the *Diagnostic and Statistical Manual of Mental Disorders* (DSM IV-TR; American Psychiatric Association [APA], 2000). The DSM IV-TR is the fourth edition of the manual, intended to help clinicians identify adult mental health disorders. The spectrum of diagnostic criteria outlined in the DSM-IV-TR pertains to symptoms and functions as assessed in adults. In 2013, the APA (2013) published an updated version of the manual, the DSM-V, which attempted to incorporate disorder criteria and experiences of children. However, the DSM-V had not been adopted for mental health assessments at the time of this research, and uncertainty remained regarding the timeframe of its integration. Therefore, for the purposes of this study, the DSM IV-TR was considered the main evaluative tool used by mental health clinicians.

A significant challenge with mental health assessment in children and adolescents is the DSM-IV-TR's lack of child-specific criteria. Clinical diagnostic criteria intended for adults may not be appropriate for children. (Hamrin & Lennaco, 2010). Another issue is that many licensed mental health clinicians who work with child and adolescent populations have no specific training on PBD diagnosis (Kaplan, 2011). Because clinical decision-making typically relies on established diagnostic criteria and training, the absence of these factors leaves much of PBD assessment to clinicians' subjective decision-making processes. Exploring these processes could shed light on PBD diagnostics and lead to improvements in the assessment and diagnosis of PBD.

This chapter serves as an introduction to the present study. A brief background of relevant research is followed by the study's problem statement. The purpose statement and research questions provide the study's foundation. A theoretical framework aligns the study with established theories and research. Next, the nature of the study, relevant definitions, assumptions, and scope are discussed. The chapter concludes with limitations, study significance, and a brief summary.

Prior to this study, little was known about mental health professionals' perspectives on the increase in PBD diagnoses, and I was unable to locate any studies that investigated clinicians' decision-making processes. Consequently, it was necessary to investigate the lived experiences of clinicians who assess and diagnose PBD to gain a deeper understanding of these processes. If the decision-making processes involved during PBD assessment and diagnosis indicated potential errors, the imperative for more accurate assessment tools, better evaluative criteria, and more thorough training may be better understood. Findings from this study are critical to the prevention of unnecessary treatment in children who do not have PBD or who are struggling with completely different disorders. To understand occurrences at the diagnostic level, research into the clinical assessment and diagnosis of PBD is essential.

Background

PBD diagnoses have significantly increased in recent decades (Blader & Carlson, 2007; Moreno et al., 2007). Although there may be multiple explanations for the rise, this study investigated how a convenience sample of licensed mental health clinicians in the Commonwealth of Massachusetts conceptualized the decision-making processes involved

in assessment and diagnosis. I explored clinicians' perceptions and lived experiences of the clinical decision-making process, including evidence gathered and instruments used.

Problem Statement

The increase of PBD cases in the United States signals possible issues with the methods used to assess and diagnose the disorder. A significant area of concern is whether the increase is due to an actual rise in symptom presentation, or whether some children are misdiagnosed. Not only can misdiagnosis result in unnecessary treatment, but it also pins children with a mental health label that can have adverse effects on psychosocial function. It is important to understand the decision-making processes by which licensed mental health professionals assess and diagnose children and adolescents with PBD, as their perceptions of the disorder, treatment options, lived experiences with patients, and educations all play a profound role in individual diagnostic decisions. Although clinical decision-making has been studied quantitatively, few researchers have used open-ended interviews. Further, none of the existing studies specifically investigated PBD assessment. Since there is no designated, objective tool for assessing and diagnosing PBD, it is necessary to explore the decision-making processes that clinicians employ to better understand the potential for diagnostic errors.

Purpose of the Study

The purpose of this phenomenographic study was to explore the perceptions and lived experiences of licensed mental health clinicians related to decision-making processes used during PBD assessment and diagnosis. Data for the study were obtained through in-depth, semistructured interviews. Participants included 14 licensed mental health clinicians in current practice with children and adolescents in the Commonwealth

of Massachusetts. I explored clinicians' lived experiences of the decision-making processes used during PBD assessment and diagnosis. This qualitative investigation provides direction for future empirical studies on clinicians' decision-making processes to determine if a need for more objective, diagnostic PBD criteria exists. As noted by Bhugra et al. (2012), such a phenomenographic study may also "provide a meaningful framework of decision making in practice with appropriate education and training" (p. 404).

Research Question

The following research question guided the study:

What are the perceptions and lived experiences of the decision-making processes employed by licensed mental health clinicians in the Commonwealth of Massachusetts regarding the assessment and diagnosis of pediatric bipolar disorder?

Theoretical Framework

The dual process model of decision-making (Croskerry, 2009) provided the theoretical framework for the present study. This model dictates that there are two processes involved in decision-making: Type 1 (intuitive) and Type 2 (analytical). Intuitive processes involve context and are affected by ambient conditions, the difficulty and ambiguity of tasks, and affective state. Analytical processes are affected by intellect, education, critical thinking skills, training, rationality, logical competence, and feedback. Often, both types of processes are involved in clinical decision-making, and both are affected by surrounding circumstances.

Pattern recognition serves as the main feature of the dual process model. If a clinician recognizes a condition, one process (either intuitive or analytical) will prevail.

However, if a condition is not recognized, analytical processes will dominate. In this way, a combination of intuitive and analytical processes are represented, which is reflective of the various factors (i.e., education, training, professional history, experience with PBD, diagnostic instruments, professional opinions of peers, etc.) that come into play during the assessment and diagnosis of PBD. The dual process model provided a lens for evaluating decision-making, which considers the influential factors found in clinical settings.

Nature of the Study

The nature of this study was qualitative phenomenography. This tradition was selected because it aims to help researchers understand the variations in perceptions of a phenomenon (Patton, 2002), which made it strong fit for the research question. As opposed to phenemonology, phenomenography places a greater emphasis on the collective meaning of phenomena (Barnard, McCosker, & Gerber, 1999). Because clinical decisions are not reached in isolation, a methodology that considers a collective perspective was appropriate for this research topic.

The study sample consisted of 14 licensed mental health clinicians who currently worked in the child/adolescent mental health field. I posted a notice to solicit participants on an intranet used by clinicians, to which I had access. I then selected 15 participants from the respondents, to whom I later provided with full study details. Only 14 individuals followed through with participation. All participants signed an informed consent form and had the opportunity to back out of the study at any time.

Preliminary interview questions were tested for face validity via a panel of subject matter experts. Feedback from the panel indicated that no modifications were necessary.

The validity of the interview protocol was assessed using Chenail's (2011) method of *interviewing the investigator*. This technique helps researchers create protocols, revise questions with possible biases, and address potential IRB concerns prior to submissions.

Interviews were held at participants' location of business. During interviews, each participant was asked a series of semistructured interview questions related to his or her perceptions and lived experiences of the decision-making processes used during the assessment and diagnosis of PBD. All interviews were recorded and transcribed. I employed phenomenographic methodology to review transcriptions for emerging themes. Walden University's Institutional Review Board (IRB) reviewed the research study for approval. Further detail on the method and design of the research is described in Chapter 3 of this dissertation. The results of the data analysis is presented in Chapter 4.

Definitions

For the purposes of the current study, select terms are defined as follows:

Assessment: The process of examining and evaluating information regarding client's reports of symptoms. It is generally focused on presenting symptoms, history of presenting symptoms, medical/physical history, and any other information used to determine cause/effect of presenting symptoms (Mendenhall, Fristad, & Early 2009).

Affect: The external expression of emotion attached to ideas or mental representations of objects (Mendenhall et al., 2009).

Antidepressants: Medications used to prevent or relieve depressive mood symptoms (Pavuluri, West, Hill, Jindal, & Sweeney, 2009).

Antipsychotics: Medications used to treat psychotic disorders. Antipsychotics are a chemically diverse but pharmacologically similar class of drugs (Pavuluri et al., 2009).

Behavior modification: A form of treatment focused on decreasing negative behaviors through positive/negative reinforcements. In addition, exploration of antecedence to marked behaviors is thoroughly explored, examined, and tracked (Riedel, Heiby, & Kopetskie, 2001).

Bipolar disorder NOS (not otherwise specified): A mental health disorder marked by a cycle of mania then episodes of depression (Williams, O'Connor, Eder, & Whitlock, 2009).

Bipolar I: The more severe form of BD with symptoms that include the cycling of mania and depression (Youngstrom, 2009).

Bipolar II: A less severe form of BD that includes the cycling of hypomania and depression (Youngstrom, 2009).

Cognitive behavioral therapy (CBT): A form of psychotherapy that seeks to modify behavior by manipulating the environment to change a client's response (Moreno et al., 2007).

Cyclothymic disorder: A mood disorder characterized by alternating cycles of hypomanic and depressive periods with symptoms like those of manic and major depressive episodes, but of lesser severity (Williams et al., 2009).

Depressive disorder: A mood disorder characterized by reports of sadness, apathy, interruption in sleep/appetite, feelings of hopelessness (Williams et al., 2009).

Licensed independent clinical social worker (LICSW): An individual who has completed a masters in social work degree and accrued designated clinical hours postgraduate in a direct care setting (National Association of Social Workers, 2014).

Licensed marriage and family counselor (LMFT): An individual who has completed a masters in marriage and family degree and accrued designated clinical hours postgraduate in a direct care setting (American Association for Marriage and Family Therapy, 2014).

Licensed Mental Health Clinician (LMHC): An individual who has completed masters in psychology and counseling and accrued designated clinical hours postgraduate in a direct care setting (Massachusetts Mental Health Counselors Association, 2014).

Mental health diagnosis: Psychological disorder, also known as a mental disorder, is a pattern of behavioral or psychological symptoms that impact multiple life areas and/or create distress for the person experiencing these symptoms (Moreno et al., 2007).

Major depressive disorder (MDD): A mood disorder characterized by the occurrence of one or more major depressive episodes and the absence of any history of manic, mixed, or hypomanic episodes (Williams et al., 2009).

Mania: A state of abnormally elevated energy levels marked at times by hyper sexuality, compulsive spending of money, and can present with narcissistic tendencies. It is noted as being the opposite state of depression (Williams et al., 2009).

Mood disorder: Marked by chronic disruption of mood (Williams et al., 2009).

Mood stabilizers: Medications focusing on the stabilization of intense and sustained mood shifts (Pavuluri et al., 2009).

Psychiatrist: A physician who specializes in psychiatry (Pavuluri et al., 2009).

Psychotherapy: Treatment of mental disorders and behavioral disturbances using verbal and nonverbal communication, as opposed to agents such as drugs or electric

shock, to alter maladaptive patterns of coping, relieve emotional disturbance, and to encourage personality growth (Moreno et al., 2007).

Assumptions

Several assumptions existed for the present study. The first assumption was that licensed mental health clinicians in the Commonwealth of Massachusetts would have different perceptions and use varying decision-making processes to assess and diagnose PBD. The second assumption was that PBD diagnosis would vary among the licensed clinicians in this study, depending on their current working milieu. It was also assumed that all participants would answer interview questions truthfully. The last assumption was that treatment for PBD would lack consistency among licensed mental health clinicians.

Scope and Delimitations

The scope of this study focused on the assessment and diagnosis of bipolar disorder in children under the age of 18. Although BD affects a significant number of adults, this researcher investigated factors that may be related to the sharp rise in U.S. PBD cases. A few other delimiting factors were also present in the research, including the choice of research questions, the construction of the interview protocol, the researcher's choice of methodology, the method of participant selection, participant inclusion criteria, and the theoretical framework.

Limitations

This study was not without limitations. First, 14 licensed mental health clinicians provided a limited representation of those who assess and diagnose PBD. Since all participants were located in the Commonwealth of Massachusetts, a geographical

limitation was also present. Finally, the qualitative nature of this research prevented generalizability.

Significance

The diagnostic rates of PBD have rapidly increased in recent years, resulting in a substantial rise in the use of mood stabilizing medications among children and adolescents diagnosed with the disorder (Hamerin & Lennaco, 2010), as well as increased hospitalization (Elixhauser, Krieger, Lasky, & Vitiello, 2011). The social implications for this research are significant. As Bhugra et al. (2012) pointed out, there is a need to better understand the decision-making processes used in mental health, especially due to the potential for bias and error. If these decision-making processes are better understood, the development of more useful diagnostic frameworks for training and practice may improve the accuracy of diagnoses. Ultimately, this could lead to the increased quality of clinician training and education. Accurate diagnosis of PBD is essential for the effective treatment of those with the disorder and the prevention of unnecessary treatment in those who do not have PBD. The results of this research also addressed a gap in the literature and provided direction for future research related to the improvement of PBD assessment and diagnostic procedures.

Summary

The current study explored the decision-making processes employed by LMHC during the assessment and diagnosis of PBD. Clinicians' perceptions and lived experiences related to PBD assessment and diagnosis provided a better understanding of the diagnostic process. Chapter 2 provides a review of existing literature related to the topic of PBD diagnosis, and Chapter 3 details the methodology of the study. Results are

presented in Chapter 4, followed by a discussion and interpretation of study findings in Chapter 5.

Chapter 2: Literature Review

Introduction

Over the past 30 years, the APA's definition of BD has changed within the adult population (Wolf, Cozolino, Reinhard, Caldwell, & Asamen, 2009). These changes have had a direct impact on the way licensed mental health clinicians assess and diagnose children and adolescents who present with dysregulated mood. The use of adult criteria to diagnosis children and adolescents with mental health disorders has proven ineffective (Correll & Carbon, 2011; Hamrin & Lennaco, 2010).

The increased prevalence of PBD in recent decades (Sahling, 2009) has raised concerns over the absence of a universal definition of the disorder and brought diagnostic methods and instruments into question. Researchers have addressed the challenges associated with diagnosing PBD (Youngstrom, 2009), including high occurrences of comorbidities (Antoniadis et al., 2012; Bradfield, 2010; Corry et al., 2013; Faedda et al., 2004; Marchand, Lee, Johnson, Gale, & Thatcher, 2013; McDougall, 2009; Mitchell et al., 2013; Scribante, 2009; Serrano, Ezpeleta, & Castro-Fornieles, 2013); symptoms that are challenging to distinguish from other disorders (Jenkins et al., 2011); the subjective nature of diagnostic tools (Diler et al., 2009; Maniscalco & Hamrin, 2008; Stephens & Wallace, 2007); and difficulties associated with the articulation of symptoms by children and their parents (Achenbach, McConaughy, & Howell, 1987; Berube, 2011). The problem that this study addressed is related to the decision-making processes by which mental health professionals assess and diagnose children and adolescents with PBD. Specifically, I investigated the perceptions and lived experiences of the decision-making processes employed by mental health clinicians during PBD assessment and diagnosis.

This chapter begins with the study's theoretical foundation, which is the dual process model of decision-making. Next, a discussion of the characteristics of BD and long-term prognosis issues, including suicide rates and quality of life, are reviewed. The chapter will then move into a discussion of PBD, including an analysis of the differences between PBD and BD, and issues related to diagnosis. An evaluation of the available diagnostic tools will be followed by a description of various treatment options for PBD. A review of the literature related to the potential biological and environmental causes of PBD follows. Inconsistencies in PBD diagnosis and cross-cultural prevalence are also analyzed. The chapter concludes with a brief summary.

Search Strategy

I performed an extensive review of available literature for this chapter. To do this, I accessed several online databases through Walden University's library, including Academic OneFile, Academic Search Complete, InfoTrac, MEDLINE, Sage Journals, PubMed, ScienceDirect, ProQuest, and Springer. I also used Google Scholar to identify seminal literature and employed a variety of search terms, including: *bipolar disorder*, *pediatric bipolar*, *adolescent bipolar*, *bipolar diagnosis*, *childhood bipolar disorder*, *psychiatric analysis*, *child psychiatric assessment*, *bipolar assessment instruments*, *bipolar treatment*, *dual-process model*, and *decision-making theories*.

Theoretical Foundation

The current study incorporated the same theoretical framework employed by Bhugra et al. (2012) during a study on clinical decision-making in psychiatry. Although a variety of decision-making theories have been generated over the last few decades (Kahnman & Tversky, 1979; Simon et al., 1987), the dual process theory (Croskerry,

2009) is one of the most applicable to clinical decision-making because it incorporates the many facets of assessment and diagnosis found in clinical settings. A significant benefit of this theory is that it does away with the need to select a single approach to decision-making; in some instances, an intuitive approach is best, while in others, an analytical approach may be preferred. According to Hammond (2000), there is usually a continuous movement between the two approaches.

According to the dual process theory, decision-making occurs along a continuum, in which one end represents intuition (Type 1), and the other represents analysis (Type 2). System 1 reasoning tends to involve heuristic, associative, and concrete reasoning, while System 2 reasoning is normative, deductive, and abstract (Croskerry, 2009). Recent studies support the validity of the dual process theory in a variety of fields, including philosophy, psychology, neurology, neurophysiology, and genetics (Lieberman, 2000; Oades et al., 2008; Pacini & Epstein, 1999). According to Croskerry (2009), this lends substantial support to the application of dual process theory to medical decision-making and diagnosis.

Croskerry (2009) presented a universal model for diagnostic reasoning that described the "basic operations of the diagnostic process within a dual process framework," including "how diagnostic reasoning skills are acquired, how they might optimally function, and importantly, how diagnostic failure occurs" (p. 29). The main basis of the model is pattern recognition. When clinicians assess a patient, they look for symptoms that they may be able to associate with certain disorders based on past clinical experiences that have equipped them with the abilities to recognize symptomatic patterns. If a pattern is recognized, clinicians engage their System 1 reasoning, and a diagnosis is

made with relative ease. If a pattern is not recognized, however, the more deliberate and analytical System 2 reasoning skills are employed.

The four major operating features of the model are described by Croskerry (2009, p. 31) as follows:

1. Repetitive oration of a particular process using System 2 reasoning may allow it to be related to a System 1 level of automaticity.
2. System 1 processes may override System 2 for a variety of reasons including akrastic or irrational behaviors.
3. System 2 reasoning may override System 1 in a surveillance/governor-like fashion.
4. There is an overall tendency for the system to default to the state requiring the least cognitive effort, the 'cognitive miser' function.

Bhugra et al. (2012) performed a qualitative investigation of the decision-making processes used in psychiatry to explore how psychiatrists reached clinical decisions. A total of 31 psychiatrists working across a variety of settings participated in semistructured, open-ended interviews. Participants were asked basic questions about their training and experience. They were also prompted to "describe a difficult clinical case they had seen recently and describe the process by which they had reached clinical decisions" (p. 405). Participants were also asked to describe their decision-making processes and explain how they believed experts and novices would differ in their decision-making pathways.

After qualitative analysis was performed with NVivo data analysis software, the following seven themes emerged: "information gathering, training in psychiatry, intuition

and experience, evidence-based practice (EBP), cognitive reasoning, uncontrollable factors, and multidisciplinary team influences" (p. 405). The researchers concluded that the decision-making processes involved in psychiatric diagnosis relies on a combination of experience, intuition, training, and evidence. Further, they noted that psychiatrists did not make decisions in isolation, but often acted as members of multidisciplinary teams, which influenced their decision-making.

Bhugra et al. (2012) confirmed that the study results were consistent with the dual process model because it allows for "specific approaches to decision making, which are appropriate for the given situation and may help to explain the variation in approaches across the participants' interviews" (p. 410). While more experienced clinicians were apt to rely on intuition, all clinicians were subject to uncontrollable factors that could influence decision-making processes. The researchers concluded that "comprehensive models of psychiatric decision making therefore need to take into account the complex interplay of both internal and external influences in the process of decision making" (p. 410). The dual process model, therefore, is highly compatible with clinical decision making in mental health settings.

Bipolar Disorder

Types of Bipolar Disorder

BD is a type of mood disorder characterized by cycling between periods of manic and depressive states (Antoniadis et al., 2012). Diagnosing BD can be particularly challenging for clinicians because the disorder's wide spectrum, broad phenotypes, and variety of symptoms create a substantial pool of diagnostic criteria to sift through. When a patient presents with symptoms that may be indicative of BD, the first step toward

diagnosis is determining which classification of the disorder is represented: Bipolar I (BPI), Bipolar II (BPII), cyclothymic disorder, or bipolar—not otherwise specified (BP-NOS).

Bipolar I. According to the DSM-IV (APA, 2000), a BPI diagnosis requires at least one manic or mixed episode. Depression is not enough to make a diagnosis, and BPI "bundles together those with recurrent mania and no depression, with those who experience severe episodes of both polarities, with those who experience primarily depressive episodes" (Youngstrom, 2009, p. 144). Typical signs of manic episodes may include the following: increased energy, restlessness, extreme irritability, euphoric mood, racing thoughts, distractibility, decreased need for sleep, lack of judgment, increased sex drive, denial, drug abuse, and provocative behavior (Sutton, 2009). Symptoms of depressive episodes may include lasting sadness, feelings of hopelessness and guilt, loss of sex drive, decreased energy, difficulty concentrating, irritability, excessive sleep, changes in appetite, chronic pain, or thoughts of suicide (Sutton, 2009).

Bipolar II. The distinguishing feature between BPI and BPII is the level of mania. If the intensity of mood elevation does not require hospitalization and only causes mild interference with social function, it is considered *hypomania* (Youngstrom, 2009, p. 141), which is indicative of the less severe, BPII. Youngstrom (2009) clarified that "Hypomania can be neither severe no clearly impairing (or else it would constitute mania)" (p. 145).

Cyclothymic disorder. This is a type of BD that is "characterized by alternating episodes of mood swings from mild or moderate depression to hypomania, in which the person experiences elevated mood, euphoria, and excitement" (Sutton, 2009, p. 182).

Cyclothymic disorder includes a period of mood disturbance that does not meet criteria for mania, major depression, or mixed state for the first two years of disturbance (Younstrom, 2009). While it includes the presence of distressing or impairing hypomania symptoms, cyclothymic disorder does not require full manic episodes.

Bipolar--not otherwise specified (NOS). BP-NOS is a common diagnosis of bipolar in which hypomania or manic episodes fall short of DSM-IV criteria for duration. (Martinez & Fristad, 2013). The DSM-IV identifies BP-NOS as disorders with bipolar features that do not meet criteria for any specific forms of bipolar (APA, 2000). Symptoms may include recurrent hypomania without depression, hypomania with depression that is too infrequent to be considered cyclothymic, or rapid mood cycles that do not meet the severity or duration threshold for a BPI or BPII diagnosis (Martinez & Fristad, 2013).

Long Term Prognosis

Untreated, the prognosis for BD can be grim. Two of the most devastating effects of BD are increased rates of suicide and suicide attempts, and significant decreases in quality of life. Each of these effects are discussed as follows.

Suicide. BD has long been associated with an increased risk for suicide (Dutta et al., 2007; Eroglu, Karakus, & Tamam, 2013; Hoyer et al., 2004; Novick, Swartz, & Frank, 2010). To investigate the rate of suicide attempts among adults with the disorder, Eroglu et al. (2013) conducted a study of 122 BD patients. The reported suicide attempt rate for the cohort was 19.7%, and researchers were able to link several patient characteristics to higher rates of suicide attempt. These characteristics included being female; an initial episode of depression; a larger number of hospitalizations; a higher

number of total mood episodes; a positive familial history of psychiatric disorders; and longer durations without treatment. Because illness severity and lack of treatment were associated with increased suicide attempt rates, researchers stated that the most important factors in suicide prevention were early diagnosis and effective treatment (Eroglu et al., 2013).

Because different types of BD present with varying symptoms, researchers have also investigated suicide attempt rates along the spectrum of BD. Novick et al. (2010) compared the suicide attempt rates of BPI and BPII among a group of 24 patients. Although researchers were unable to pinpoint any significant differences in rates between the two groups, other distinctions were noted. For example, patients with BPII tended to use more violent and lethal methods than individuals with BPI did. Researchers reported that treatment may reduce the incidence of suicide attempts, but they were unable to distinguish the effectiveness of different treatments. According to Novick et al., ongoing risk assessments and targeted interventions are needed to reduce suicide-related mortality and morbidity in BD patients.

Dutta et al. (2007) conducted a longitudinal study on the risk of suicide among a cohort of 235 patients over a 35-year period. Diagnosis was based in DSM-IV definitions of BD, and patient deaths were arranged into the following five categories: suicide, circulatory system diseases, cancer-related, infectious and respiratory, and other (Dutta et al., 2007). Suicide rates were analyzed by gender and then compared with those of the general population. While researchers observed an elevated risk of suicide among the original cohort (2.5%), it was substantially lower than the commonly cited statistic of 15% (Dutta et al., 2007). Of particular note was the correlation between increased suicide

risk and alcohol abuse and/or functional deterioration within the first year of onset (Dutta et al., 2007)

Quality of life. While suicide and suicide attempts may only affect a relatively small percentage of patients with BD, a much larger portion of the BD population suffers from a decreased quality of life (QoL). According to the World Health Organization QoL assessment (WHOQOL) (1995), QoL represents "individuals' perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns" (p. 1405). According to the WHOQOL group (1995), QoL is an important factor in treatment decisions and often affects the approval of pharmaceuticals and clinical studies.

Research indicates that BD can have a detrimental effect on QoL. Michalak, Yatham, and Lam (2005) conducted a metaanalysis of 28 studies on the QoL of patients with the disorder and found that BPD sufferers experienced lower QoL than patients with many other disorders, including depression, anxiety, schizophrenia, and substance abuse.

Some QoL indicators may be more interrupted in patients with BD. For example, Victor, Johnson, and Gotlib (2011) investigated the specific effect of impulsivity, a common symptom of BD, on QoL in BD patients. They also sought to understand whether QoL was associated with increased comorbidity. Researchers used three instruments to assess BD patients: the Quality of Life in Bipolar Disorder (QoL-BD) scale, the Positive Urgency Measure (PUM), and the Barratt Impulsivity Scale (BIS-11). Victor et al. (2011) noted that impulsivity during positive mood states was particularly detrimental to QoL in patients within BD. Because BD is associated with poor QoL, it is

important for clinicians and researchers to understand predictors and develop treatment approaches that improve QoL (Victor et al., 2011).

Pediatric Bipolar

Until the last decade of the 20th century, BD was viewed as an adult disorder; however, the number of children diagnosed with BD has doubled in the past decade (Scribante, 2009). Since this study focused on PBD, the remainder of the discussion on BD will focus on the pediatric population, which includes all children under the age of 18. The discussion begins with a review of the differences between adult BD and PBD before moving into an analysis of the recent diagnostic surge in PBD. It details potential reasons for the increasing PBD prevalence in the United States, including comorbidity and issues with diagnostic tools. Finally, this section of the chapter includes a review of treatments and possible causes of PBD, along with a discussion of the potentially detrimental effects of PBD labels.

Unique Aspects of PBD

The diagnostic challenges of PBD are largely attributed to symptom variance from adult BD. While BD is characterized by recurrent, discrete mood fluctuations, PBD "is defined by chronic, non-episodic, ultra-rapid cycling" (Bradfield, 2010, p. 242). Since this rapid mood cycling is the primary symptom of PBD, it can easily be confused with other behavioral disorders, such as ADHD and oppositional defiant disorder (Bradfield, 2010). Because the DSM IV-TR (APA, 2000) describes BD as the occurrence of distinct episodes of mania or depression with interspersed periods of normal function, PBD "which manifests as a rapid cycle of fluctuating moods, falls into a nonsological gap"

(Bradfield, 2010, p. 242). Fewer children present classic symptoms of BD because of this discrepancy, especially prepubertal children (Scribante, 2009).

Increases in Diagnosis

In recent years, the number of PBD cases has surged. A 40-fold increase in PBD diagnoses occurred between 1994 and 2003 (Sahling, 2009). According to Parry and Allison (2008), PBD is now the most common psychiatric diagnosis requiring hospitalization in young children. Several factors may play an active role in this increase, including misdiagnosis due to comorbidity, subjective diagnostic criteria, unclear definitions, and unreliable diagnostic instruments.

Potential Misdiagnosis

Comorbidity presents diagnostic challenges, as symptoms of PBD can be confused with a host of other disorders. The clinical histories of children diagnosed with BD often include a variety of other diagnoses. According to Faedda et al. (2004), 60% of bipolar children are also diagnosed with ADHD; 39% are diagnosed with anxiety disorders, such as OCD; 37% are diagnosed with major depressive disorder; and 21% are diagnosed with oppositional defiant and/or conduct disorder. The spectrums of pathology related to PBD can be arranged in the following four clusters: anxiety disorders, ADHD, personality disorders, and major depressive disorder (Bradfield, 2010).

Anxiety disorders. Many studies indicate comorbidity between anxiety disorders and BD, with correlations as high as 60% (Corry et al., 2013). During a study on diagnostic algorithms of BD, Mitchell et al. (2013) reported comorbidities between BD and several anxiety-related disorders, including dysthymia, panic disorder, social phobia, generalized anxiety disorder, posttraumatic stress disorder, drug use, and obsessive

compulsive disorder. Corry et al. (2013) investigated the correlations between BD and anxiety disorders, reporting that anxiety issues were very common, affecting over half of the study sample. In addition, BD sufferers experienced high rates of social phobia, major depressive episodes, and hypomania. The researchers also noted that anxiety and stress mediated the relationship between depressive symptoms and self-criticism and/or beliefs about goal attainment. Cory et al. concluded that perfectionism may influence the development of depression in BD by increasing anxiety and stress.

ADHD. ADHD is the most common comorbid condition of BD (McDougall, 2009), and a significant amount of overlap is present between the diagnostic criteria for ADHD and BD (Scribante, 2009). For example, some of the diagnostic criteria for ADHD include difficulty sustaining attention, an inability to wait turns, and frequently interrupting others. These factors could easily be confused with BD diagnostic criteria such as distractibility, pressure of speech, and flight of ideas (Scribante, 2009). According to Scribante, clinicians must consider several factors in order to differentiate between ADHD and PBD. First, PBD is far more likely to present with a family history than ADHD. Children with PBD are more likely to have a history of discrete periods of elevated energy, while those with ADHD are more likely to be "on the go and driven" (p. 30). Although both ADHD and PBD can present with symptoms of irritability, the mood swings of children with PBD are more frequent, severe, and unpredictable. ADHD and PBD can both cause cycling moods, but those associated with PBD are usually more chronic and erratic (Scribante, 2009).

To investigate the comorbidity of PBD and ADHD, Serrano, Ezpeleta, and Castro-Fornieles (2013) performed an empirical investigation on 100 children between

the ages of 8 and 17. Researchers assessed participants with the Diagnostic Interview for Children and Adolescents-IV (DICA-IV; Reich, 2000), which is "a semistructured diagnostic interview that assesses a wide range of psychological disorders in children and adolescents based on diagnostic criteria from the DSM-IV" (p. 331). Mania was assessed with the Young Mania Rating Scale (YMRS; Young, Biggs, Ziegler, & Meyer, 1978). The Child Mania Rating Scale—Parent Version (CMRS-P; Pavuluri, Henry, Devineni, Carbray, & Birmaher, 2006), Parent-YMRS (Gracious, Youngstrom, Findling, & Calabrese., 2002), Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2001), and Conners' Parents Rating Scale (CPRS-48; Connors, 1989) were also used. After quantitative analysis, data from interviews with parents and children revealed a 14% comorbidity between BD-DSM (DSM-IV diagnosis of BPD) and BD-NOS. Researchers also noted that the CBCL-PBD was not useful for identifying PBD in children who had ADHD, and that ADHD symptoms were more severe in children who had both PBD and ADHD (Serrano, Ezpeleta, & Castro-Fornieles, 2013). In order to prevent misdiagnosis, a patient's full clinical picture should be considered (Scribante, 2009).

Personality disorders. Personality disorders can also be confused with BD or represent a comorbidity. For example, "schizophrenia is a major differential diagnosis because of the perceptual distortions experienced by children and adolescents with bipolar disorder" (McDougall, 2009, p. 35), but the cycling of moods can be used to distinguish BD from schizophrenia.

Antoniadis et al. (2012) performed a meta-analysis to investigate the association between BD and borderline personality disorder, an issue characterized by impulsivity and destabilization of personal relationships and self-image (APA, 2000). Both disorders

are indicated by instability, impulsivity, limbic system alterations, and possible heritability. The comorbidity of BD and borderline personality disorder is relatively high, and common etiological factors have led to suggestions that the two are subtypes of one another (Antoniadis et al., 2012). Antoniadis et al. performed a systematic review of studies published between 1990 and 2010 to examine the clinical features, neuroanatomy, neurochemistry, genetic linkages, and treatment of each disorder. Despite similarities, the researchers concluded that BD and borderline personality disorder are two separate clinical entities that share many similar features, and that "the simultaneous presence of the two disorders in the same individual probably reflects the similar way in which they are defined" (p. 457). The researchers called for further studies on the pathogenesis and treatment of each disorder in order to achieve more accurate definitions and prevent misdiagnosis.

Major depressive disorder. Previous bouts of severe or psychotic depression can indicate an increased risk for developing PBD, so children who have experienced major depression and have a family history of BD should be monitored closely (McDougall, 2009). According to Vieta and Suppes (2008), hypomaniac episodes of BD are often unrecognized, causing individuals to receive a diagnosis of unipolar depression, rather than BD. Consequently, there is a critical need to develop biomarkers that distinguish BD and unipolar depression (Marchand, Lee, Johnson, Gale, & Thatcher, 2013).

In an attempt to develop diagnostic criteria to differentiate unipolar and bipolar depression, Marchand et al. (2013) conducted functional MRI brain scans of 14 subjects diagnosed with bipolar depression, and 26 subjects diagnosed with unipolar depression. The researchers discovered functional connectivity within the brain that may distinguish

the two types of depression. Correlational analysis indicated an association between symptoms and function within the right posterior cingulate cortex in the brains of patients with unipolar depression, but not in those with BD (Marchand et al., 2013). Although only one other study has reported similar functional abnormalities (Anand, Li, Wang, Lowe, & Dzemidzic, 2009), this research is an important start for developing objective diagnostic criteria for mood disorders (Marchand et al., 2013).

Challenges with Diagnosis

PBD can be extremely difficult to accurately diagnose for several reasons. The first challenge is related to the absence of a universal definition of PBD, although efforts to create one have been made (Youngstrom, 2009). Symptoms attributable to PBD often overlap with common disorders, such as ADHD and depression (Jenkins, Youngstrom, Washburn, & Youngstrom, 2011). This makes it difficult for clinicians to determine if a child has PBD, another issue, or PBD in conjunction with another disorder. According to Jenkins et al. (2011), the complexity of presentation coupled with the comparatively low prevalence rates of PBD can cause clinicians to overemphasize a comorbid condition or misdiagnose cases that have a PBD comorbidity. Finally, the variation of possible presentations can complicate diagnostic decisions. For example, as Jenkins et al. (2011) noted, BDI can present in a variety of ways, including mania, depression, a mix of both, or normal functioning, depending on the patient's current mood state. The diagnostic tools available to help clinicians identify PBD can also present issues. Many such instruments are not evidence-based and rely on interviews, which can be impractical and unavoidably subjective (Jenkins et al., 2011), as will be discussed later in this chapter.

Overdiagnosis

Comorbidity aside, some critics of the upswing in PBD diagnoses in the last 30 years claim that many children who are diagnosed with the disorder are simply exhibiting common child behaviors of hyperactivity and temper tantrums. As Breggin (2008) claimed, "There is no scientific evidence that temper tantrums and other expressions of unruly behavior, regardless of how extreme, are a precursor to manifestations of manic-like behavior in adulthood" (p. 68). Breggin argued that the "mass drugging" (p. 70) of children who have been diagnosed with PBD has serious health and social implications. Studies suggest that neuroleptic drugs, such as risperidone and olanzapine, can cause neurological damage, diabetes, pancreatitis, and obesity (Breggin, 2008). It is also possible that early exposure to mood stabilizers, antidepressants, and antipsychotics can have a permanent effect on the developing brains of children (Moncrieff & Leo, 2010).

Underdiagnosis

While overdiagnosis is a concern for many clinicians and researchers, others are worried that too many cases of PBD go undetected. Alach (as cited in Berube, 2011) posited that the complexity of PBD, coupled with children's inability to articulate their experiences and the often contradictory input of concerned parents, can make it difficult for clinicians to recognize the disorder. Alach argued that parents and teachers are more likely to take notice of negative behaviors, such as agitation, destructiveness, and violence. Euphoria and elation, on the other hand, are often viewed as normal childhood behaviors. However, recurring cycles of the two extremes can be an indicator of PBD. Left untreated, the disorder increases a child's risk of poor academic performance, impaired social function, self-medicating, and a host of other self-destructive behaviors

(Alach, as cited in Berube, 2011). Further, some evidence suggests that early pharmacological treatment can result in better outcomes for children with PBD; but without a diagnosis, a child could be left to struggle with the disorder, unassisted.

Diagnostic Tools

Another challenge with PBD diagnosis is the lack of an objective test to detect the disorder. Members from two consensus conferences, a National Institute of Mental Health roundtable and a Canadian guideline, all concluded that none of the available tests for PBD are ideal, and the development of a reliable assessment instrument has become increasingly critical (Stephens & Wallace, 2007). Attendees at one of the conferences suggested mental health specialists make diagnostic decisions based on multiple informants, including children and parents, and that symptoms should be detected by direct observation or be present in at least two different settings (Stephens & Wallace, 2007). There are currently several different instruments available to help clinicians detect PBD, including: DSM-IV; Kiddie Schedule for Affective Disorders and Schizophrenia (WASH-U-KSADS); Child Mania Rating Scale; Child Behavior Checklist (CBCL); Parent Young Mania Rating Scale; General Behavior Inventory; Parent General Behavior Inventory; Schedule for Affective Disorders and Schizophrenia for School Age Children—Present and Lifetime Version; and Youth Self Report. A description of each of these instruments follows.

DSM-IV: As noted by Fields and Fristad (2009), "The assessment of any psychiatric illness is often tied—for better or worse—to criteria stipulated by the Diagnostic and Statistical Manual of Mental Disorders" (p. 167). The DSM-IV does not distinguish diagnostic criteria between adults and children, which is possibly the greatest

of all of PBD's diagnostic hurdles. According to the DSM-IV, a diagnosis of BD requires the presence of elevated or irritable moods accompanied by at least three of the following symptoms: inflated self-esteem or grandiosity; decreased need for sleep; increased talkativeness; flight of ideas; distractibility; increase in goal-directed activity or psychomotor agitation; and excessive involvement in pleasurable activities (Fields & Fristad, 2009, p. 167). Although controversy exists over use of the DSM-IV to diagnose PBD, the American Academy of Child and Adolescent Psychiatry (AACAP) treatment guidelines recommend that clinicians apply these diagnostic criteria to children (AACAP, 2007).

Kiddie Schedule for Affective Disorders and Schizophrenia (WASH-U-KSADS): The WASH-U-KSADS was developed primarily for the assessment of PBD via research interviews (Geller, Williams, & Zimerman, 1996). This instrument involves semi-structured interviews and provides a reported 100% inter-rater reliability after five consecutive interviews (Maniscalco & Hamrin, 2008), as well as a stability measure of 85.7% at the 6-month mark (Geller et al., 2000). Unfortunately, the WASH-U-KSADS is incredibly extensive and should only be administered by trained individuals (Maniscalco & Hamrin, 2008), which makes it less than ideal for many clinicians.

Child Mania Rating Scale—Parent Version: This assessment involves a 21-item questionnaire that includes manic criteria described in the DSM-IV (Maniscalco & Hamrin, 2008; Pavuluri, Henry, Devieni, Carbray, & Birmaher, 2006). Parents use the questionnaire, which takes about 10 to 15 minutes to complete, to rate their child's manic behaviors (Maniscalco & Hamrin, 2008). During a study conducted by Pavuluri et al. (2006), the scale provided a reliability of .91 in a sample of bipolar children.

Child Behavior Checklist (CBCL): Because of its ease of administration, cross-cultural validation, and psychometric properties, the CBCL has been employed in many studies on pediatric psychopathology, including PBD (Diler et al., 2009). According to the scale creators (Achenbach & Edelbrock, 1991), the sum of attention, aggression, and anxious/depressed subscales on the CBCL PBP phenotype may be useful for diagnosing PBD. However, studies that have utilized this instrument to diagnose PBD have had mixed results. For example, Diler et al. (2009) performed an investigation on the reliability of the CBCL-PBD for accurate detection of PBD, and reported that the CBCL and CBCL-PBD did not reliably distinguish PBD from other conditions, including anxiety, depression, and disruptive behavior.

Parent Young Mania Rating Scale (P-YMRS): The P-YMRS is an adaptation of the Young Mania Rating Scale (YMRS; Young, Biggs, Ziegler, & Meyer, 1978), which was originally designed to assess adult BD (Gracious, Youngstrom, Findling, & Calabrese, 2002). It involves an 11-item, multiple-choice scale and has a reported consistency of .80 for children between the ages of five and 10 (Gracious et al., 2002)

General Behavior Inventory (GBI): The GBI is a 73-item self-report inventory that focuses on mood behaviors such as depression, hypomania, and biphasic symptoms (Danielson, Youngstrom, Findling, & Calabrese, 2003; Depeu, Krauss, Spoont, & Arbisi, 1989). Danielson et al. (2003) conducted a study analyzing the usefulness of the GBI with youth self-report to assess child and adolescent mood and behavioral problems. Researchers reported that the GBI can be useful for diagnosing youths with behavioral disorders that are difficult to detect, such as PBD and disruptive behavior disorders. It

may also be particularly useful for distinguishing bipolar and unipolar depression (Danielson et al., 2003).

Parent General Behavior Inventory (P-GBI): The P-GBI is an adapted version of the GBI that allows parents to assess behavioral and mood functions of their children (Depue, Krauss, & Spoont, 1989). Youngstrom, Finding, Danielson, & Calabrese (2001) investigated the usefulness of a parent rating of the GBI to detect hypomania, depression, and biphasic symptoms. Researchers reported that the P-GBI may provide clinicians with helpful information to make accurate PBD diagnoses. Specifically, Youngstrom et al. (2001) suggested that the P-GBI may help quantify subsyndromal symptoms, which could assist in PBD assessment. The P-GBI may also be useful for measuring treatment progress.

Schedule for Affective Disorders and Schizophrenia for School Age Children—Present and Lifetime Version (K-SADS-PL): The K-SADS-PL is an interview-based instrument to assess child and adolescent psychiatric disorders (Kaufman et al., 1997). Studies on the validity and reliability support it as a reliable tool for youth psychiatric diagnoses (Shahrivar et al., 2010); however, it is most appropriate for use in epidemiological studies because its assessment for lifetime and current symptoms are dichotomous, and the tool does not broadly assess symptom severity. (Ambrosini, 2000). Further, authors of the K-SADS-PL do not recommend for it to be used as the only instrument during assessments; "rather, they recommend that it can be used as part of a comprehensive assessment battery together with rating scale data from both parents and children and whenever possible, teachers" (Shahrivar et al., 2010, p. 98).

Youth Self-Report (YSR): The YSR is a widely used empirical questionnaire designed to assess a broad spectrum of child psychopathology (Achenbach, 1991; Roussos et al., 2001). Between 1986 and 1992, 42 published articles utilized the YSR to assess a broad range of child and adolescent emotional and behavioral problems (Song, Singh, & Singer, 1994). Song et al. (1994) conducted a study to evaluate the measurement fidelity of the YSR among a sample of 423 in-patient adolescent participants. Researchers reported that the YSR was partially valid, but that there were problems with some of Achenbach's narrowband syndromes—social problems, thought problems, and attention problems. Further, Song et al. (1994) posited there are 10, not seven narrowband syndromes, and that significant gender differences have been detected in relationship patterns tested by the instrument. Researchers concluded that the YSR needed to be reexamined and expanded to increase its clinical utility.

Many of the instruments used to diagnose PBD involve parent assessments or self-assessments by children. Youngstrom et al. (2004) performed a study to investigate the accuracy of six screening tools for PBD: P-YMRS, General Behavior Inventory, Parent General Behavior Inventory, Child Behavior Checklist, Youth Self-Report, and Teacher Report Form. The researchers concluded that parent reporting provided more accurate diagnosis of PBD than self-reports or teacher reports. With that considered, there are still pragmatic challenges to parent reports. Some clinicians prefer youth self-report because the child has direct access to the feelings and moods that are central to disorders such as PBD. Parents, on the other hand, must infer from behavioral observations, which may not always be completely accurate. However, children may have a difficult time expressing themselves on these assessments, and discrepancies between parent and child

reports can add another layer of difficulty to the existing diagnostic challenges of PBD (Achenbach, McConaughy, & Howell, 1987).

It is clear that no perfect tool is currently available to diagnose PBD. In response to criticisms regarding the inadequacy of existing diagnostic tools, Jenkins et al. (2011) tested the use of an evidence-based assessment (EBA) tool called a probability nomogram among over 600 participating clinicians in the United States and Canada. The nomogram was a probability slide tool designed to predict the risk of PBD based on family history. The researchers wanted to determine if the nomogram could improve clinical interpretations of family history and data from other testing measures. They were also interested in examining how apt clinicians were to accept the nomogram as a practical diagnostic tool. Participants were presented with a clinical vignette and asked to assess the probability that the child in the vignette had PBD based on DSM-IV criteria. After adjusting their estimations based on a given diagnostic likelihood ratio, participants were trained to use the nomogram and asked to re-estimate the probability. Researchers reported that participant estimations of PBD risk ranged from 0% to 100%, and that providing clinicians with an additional assessment tool did not improve diagnostic accuracy or consensus. Jenkins et al. noted, “Taken together, these findings indicate that clinicians will often disagree in their diagnostic formulation of an individual case even when interpreting identical information, and use of valid rating scales will not be sufficient by themselves to improve diagnostic accuracy” (p. 126). It seems that without an objective measure, such as a genetic biomarker, clinicians will continue to experience challenges with diagnosing PBD.

Treatment for PBD

Although treatments for adults with BD have undergone extensive investigation, interventions for PBD are far less studied (Geller, Tillman, Bolhofner, & Zimerman, 2010). However, as the increase in diagnosis of PBD has occurred, so too has the need for effective treatment options. While child-focused family therapy techniques (West et al., 2009) and cognitive behavioral adaptations have been developed for PBD, drugs are often prescribed as the sole treatment intervention (Littrell & Lyons, 2010; McDougall, 2009). Common drugs prescribed to children with PBD include lithium, valproate, lamotrigine, carbamazepine, and atypical antipsychotics such as clozapine, aripiprazole, risperidone, ziprasidone, olanzapine, and quetiapine (Littrell & Lyons, 2010). Prescription drugs present many potential complications and side effects for children, especially when considering the prevalence of the aforementioned comorbid conditions and subsequent increase in potential for misdiagnosis. The use of antipsychotics or mood stabilizers depends on a host of factors, such as side effects, severity of symptoms, and previous responses to treatment (McDougall, 2009).

Geller, Tillman, Bolhofner, and Zimerman (2010) examined various pharmacological and non-pharmacological treatments for PBD during their evaluation of data collected from the Phenomenology and Course of Pediatric Disorders study. The study was funded by the National Institute of Mental Health and involved tracking treatments provided by participants' practitioners. Medications were categorized into the following classes: ADHD, antidepressants, antipsychotics, anticonvulsants, lithium, anxiolytics, and antimaniac drugs. Non-drug treatments included individual, family, group, self-help, or other forms of therapy (Geller et al., 2010). Overall, researchers

reported poor prognosis from follow-up studies and called for "further research that informs the development of treatment strategies" (p. 170).

One of the interesting findings from this study was the prevalence of polypharmacy (Geller et al., 2010). A reported 67.8% of children were on medications from two or more drug classes. "The most frequent combinations of medication classes, occurring in over 35% of subjects, were antimaniac with medication for ADHD (43.5%), antidepressant with medication for ADHD (43.5%), and antimaniac with antidepressant (39.1%)" (p. 168). Geller et al. urged clinicians to heed caution when making pharmacological decisions in children with bipolar — due to questions and controversies surrounding potential side effects and efficacy — especially when prescribing antidepressants and stimulants.

In response to the rise in prescription medication treatment of PBD, the American Academy of Child and Adolescent Psychiatry made recommendations regarding the use of such drugs. Organization members pointed out that only a few psychotropics were approved for use in children, and many had only been evaluated for safety and effectiveness in adults (Gleason et al., 2007). FDA-approved drugs for use in children include haloperidol, thioridazine, divalproex, oxcarbazepine, risperidone, quietiapine ziprasidone, and olanzapine (Kuehn, 2009).

Though drugs are often the PBD treatment of choice, behavioral therapy may also be an effective tool for managing the disorder. West et al. (2009) investigated the efficacy of child and family-focused cognitive behavioral therapy (CFF-CPT) as a psychosocial intervention for children with PBD. The researchers described the dimensions of CFF-CPT interventions, which include the following: developmental specifications for

children between the ages of 8 and 12; design driven by the unique needs of each patient and family; the inclusion of intensive therapy with parents and children in a family model; the integration of psychoeducation, cognitive-behavioral therapy, and interpersonal therapy across many domains.

All participants of the study were diagnosed with PBD according to the WASH-U-KSADS (West et al., 2009). Various methods were used at the beginning and the end of the study to assess the symptoms, functioning, and coping of parents and children. The assessment instruments included the CMRS-P Mania, CMRS-P Depression, CDI, Parent SDQ, Child SDQ, PSS, and TOPS. At the conclusion of the three-year study, researchers reported that parents noted significant improvements in their children's psychosocial functioning. While children's self-reports were not consistent with those of the parents, West et al. (2009) hypothesized that this may have been attributed to evidence of past studies which suggest that parents are better able to report on children's symptoms and functioning than children with PBD are (Youngstrom et al., 2004). Researchers concluded with the call for further research and emphasized the need for psychosocial PBD treatments that were evidence-based and used in conjunction with pharmaceuticals to combat negative effects of the disease.

Biological Causes

The exact causes of BD are unknown. Some researchers believe the causes are biological in nature (Barnett & Smoller, 2009; Lee, Woon, Teo, & Sim, 2012; Leussis et al., 2013; Sahling, 2009; Wozniak et al., 2010), while others contend that environmental factors are to blame. Both sides of this argument are explored in the following pages.

Building on research that indicated a genetic link in BD (Barnett & Smoller, 2009; Lee et al., 2012), Leussis et al. (2013) performed an animal study to investigate the role of the ANK3 gene in BD risk. ANK3 had been implicated as a risk factor in development of the disease (Lee et al., 2012). Leussis et al (2013) "explored a new role of ANK3 in neural circuits regulating mood using an integrative approach encompassing genetic, neurobiological, pharmacologic, and environmental components" (p. 684). Researchers used two different methods to suppress the expression of ANK3 in mice, and were able to provide evidence that the gene played a role in neural processes related to the regulation of psychiatric behaviors. While the research is still in its infancy, it presents possibilities for the development of objective diagnostic methods and the potential for new treatments.

While a strong biological, familial link to BD has been established in adults, the literature on the familiality of PBD is much more limited (Wozniak et al., 2010). Accordingly, Wozniak et al. (2010) conducted a study to evaluate the role of family histories in PBD risk. Researchers evaluated 157 children between the ages of six and 17 who had been diagnosed with PBD, as well as 487 first-degree relatives. All participants were diagnosed based on DSM-IV criteria. Individuals who met criteria for BP-II or BP-NOS were excluded. Researchers reported that the risk of BP-I disorder in the relatives of children with PBD was significantly higher than that of the control group. The study also indicated that the first-degree relatives of children with PBD were at an increased risk for several other psychological disorders, including psychosis, major depression, multiple anxiety disorders, substance use disorders, ADHD, ODD and antisocial CD or anti-social personality disorder (Wozniak et al., 2010).

Environmental Causes

While many researchers believe that the causes of BD are biological, others contend that a variety of environmental factors, such as stress (Bender & Alloy, 2011; Corry et al., 2013; Grande, Magalhaes, Kunz, Vieta, & Kapczinski, 2012), home environment, and diet (Dickerson, 2011, 2012; Phelps, Siemers, & El-Mallakh, 2013, Sathyanarayana Rao, Asha, Ramesh, & Jagannatha Rao, 2008) are to blame. Some researchers even have even suggested that levels of sunlight exposure may affect the onset age of BD (Bauer et al., 2012). Those who blame environmental factors often criticize BD assessment and treatment measures used by the medical community. For example, Sahling (2009) scorned the increase in PBD diagnosis, claiming it had "less to do with science than it does with finding new markets for the drug companies" (Sahling, 2009, p. 215). According to Sahling (2009), the biggest problem with any theory that posits BD is biological is the lack of replicable studies that point to an identifiable biological cause: "At present, there is no lab test or consistently replicated set of physiological characteristics that can identify the agent(s), structure, or chemical imbalance within the brain causing the disorder" (p. 216). The lack of objective tests to identify biological causes for BD can call biological theories into question. Sahling blamed marketing by pharmaceutical companies and insufficient diagnostic measures for the rapid rise in PBD diagnoses.

Environmental factors may also play a role in PBD development in other ways. Grande et al. (2012) proposed that environmental factors play a role in the trajectory of the disease by way of *allostatic load*. This concept refers to the total and multi-system view of the physiological toll that adaptation takes on the body (Grande et al., 2012). Any

type of chronic physical or psychological stress can cause wear and tear on the body, and the acute mood episodes associated with BD can result in system toxicity and impairment. Heightened allostatic load from the disease can quicken the progression of BD while also increasing risks for obesity, hypertension, diabetes, and other cardiovascular conditions (Grande et al., 2012). The researchers suggested that reducing allostasis may lessen the burdens associated with BD because symptoms of the disorder often worsen as allostasis increases. While this strengthens the argument for early intervention, it also emphasizes the importance of managing allostatic load during later stages of the disease (Grande et al., 2012).

Diet may also be a factor in BD. Interesting studies by Dickerson et al. (2011, 2012) led researchers to propose that gluten may play a role in the presentation of BD. In a 2011 study, Dickerson et al. tested 102 individuals with BD and 173 participants without the disease for two antibodies linked to gluten sensitivity: AGA-IgG and AGA-IgA. Researchers discovered that participants with BD were significantly more likely to have gluten antibodies present than individuals without the disease. In 2012, Dickerson et al. examined the relationship between the presence of gluten antibodies and acute mania, and reported that participants who had been hospitalized for mania were at a much greater risk of elevated IgG antibodies. However, neither of these studies indicated causal links. Researchers concluded "it remains to be determined whether gluten proteins or the observed elevated immune response to them have any role in the pathogenic mechanism of polar disorder of have the potential to serve as biomarkers of disease diagnosis or activity," (2011, p. 57), calling for controlled trials and longitudinal studies to determine the relationship between gluten antibodies and BPD.

Stigma

The controversy over the cause of BD is just one of many contentions associated with the disorder. Aside from the dangers of unnecessary treatment in children misdiagnosed with PBD, it is also important to consider the psychosocial damage that a PBD diagnosis can have on function. The negative connotations and inaccurate assumptions related to a mental illness diagnosis can cause just as much damage as the disease, itself (Overton & Medina, 2008).

The stereotypes associated with mental illness can dominate an individual's self-concept, causing one to fulfill the expectations of the stereotyped role (Scheff, 1966). The damage done to an individual's self-concept by a mental illness diagnosis is the result of stigma (Pasman, 2011). Corrigan (2011) explained that this kind of psychiatric stigma is caused by internalized stereotypes and attitudes held against the mentally ill, which can directly harm affected individuals. Some of the common stigmatizing attitudes include beliefs that those with mental illnesses are weak, deviant, unintelligent, unreliable, incompetent, violent, or unpredictable (Hawke, Parikh, & Michalak, 2013). These attitudes often permeate the general public, families, social circles, healthcare professions, as well as individuals affected with mental illnesses (Sartorius et al., 2010). Self-stigma has a detrimental effect on the self-concepts of the mentally ill because the labeled individual internalizes negative stereotypes about his or her diagnostic group, which can affect every aspect of self-perception (Pasman, 2011). Pasman (2011) summarized the related effects of mental diagnosis as follows:

> The evidence generally indicates that (1) reified diagnosis leads to stigma and self-stigma, (2) experienced and expected stigma leads to non-adaptive coping

> responses, and (3) these responses lead to lowered self-efficacy, lowered self-esteem and therefore a more negative self-concept. Thus, the reification of diagnosis under the influence of the DSM diagnostic system ultimately leads to lowered self-concept among those who receive diagnosis. (p. 125)

To assess the concept of stigma in relation to BD, Hawke et al. (2013) performed a meta-analysis of 32 studies, categorizing and analyzing them as follows: subjective experiences of stigma in those with BD; the impact of stigma upon functioning; the experience of stigma among relatives of individuals with BD; and comparison of BD stigma to other disorders. Analysis of the studies revealed that BD can be highly stigmatizing, both internally and socially. The stigma experienced by individuals diagnosed with BD is associated with shame, withdrawal, secrecy, and low quality of life (Hawke et al., 2013). In terms of functional impairment, researchers noted a strong link between stigma and function. Greater levels of self- and perceived stigma were associated with decreased function across a variety of environments. In conclusion, Hawke et al. (2013) claimed that the levels of stigma associated with BD were similar to those experienced by individuals with schizophrenia, and that BD and mania may be more highly stigmatized than depression. The researchers explained that the experience of stigma is an everyday reality for most individuals with BD and their families, both internally and externally.

Suto et al. (2012) also investigated the association between stigma and BD. Researchers employed focus group research to investigate how the stigma of BD may affect individuals on structural, social, and self levels. Three focus groups containing a total of 28 BD participants were conducted. Researchers asked open-ended questions to

probe individuals to share their experiences with stigma. Results indicated the devastating effects that stigma can have upon individuals struggling with BD. Participants reported structural stigma through their experiences with policies and practices of social institutions, such as school and work, that made them feel devalued and excluded. On the level of social stigma, participants discussed negative representations of mental illness in the media and the challenges they faced in social relationships, which were strained by poor knowledge and attitudes that others had about BD. Finally, participants relayed self-stigma in the form of "negative, self-limiting thoughts" which "had a crippling effect on their desire to pursue social relationships and life goals" (p. 90).

In his criticism of the surge in PBD diagnoses, Sahling (2009) argued that, beyond the label of the diagnosis, pharmacological management of mental illness can have a negative effect on the self-concept of children. Sahling (2009) contended that:

> This "undiagnosed epidemic" also has the potential to create millions of lifelong consumers of these psychostimulant drugs. Children who are taking these prescription drugs are likely, as they mature, to internalize the message that something is wrong with them—something that is outside of their control and needs medication to be controlled (p. 217).

Diagnostic Consistency

Another challenge of BD is diagnostic inconsistency (Ruggero, Carlson, Kotov, & Bromet, 2010). Depending on the assessment instrument used, the diagnostic inconsistency for BD may be as high as 91% (Ruggero et al., 2010). Some researchers have reported even wider variations (Marneros, Deister, & Rohde, 1991; Rufino et al., 2005). According to Ruggero et al. (2010), there are generally two factors that can lead to

inconsistent diagnosis: changes in psychopathology or assessment error. Diagnosis for children becomes even more complicated, due to increased comorbidities, more complex psychopathology, and premorbid adjustment. Consequently, Ruggero et al. (2010) set out to investigate the 10-year consistency of BD diagnosis and factors that affected consistency over time. Researchers evaluated a cohort of 195 bipolar respondents at baseline, 6-month, 2-year, and 10-year marks, using the Structured Clinical Interview for DSM-IV (SCID), Scale for the Assessment of Positive Symptoms (SAPS), Brief Psychiatric Rating Scale (BPRS), Global Assessment of Functioning (GAF), and the Child and Adolescent Symptom Inventory. Researchers reported that only 50.3% of participants were consistently diagnosed at every assessment. They determined that inconsistency could be attributed to a variety of factors, including an increased number of symptoms, more psychotic symptoms, decreased functioning, and presenting after a depressed or mixed episode instead of a manic one. Child-specific factors that impeded consistency included childhood psychopathology and decreased premorbid functioning during adolescence (Ruggero et al., 2010). If this level of diagnostic inconsistency can present in a research setting in which strictly trained clinicians followed rigorous diagnostic practices, high levels of inconsistency in regular, clinical settings is very plausible.

Another investigation into the diagnostic inconsistency of BD was conducted by Baca-Garcia et al. (2007). The study included 1153 Spanish participants, and the researchers' objective was an evaluation of the "long-term stability and evolution of the International Classification of Diseases—10th revision (ICD-10) diagnosis of BD in multiple clinical settings" (p. 474). Participants were assessed by assigned psychiatrists in

three different settings: in-patient units, psychiatric emergency rooms, and out-patient psychiatric facilities. All patients were assessed at least 10 times during the evaluation period, which spanned from 1992 to 2004. Of the total sample, only 30% of participants were diagnosed with BD during their first assessment. However, 70% received the diagnosis during later assessments. On average, it took clinicians 17.9 contacts before a BD diagnosis was made. Researchers asserted that the lack of stability may have been due to evolution of the illness within patients or weaknesses inherent to clinical assessments. They concluded with a call for further research that utilized larger samples. Baca-Garcia et al. posited that the results of their study raised concerns regarding "the validity of the results of epidemiologic, clinical, and pharmacologic psychiatric research, particularly, in studies of chronic disorder with short follow-up periods that may not allow enough time to reach the right diagnosis or in studies that do not take setting into account" (p. 480).

Cross-Cultural Analysis

Another troubling characteristic of the drastic and sudden increase of PBD in the United States is that other developed nations have not experienced the same increase (Soutullo et al., 2005). Donfrancesco et al. (2014) compared the characteristics and symptoms of PBD in the U.S. and Italy. Children from the U.S. and Italy between the ages of five and 12 who met the DSM-IV criteria for BD were included, generating a total of 40 Italian and 28 U.S. participants. Researchers administered the WASH-U-K-SADS and the Schedule for Affective Disorders and Schizophrenia for School-Age Children—Present, Lifetime Version (K-SADS-PL1.0) (Kaufman et al., 1997). In addition, each child was assessed for functional impairment according to the Clinical

Global Assessment Scale (C-GAS) (Shaffer et al., 1983). Researchers found that the rates and characteristics of PBD were consistent between the two groups, with irritability, distractibility, and hyperactivity receiving high scores for both. There was also a strong comorbidity with ADHD in both groups. The main discrepancy that researchers noted was a difference in elated group and flight of ideas among the two cohorts, which may have been attributable to cultural bias or different pharmacological interventions. Italian participants were more likely to experience elation and less likely to experience depressive symptoms than the U.S. participants. Researchers explained that "methylphenidate is more frequently prescribed in the United States than in Italy and was not prescribed for any of the Italian youth in this sample which may explain higher elevated mood (vs. irritability) scores in the Italian sample" (p. 55).

Soutullo et al. (2009) conducted a study examining the characteristics and symptoms of PBD in a sample of children from Spain. Participants were all under 18 years of age and diagnosed with BD based on DSM-IV criteria. Researchers used the K-SADS-PL to evaluate participants for mood, anxiety, ADHD, ODD, and CD (Soutullo et al., 2009). Overall, researchers found that the BD characteristics and symptom presentation in the Spanish sample was similar to those seen in studies on U.S. children, specifically noting that similarities in "high levels of severe irritability, mixed states and comorbidity" (p. 45). Researchers suggested that the lower estimates of prevalence often cited in studies outside the U.S. may be due to clinical characteristics and comorbidity, often implicated in the underdiagnosis of PBD in the U.S.

Because many factors can influence estimates of BD prevalence, Ferrari, Baxter, and Whiteford (2011) conducted a systematic review of related studies to investigate the

global prevalence of the disorder. A total of 29 epidemiological studies on BD prevalence, covering 20 countries, were analyzed. While researchers did discover a significant difference in regional prevalence, they attributed this to an outlying Moroccan study that reported unusually high prevalence rates. Researchers did not notice any significant differences in regional prevalence based on economic status, and stated that "the similarity in prevalence across regions with very different economic profiles iterates the stability in the occurrence" of BD (p. 10). Although they were unable to report significant regional differences in BD rates across the globe, researchers acknowledged that little or no data is available for many regions of the world, and that further research is necessary to better understand global prevalence.

Summary

As with any illness that demonstrates fast growth, the increase in PBD is one that warrants attention. While it is possible that the prevalence of the disorder has seen an actual spike, there is also a chance that diagnostic inconsistencies based on unreliable instruments, variance in clinical opinions, and confusion over the differences between BD and PBD are also to blame; all of which may affect clinicians' decision-making processes. This issue is critical on a social level, as the upswing in PBD cases certainly has economic and social implications; however, on an individual level, the stigma of a mental disorder such as PBD can also have detrimental effects on the psychosocial function of individual children. For this reason, it is even more important that clinicians' decision-making processes are careful and precise.

This study was an exploration of the fundamental question of what decision-making processes mental health clinicians employ during the assessment and diagnosis of

PBD. The researcher investigated the perceptions and lived experiences of licensed mental health clinicians in the Commonwealth of Massachusetts regarding these processes. The following chapter includes an outline the qualitative methodology that the current study included.

Chapter 3: Research Methods

Introduction

This qualitative study was an exploration of the perceptions and lived experiences of licensed mental health clinicians in the Commonwealth of Massachusetts related to decision-making processes employed during the assessment and diagnosis of PBD. This chapter includes a detailed description of the study's methodology. It begins with a discussion of the research design and rationale, including the study's research questions and tradition. The role of the researcher is described to provide the reader with an understanding of how I dealt with a variety of factors, such as bias and potential ethical issues. The methodology is discussed in detail to provide information about the study population, sample strategy, participant characteristics, instrumentation, and data analysis plan. Issues related to trustworthiness, including credibility, transferability, dependability, and confirmability are presented next. Finally, this chapter concludes with a description of ethical procedures and a brief summary.

Context and Purpose Statement

The annual rates of PBD are increasing rapidly (Blader & Carlson, 2007; Moreno, Laje, Blanco, Schmidt & Olfson, 2007), and the reasons for the rise are unclear. Limited research in the area of PBD makes it difficult to determine if early onset is due to biological or environmental antecedents, or if the numbers are the results of diagnostic errors. The purpose of this qualitative study was to explore clinicians' perceptions and experiences of the decision-making processes employed during the assessment and diagnosis of PBD.

Research Design and Rationale

This study followed a phenomenographic (Marton, 1981) research tradition to explore clinicians' perceptions and lived experiences of the decision-making processes employed during the assessment and diagnosis of PBD. The following research question guided the research:

> What are the perceptions and lived experiences of the decision-making processes employed by licensed mental health clinicians in the Commonwealth of Massachusetts regarding the assessment and diagnosis of pediatric bipolar disorder?

Qualitative methodology allows researchers to approach fieldwork without being constrained by predetermined categories of analysis. This contributes to the depth, openness, and detail of qualitative inquiries (Patton, 2002). Creswell (2008) defined qualitative study as "an inquiry process of understanding a social or human problem, based on building a complex, holistic picture, formed with words, reporting detailed views of informants and conducted in a natural setting" (p. 2).

Phenomenography was chosen for a few reasons. First, it is important to note that individuals experience and conceptualize different phenomena in different ways, so the processes of assessing and diagnosing a child with PBD are likely to vary between clinicians. Phenomenography aims to understand the variations in perceptions of a phenomenon (Patton, 2002), which made strong fit for the primary goal of the this study. Marton (1981) described a phenomenographic approach as "research which aims at description, analysis, and understanding of experiences; that is, research which is directed towards experiential description" (p. 180).

Although the more common tradition of phenomenology strives to understand individual experiences, phenomenography places a greater emphasis on the collective meaning of phenomena (Barnard, McCosker, & Gerber, 1999). The focus on collective understandings and experiences is very compatible with a significant portion of the theoretical framework for this study. Phenomenography was born out of research focused on education and is an excellent tradition for exploring health care topics. According to Barnard et al. (1999), there are three lines of inquiry into which phenomenographic approaches can be organized: (a) general aspects of learning; (b) learning within domains such as economics, mathematics, or health care; and (c) the ways in which people perceive different aspects of the world. Barnard (1999) explained:

> There is opportunity for a broad application of the research approach in all areas of health care theory and practice […] the approach is useful particularly in research concerned with tertiary and continuing education, patient education, and the experience of patients and heath care workers, and the development and management of health care services. (p. 214)

Phenomenography's strong match with research on health care workers and services was the primary reason I chose to align the current study with this tradition. Phenomenography provided an excellent lens through which to analyze the experiences and perceptions of individual clinicians, as well as the common views and experiences of the professional cohort.

Role of the Researcher

In order to conduct an unbiased study, I explored all preconceptions, thoughts, and feelings related to the research topic before beginning the investigation and continued

to reflect on them throughout the research. This process, known as *bracketing,* mitigated "the potential deleterious effects of unacknowledged preconceptions related to the research" (Tufford & Newman, 2010, p. 81). The method of bracketing that I employed involved keeping a reflexive journal prior to and throughout the research process (Ahern, 1999). Aspects that were explored in the reflexive journal included my reasons for undertaking the research, my position within the power hierarchy of the research, and my personal value system (Hanson, 1994). The reflexive journal allowed me to identify the presence of biases and determine what measures were needed to minimize effects on data.

In addition, interview data were reviewed by another researcher to identify potential interpretation bias. The identities of participants were not disclosed to this individual. Analyses from the other researcher and myself were compared and reviewed for significant interpretation discrepancies. Due to my current position as the director of a nonprofit program with PBD clients, only participants that I did not currently work with were included in the study. In addition, anonymous, unbiased language, and unbiased phrasing were used to probe participants for information during interviews

Reduction was also performed to minimize researcher bias. According to Sokolowski (2000), reduction describes the attempt to have an organic relationship with the environment as much as possible. Smith, Flowers, and Larkin (2009) explained, "We experience it rather than we conceptualize it. In particular it aims to bring into focus the uniqueness of the particular phenomenon to which we are oriented" (p. 14). The process of reduction is not a procedure in which the researcher simply reviews the research simply step-by-step, but analyzes it with heightened awareness to the life surrounding the

research. Together, bracketing and reduction helped separate my personal preconceived ideas during the data gathering and analysis processes in order to produce a study with as little bias as possible.

Methodology

Participants

The sample of this study consisted of 14 licensed mental health clinicians who currently worked in the field of child/adolescent mental health as clinicians. This number of participants was selected to produce a valid cross-section of the group, as recommended by Creswell (2008). Participants were required to meet two primary criteria to be included in the study: possession of a current mental health practitioner license, and at least five years of professional experience with children and adolescents. Five years of experience was chosen because, according to Brenner's (1984) *stages of clinical competence*, at least five to 10 years of experience are typically required to obtain an expert level of clinical expertise. In order to answer the interview questions with purposeful reflection based on perceptions and experiences, it was necessary for participants to be at or near the level of clinical expert.

Participants were solicited via a professional intranet used by mental health professionals, to which I had access. I posted a notice to the board that gave a brief description of the study and asked interested and eligible individuals to respond via e-mail. Of the respondents, I selected a convenience sample of 14 participants who were currently licensed and working with children and adolescents in the Commonwealth of Massachusetts. Once recruited, I provided participants with consent forms and further details about the study. The consent forms explained that a second researcher would be

reviewing data, and that participants' identities would remain unknown to this individual. I then scheduled participant interviews at locations and times convenient to them.

Instrumentation

Data for the present study were collected via individual, semistructured participant interviews. A preliminary list of questions were generated to explore the areas of decision-making related to PBD assessment and diagnosis, as indicated in Appendix B. These questions were based on knowledge gaps that emerged during the literature review process. Due to the small pool of potential participants from the convenience sample, a pilot study was not conducted, as it would have significantly limited the number of participants available for the actual study. However, two validity measures were performed in lieu of a pilot. First, a panel of subject matter experts reviewed the questions for face validity. This panel consisted of three clinical supervisors who oversaw licensed mental health clinicians working with children and adolescents. Verbal feedback from each of the subject matter experts indicated no recommendations for revisions. Thus, no changes to the protocol were made. Once face validity was established, validity of the proposed interview protocol was further assessed using Chenail's (2011) method of interviewing the investigator. Chenail (2011) explained that this technique

> …can serve as a useful first step for investigators to create and revise interview protocols that can help address these IRB concerns, to generate the information proposed, and to assess potential researcher biases especially if the researcher has a strong affinity for the participants being studied or is a member of the population itself. (p. 258)

Interviewing the investigator allowed me to save valuable participants that would be wasted by presenting them with underdeveloped questions. Since I am also a clinician, this technique was useful for provoking a deeper consideration of potential questions. To employ this test of validity, I assumed the role of a participant and enlisted a colleague to conduct the interview using the proposed protocol. The interview was then conducted and recorded. Once completed, we collaborated to review and critique the interview questions to determine if modifications were needed. No necessary changes were apparent, so the interview protocol was successfully validated without revision.

Data Collection

Data for the study were collected via participant interviews. Each interview lasted no longer than 45 minutes. Interviews were digitally recorded and then professionally transcribed. Following each interview, participants were thanked for their participation and told they would receive access to study results upon publication of the research. Additional data were also provided through my reflexive journal.

Prior to the interview, each participant was asked to complete a one-page demographic questionnaire to identify their age, type of clinical license, number of years working with a pediatric population, highest level of education, and current employment status (see Appendix A). After completing the questionnaire, interviews began.

Data Analysis

Once all interviews were transcribed, I conducted a review of all data. In addition, data were screened by another qualified researcher to safeguard against undue bias. This second researcher only had access to the data after it had been analyzed, thereby ensuring

the identities of all participants remained anonymous. The separate analyses were compared and reviewed for significant differences in interpretation.

Because there is no set technique for data analysis in phenomenography (Marton, 1986), I followed the seven steps employed by Sjöström and Dahlgren (2002) during an investigation on the use of phenomenography in a clinical setting. Those steps are described as follows:

1) Familiarization with the material by reading over the interview transcripts.
2) Compilation of answers from all respondents to each question to identify the significant elements in the answers given by each participant.
3) Condensation of individual answers to identify the focal points of longer answers.
4) Preliminary grouping of similar answers.
5) Preliminary comparison of categories to establish borders between categories.
6) Naming the categories to identify and emphasize the essence of each.
7) Contrastive comparison that contains a description of similarities between different categories.

As Sjöström and Dahlgren (2002) pointed out, an important aspect of phenomenographic analysis is determining which aspects of participants' responses are most important. One way to do this was described by Gurwitsch (1964), who posited that crucial aspects of participant responses can be mined by considering the following three domains of consciousness in each response: the *theme*, the *thematic field*, and the *margin*. The theme is the focus of attention; the thematic field is the totality of the data, from

which the theme emerges; and the margin includes data that have no relevance to the themes.

Further, Sjöström and Dahlgren (2002) described helpful indicators for determining the significance of answers, including *frequency*, *position*, and *pregnancy*. Frequency describes how often a statement is repeated; position describes where those statements occur in a respondent's answer (i.e., important elements are often at the beginning of answers); and pregnancy describes a participant's explicit emphasis of certain part of his or her response. These factors will drive data analysis to develop categories that describe how the phenomenon is experienced. Such categories constitute the research outcome. As Sjöström and Dahlgren explained,

> the categories of description constitute the outcome of the research. Conception hereby has a central position in phenomenography. The outcome categories from a phenomenographic analysis do not constitute phenomena in the surrounding world by people's *various ways of thinking* about their experiences. (p. 342)

Consideration was given to the frequency with which similar content appeared in the comments. Specifically, key phrases and words were identified, coded, and used to identify patterns/themes/concepts in responses. Categories and subcategories were created during the coding process to determine possible paths towards theoretical concepts (Saldana, 2009). A phenomenographic content analysis was used to identify similarities and differences between all participant responses. In addition, evolving schemas, themes, and patterns were identified and recorded (Smith, Sells & Clevenger, 1994). Results from the analysis were compiled and are presented in Chapter 4 of this dissertation.

In addition to these methods of data analysis, NVivo 10 software was used to uncover subtle connections and details not detected through the hand coding procedures. Results of the software analysis were stored on a USB memory device, to which only I had access. When not in use, the memory device was stored in the locked file cabinet with other study data. Results from hand coding and NVivo are presented in Chapter 4.

Issues of Trustworthiness

Throughout the interview process, I engaged in reflexive reflection to bracket my assumptions and to develop a richer understanding of participant responses. I did this by keeping a reflexive journal. This process helped me maintain an awareness of potentially subjective judgments that could interfere with valid data analysis. Thorough examination and analysis of participant responses contributed to thick description, which helped ensure transferability. A rich audit trail documented all aspects of the study and leant dependability to the research. In addition, a confirmability audit was performed to ensure that all interpretations were coherent and supported by study data (Cutcliffe & McKenna, 2004). I performed all coding and analysis.

Ethical Procedures

The terms of confidentiality were thoroughly reviewed with each participant. All documentation directly related to any of the participants was kept in a secure location to which only I had access. Each participant was assigned a participant number so that no names were included in the data. After reviewing all documentation generated for study participation, I asked each participant to sign an informed consent document (see Appendix C), approved by Walden University IRB. Participants were informed that participation was 100% voluntary and that they could drop out of the study at any time.

There were no incentives for participation. Within the informed consent document, supports were identified for any participants who needed debriefing due to their involvement in the research.

Summary

This chapter detailed the methodology of the present research related to the assessment, diagnosis, and treatment of PBD. It described the research design, researcher role, and methodology. It also addressed issues of trustworthiness and outlined ethical procedures that were implemented to protect study participants. The next chapter includes a description of study results and analysis. Chapter 5 provides a detailed reflection on study findings, limitations, recommendations, and implications.

Chapter 4: Results

Introduction

The reasons for the increase in the annual rates of PBD diagnoses are unclear. Previous research on PBD makes it difficult to determine if this increase is related to diagnostic errors. A potential reason for the limited understandings of clinicians' diagnostic decision-making processes relates to the dearth of objective diagnostic tools available to mental health professionals (Bhugra et al., 2012). A lack of child-specific diagnostic criteria for bipolar disorder leaves much of the PBD assessment process to the discretion of clinicians, which inevitably involves subjective decision-making (Jenkins et al., 2011).

The purpose of this phenomenographic study was to explore the perceptions and lived experiences of licensed mental health clinicians in the Commonwealth of Massachusetts. Specifically, I explored the decision-making processes employed during the assessment and diagnosis of PBD. The research was guided by the following essential question:

> What are the perceptions and lived experiences of the decision-making processes employed by licensed mental health clinicians in the Commonwealth of Massachusetts regarding the assessment and diagnosis of pediatric bipolar disorder?

This chapter contains a comprehensive presentation of the research results. It includes a description of the research setting and participant demographics. It also details procedures used for data collection and analysis. Issues of trustworthiness are discussed, and study results presented thematically. The chapter concludes with a brief summary.

Setting

Individual participant interviews occurred face-to-face. I met with participants in quiet, undisturbed locations at their places of business. These business locations were the personal offices of participants, which provided private, closed-off spaces for interviews. In addition, interviews were conducted during an undisturbed window of time (such as during lunch breaks or after office hours) to ensure no work-related interruptions took place. I had no direct or immediate professional relationships with any of the participants. There were no personal or organizational conditions that may have influenced participant responses. In order to prevent fatigue, all interviews were limited to 45 minutes.

Participant Demographics

All participants were licensed mental health clinicians currently working in the field of child/adolescent mental health. They all had at least five years of experience and were located in the Commonwealth of Massachusetts. A breakdown of the demographic information for each participant is presented in Table 1.

Table 1

Demographic Information

Participant #	**Age**	**Occupation**	**Years of Experience w/ Children**
1	37	Intensive Clinical Case Manager	15
2	50	Crisis Clinician	30
3	63	Clinical Supervisor	40
4	60	Private Practitioner	30
5	30	Clinical Supervisor	12
6	56	Intensive Clinical Case Manager	19
7	34	Intensive Clinical Case	19

		Manager	
8	35	Intensive Clinical Case Manager	6
9	33	Private Practitioner	6
10	38	Community Mental Health Clinic Therapist	10
11	39	School Clinician	25
12	53	Intensive Clinical Case Manager	26
13	41	Clinical Supervisor	20
14	51	Clinical Supervisor	17

Validity Measures

Two validity measures were conducted on the interview protocol prior to the study, including review by a panel of subject matter experts and assessment via Chenail's (2011) interviewing the investigator technique. For the first measure, I sent copies of the proposed interview protocol to a panel of subject matter experts. This panel consisted of three clinical supervisors who oversaw licensed mental health clinicians working with children and adolescents. After reviewing the protocol, each of the experts called me. Verbal feedback from each of the subject matter experts indicated no recommendations for revisions. Thus, no changes to the protocol were made at that point.

To employ the second measure, interviewing the investigator, I assumed the role of an interview participant and enlisted a colleague to interview me, using the proposed protocol. The interview was conducted and recorded. Once completed, my colleague and I reviewed and critiqued the questions to determine if any modifications were necessary. Because no necessary changes were apparent, the interview protocol was successfully validated without revision.

Data Collection

Data for the study were collected through individual, semistructured participant interviews. Participants included 14 licensed mental health clinicians currently working in the field of child/adolescent mental health. Although 15 participants were anticipated for this study, the small population size and geographic limitations resulted in only 14 participants. Each participant answered the seven questions listed in the interview protocol (see Appendix B). I employed follow-up questions as necessary to probe for further information. All participant interviews were digitally recorded and professionally transcribed. I adhered to the data collection plan described in Chapter 3, and no unusual circumstances arose during the data collection process.

Data Analysis

Following receipt of the interview transcripts, I began data analysis using the process described by Sjöström and Dahlgren (2002). This process included the following steps:

1) Familiarization with the material by reading over the interview transcripts.
   Transcripts were read in their entirety several time before any coding or data organization began.
2) Compilation of answers from all respondents to each question to identify the significant elements in the answers given by each participant.
   A separate document was created for each of the seven interview questions. The researcher copied and pasted interview responses for individual questions from each participant into the corresponding document. The

researcher then reviewed each question and corresponding answers closely to get an idea of any significant elements that appeared to be present.

3) Condensation of individual answers to identify the focal points of longer answers.

   Within each document, participant answers to each question were condensed to help the researcher hone in on significant, emerging elements.

4) Preliminary grouping of similar answers.

   Similar themes/phrases were highlighted with the same color highlighter. Different colors were used to signify different themes/phrases. This was repeated for each of the documents.

5) Preliminary comparison of categories to establish borders between categories.

   After preliminary grouping was complete, each identified theme/phrase category (denoted by specific highlighter colors) was reviewed and compared. Terms or phrases that no longer appeared to "fit" within the other terms/phrases in the category were removed.

6) Naming the categories to identify and emphasize the essence of each.

   After categories were defined, identifying names were assigned.

7) Contrastive comparison that contains a description of similarities between different categories.

   This final step helped the researcher confirm the accuracy of each category defined.

After the above steps were completed, the themes, thematic fields, and margins were assessed to consider participants' domains of consciousness for each response. The

significance of words and phrases used in interview responses was also assessed. By considering the frequency (how often a statement was repeated), position (where those statements occurred in a respondent's answer), and pregnancy (a respondent's explicit emphasis of a certain part of his or her response), I was able to further develop the categories that described how phenomena were experienced by participants.

Key phrases and words were identified, coded, and used to locate patterns, themes, and concepts. Categories and subcategories were created during the coding process to determine potential connections to ethical concepts. I used phenomenographic content analysis to identify similarities and differences between participant responses. Changes in schemas, themes, and patterns were identified as they emerged during analysis. In addition, NVivo 10 software was used to search for subtle connections not detected through the manual coding procedures. I actively searched for negative cases of discrepant data that indicated exceptions to patterns or which modified dominant patterns found in the data. However, no significant discrepancies were found.

Table 2 provides an illustration of the preliminary organization of participant responses that helped the researcher identify the study's overall themes. Frequency is described by the number of participants who expressed the term/phrase.

Table 2

Terms/Phrases in Participant Responses

Question 1	What is the primary factor you believe to be the most important element to explore when assessing for or diagnosing pediatric bipolar?

Cont'd on next page

Terms Used (Participant Frequency)	Mood (5) History (5) Behaviors (2) Mania (2) Cycling (1) Health (1)
Question 2	Based on your experiences and perceptions, what diagnostic factors do you believe are the most important when assessing for or diagnosing pediatric bipolar?
Terms Used (Participant Frequency)	Mood lability (8) Trauma (3) Family dynamics (3) Family history (3) Does not diagnose PBD (3) Medical history (2) Mania (1) Developmental stages (1) Rule out (1)
Question 3	Based on your experiences and perceptions, what diagnostic factors do you believe are the least important when assessing for or diagnosing pediatric bipolar?
Terms Used (Participant Frequency)	All factors are important (5) Parental reporting (4) Diagnosis history (3) Academic performance (3) Aggressiveness (2) School reporting (2) Medication history (1) Speech presentation (1) Hyperactivity (1) Depression (1)
Question 4	Please think back on your clinical experiences and tell me about a recent pediatric bipolar case that was easy for you to assess and diagnose. Please describe the factors that made assessment and diagnosis straightforward.
Terms Used (Participant Frequency)	Never diagnosed (7) Mania (4) Physical presentation (3) Sleep disturbance (2) Family history (2) Continuity of presentation across domains (2) Meets adult criteria (1) Depression (1)
Question 5	Please think back on your clinical experiences and tell me about a recent pediatric bipolar case that was difficult to assess and diagnose. Please describe what factors made assessment and diagnosis most difficult.
Terms Used (Participant Frequency)	Trauma history (10) Family systems/dynamics (6) Need psychiatrist to help diagnose (2) Child unable to self-report due to age (2) Adoption (1) Environmental cause/effect (1) Cognitive delay (1)
Question 6	Based on your experiences and perceptions, please explain what you believe to be the primary differences between the decision-making processes of novice and expert clinicians.

Terms Used (Participant Frequency)	**Novice:** Higher rate of PBD diagnosis (2) Works closely with supervisor to diagnose (1) More apt to diagnose trauma (1) Moldable (1) Influenced by parental reporting (1) Influenced by macro and micro mental health cultural norms (1) **Expert:** Set in ways (1) PBD doesn't exist (1) Mental health culture influences decisions (1) More self-aware (1) Overdiagnosis (1)
Question 7	Please think back on your clinical experiences and guide me through a typical decision-making process when you're presented with a patient that may have pediatric bipolar. Describe the steps you go through to arrive at a diagnostic decision.
Step 1	Family history (6) Symptom history (4) Family dynamics (1) Sleep/eat patterns (1) Developmental history (1)
Step 2	Symptom history (6) Continuity of presentation across domains (4) Strengths (1) Medical history (1) Level of functioning (1)
Step 3	Trauma history (3) Mood/functioning (2) Medical (2) Reaction to being redirected (1) Continuity of presentation across domains (1) Rule out other diagnoses (1) Sleep/eat patterns (1) Refer for other assessment (1) Family history (1)

Evidence of Trustworthiness

I strictly adhered to the trustworthiness strategies described in Chapter 3. During interviews and data analysis, I maintained a state of reflexive reflection to bracket my assumptions, develop a rich understanding of the data, and maintain an awareness of subjectivities that could interfere with analysis. I did this by maintaining a reflexive journal, which was kept throughout the entire research process. When developing categories and identifying themes from the data, I maintained a constant attempt to remain as objective as possible. Each participant response was thoroughly examined to

create thick description and ensure transferability. Respondents were encouraged to provide as much detail as possible and to elaborate with specific examples, when applicable. This helped create thick description by providing rich context for participant responses. When necessary, I probed for additional details, examples, or context. Detailed documentation resulted in a rich audit trail, which enforced the study's dependability. Study documentation included the following: email correspondence with participants, audio recordings from each interview, professional transcripts from each participant interview, preliminary organization of data (as described earlier), manual analysis and coding (individual documents were created for each interview question), and NVivo analysis. Finally, a confirmability audit was performed by each participant to ensure that my interpretations of the data were coherent and supported. After professional transcripts were prepared, a copy of was sent to each corresponding participant to review. This helped to ensure that all transcripts provided an accurate representation of what the participant wished to communicate during interviews. Participants were also given the opportunity to review researcher interpretations. None of the participants expressed any concerns that the transcripts or analyses were misrepresentative of their intended communication.

Results

Several themes surfaced during the coding and analysis of participant interviews (see Table 3). These themes included the following: reticence to diagnose PBD (subthemes: arriving at PBD diagnosis is difficult, lack of firsthand diagnostic experience, and lack of diagnostic tools); disagreement of the importance of diagnostic criteria (subthemes: all diagnostic factors are important, and parental reports are least

helpful); mania may more clearly indicate PBD; some factors can obfuscate PBD assessment/diagnosis (subthemes: trauma history and family dynamics); the processes used to arrive at PBD diagnostic decisions vary; and disagreement on the effect that experience had on the likelihood that a clinician would diagnose PBD. Each of these themes and subthemes are discussed in the following pages. A breakdown of the patterns and themes that arose from each interview question is presented in Table 3. Table 4 provides a breakdown of the patterns and themes for each of the individual interview questions.

Table 3

Main Themes

Theme 1	Reticence to diagnose PBD
- Subtheme A	- Arriving at PBD diagnosis is difficult
- Subtheme B	- Lack of firsthand diagnostic experience
- Subtheme C	- Lack of diagnostic tools
Theme 2	Disagreement of importance of diagnostic criteria
- Subtheme D	- All diagnostic factors important
- Subtheme E	- Parent reports least helpful
Theme 3	Mania may more clearly indicate PBD
Theme 4	Some factors can obfuscate PBD assessment/diagnosis
- Subtheme H	- Trauma
- Subtheme I	- Family dynamics
Theme 5	Processes used to arrive at PBD diagnostic decisions vary
Theme 6	Disagreement on the effect that experience had on the likelihood that a clinician would diagnose PBD

Table 4

Patterns/Themes for Individual Interview Questions

Q1: What is the primary factor you believe to be the most important element to explore when assessing for or diagnosing pediatric bipolar?	
Mood presentation	5
History of presentation	5
Family history	4
Q2: Based on your experiences and perceptions, what diagnostic factors do you believe are the most important when assessing for or diagnosing pediatric bipolar?	
Mood presentation	8
Sleep/Appetite changes	6
Continuity of presentation across domains	5
Q3: Based on your experiences and perceptions, what diagnostic factors do you believe are the least important when assessing for or diagnosing pediatric bipolar?	
All factors are important	5

Parental reporting	4
Diagnosis history	3
Q4: Please think back on your clinical experiences and tell me about a recent pediatric bipolar case that was easy for you to assess and diagnose. Please describe the factors that made assessment and diagnosis straightforward.	
Never diagnosed PBD	7
Mania	4
Physical presentation	3
Q5: Please think back on your clinical experiences and tell me about a recent pediatric bipolar case that was difficult to assess and diagnose. Please describe what factors made assessment and diagnosis most difficult.	
Trauma history	10
Family dynamics/systems	6
Needed psychiatrist/psychologist to diagnose	2
Child too young to accurately self-report	2
Q6: Based on your experiences and perceptions, please explain what you believe to be the primary differences between the decision-making processes of novice and expert clinicians.	
Novices:	
Use concrete parameters	6
Lack confidence	4
Underdiagnose PBD	3
Experts:	
Assess all domains for presentation continuity	4
Slower to diagnose	2
Have more experience	2
More intuitive	2
Appropriately diagnose PBD	2
Q7: Please think back on your clinical experiences and guide me through a typical decision-making process when you're presented with a patient that may have pediatric bipolar. Describe the steps you go through to arrive at a diagnostic decision.	
Step 1:	
Family history	6
Symptom history	4
Family dynamics	1
Sleep/eat changes	1
Developmental history	1
Step 2:	
Symptom history	6
Continuity of presentation across domains	4
Strengths	1
Medical history	1
Level of functioning	1
Step 3:	
Trauma history	3
Mood/functioning	2
Medical	2
Reaction to rejection	1
Continuity of presentation across domains	1
Rule out other diagnoses	1
Sleep/eat	1
Refer for other assessment	1
Family history	1

Reticence to Diagnose PBD

Most participants described a conservative approach to PBD diagnosis, and would consider it only after other possibilities were exhausted. For example, Participant 10 explained, “I’m actually more conservative about diagnosing it [PBD]. I’m much more likely to say unspecified mood disorder then go with bipolar.” When asked about the

most important elements to explore during assessment, Participant 3 said "It's hard to even say because I am so reluctant to even diagnose it… it's one of my last resorts."

Arriving at a PBD diagnosis is difficult. Participants' reluctance to diagnose led to the emergence of Subtheme A, the perception that arriving at a PBD diagnosis could be very challenging. For example, when Participant 3 was asked to describe a recent case that was easy to diagnose, the individual replied, "I have none of those." Similarly, Participant 10 stated, "I can't think of a straightforward diagnosis of pediatric bipolar. I feel like it's never simple."

Lack of firsthand diagnostic experience. Seven of the participants reported they had never individually diagnosed PBD. Participant 4 had never diagnosed a PBD case, explaining that because there are so many factors that need to be considered, PBD is a "complicated and differential diagnosis around trauma, around attachment issues." The participant continued, "I don't know that there is an easy way to diagnose" unless there was "a medical test that identifies something in the blood that says they have bipolar." Participant 14 echoed this sentiment: "I have a hard time with the pediatric bipolar diagnosis. I think for kids there are so many factors when you're under 17 that contribute." Participant 8 also revealed never making a PBD diagnosis, expressing a personal discomfort with diagnosing PBD due to clinical experience that was primarily in a crisis setting. Participants 3 and 11 explained any PBD diagnosis they had been involved with was done with the assistance of a psychiatrist.

Lack of diagnostic tools. Participants also discussed a lack of diagnostic tools for PBD, which can make the assessment and diagnostic process more difficult. As a result, some clinicians may shy away from diagnosing PBD. Participant 3 described the vague

nature of existing DSM criteria for bipolar disorder: “It’s easier to go through DSM, which it’s not concrete necessarily. I mean it is concrete and so much can fit into the symptoms.” Participant 4 admitted a lack of familiarity with available PBD assessment tools: “In terms of assessment tools, I don't have knowledge so in terms of screening with assessment tools I really don't have that, other than child behavioral checklist or things about collecting resources from people.” Participant 4 later added, “there are just so many factors that go into understanding a kid that to say ‘it’s this’ [PBD], unless there is a medical test that identifies something in the blood that says they have bipolar.” Participant 6 explained that “in the younger kids, [PBD is] difficult to catch for those reasons—that child is not really able to accurately report what's happening, in a way that would be [described] in the DSM-V now.”

Disagreement on Importance of Diagnostic Criteria

Another theme that emerged was a disparity in the diagnostic criteria that participants believed to be most important when assessing and diagnosing PBD. When asked, *Based on your experiences and perceptions, what diagnostic factors do you believe are the most important when assessing for or diagnosing pediatric bipolar*” clinicians reported mood presentation (5), history of symptoms (5), and family mental health history (4). Four clinicians described family history as the primary factor to explore during PBD assessment/diagnosis, and five clinicians described the history of symptom presentation to be most important.

Participants considered a variety of factors when assessing for PBD, but mood lability and sleep/appetite disturbances were most frequently cited. For example, Participant 11 stated, “You look at mood, sleep, just daily functioning, time table, how

long has it been happening, previous diagnoses, impact on the child. I would want to, for bipolar diagnosis, really have conversations with the school and others treating the child." Participant 7 stated the "inability to regulate, the inability to even recognize their emotional control or need for emotional control" was a primary consideration. Participant 7 added, "I have always taken a big look at the parent's perception of things just because obviously they will see things much more [clearly] than the children." When describing the assessment process, Participant 6 stated, "I start with the basics; eat, sleep, how is that working for you, depending on the age of course. So, I do like to start off with those things because I'm looking medically at what's happening for this kid. If they can't sleep, if they absolutely cannot sleep, and it does not matter if it's a Saturday or a Monday or this lack of sleep … isn't influenced by any sort of situational issues, that I think is a biggie."

All factors are important. Most participants agreed that it is important to consider all factors when assessing for or diagnosing PBD. Participant 5 stated, "I would say they are all important." Participant 4 echoed this sentiment, emphasizing the importance of considering diet: "I don't know what you wouldn't take into consideration in diagnosing. I would even go back and say nutrition is an important factor… what's the kid eating? What are the sugar levels? Whether they are getting carbohydrates. I don't know what wouldn't be important." Participant 2 also emphasized the importance of all factors, including diet: "That's hard to say because I think all the factors play in things like diet. If kids are bipolar we know that a gluten-free diet makes it easier for them to manage the mood."

Parental reports are least helpful. Five participants believed that although parental reports should be considered, they are least helpful during PBD assessment. Participant 9 explained, "I've had a lot of parents present that their child is bipolar and they are nowhere near that. They just think that is kind of the catch all phrase right now." Referring to the percentage of parents who believe their children are bipolar, Participant 9 later added "I would say it' a really high number that the parents are wrong about their child being bipolar." Participant 13 explained, "Sometimes parent's comments aren't too helpful. I think parents can sometimes read into [symptoms] too much." Participant 3 explained "[the] least important [factors] are parents saying that they [their children] are bipolar because everybody says kids are bipolar. That would not be anything that I would pay any attention to." Along these same lines, Participant 5 stated, "Because there is such a huge misperception of what bipolar disorder actually is, I'm actually very hesitant to rely on any external reports from parents or from schools."

Mania May More Clearly Indicate PBD

Despite unclear diagnostic criteria and potentially obfuscating factors, many participants indicated that mania may more clearly indicate PBD than other symptoms. Based on their past diagnostic experiences, some participants reported that symptom presentation of mania made PBD diagnosis easier and more straightforward. Participant 5 shared an example of a patient who demonstrated mania, which was captured on video. This illuminated the diagnosis process for the clinician: "I had one a year and a half ago that was, I'll be very generic, that she was 7 or 8 and [her parents] had previously sought treatment from 2 other providers, had a lot of concrete information, including video tapes of the child when she was manic, and it was very clear, very classic mania and it was

quite bizarre because the child saying things like 'I want to redo my entire room,' [and] starting ripping stuff off the walls. [It was] very similar to adult bipolar disorder, with that kind of euphoria and impulsivity. So having that very concrete, diagnostic material was really helpful."

Similarly, Participant 9 also expressed a belief that the presence of "the classic kind of bipolar symptomology that we see in adults, more like the mania" helped make diagnosis of PBD more straightforward. Participant 6 stated: "I would say mania. I think that is a factor that distinguishes the diagnosis from, say, depression, and even some types of PTSD or ADHD." When asked about the primary factor used to assess PBD, Participant 10 responded: "I guess manic episodes, I mean, if I'm looking to differentiate from it being just a depression or defiant thing, or something like that."

Some Factors May Obfuscate PBD Assessment/Diagnosis

Just as some factors and symptoms seemed to help delineate a PBD diagnosis from other issues or disorders, other factors could obscure the diagnostic process. During analysis, the subthemes of trauma history and family dynamics emerged as potentially problematic factors.

Trauma history. Ten participants reported that trauma history and family dynamics could make PBD assessment/diagnosis very difficult. Participant 1 stated, "I think most kids who are diagnosed with this disorder have a trauma history, and so instead of looking at the trauma history and going that way, and tailoring the intervention based on the trauma, I think people automatically sort of label kids as bipolar… and I feel it is a disservice to the family and to the child." Participant 2 explained, "When I see a kid whose folks are thinking bipolar, and there is no family history, and we can trace the

symptoms back to a traumatic event or maybe some attachment related stuff, then I start to think more that this is trauma versus bipolar."

After sharing an example of a difficult case involving serious patient trauma, Participant 3 concluded, "I think it's very difficult to make that assessment [PBD] even though there are lots of symptoms that would go with that." Participant 4 posited that the most difficult diagnosis factors included "Trauma history and differentiating the experience of what led to trauma history, with flashbacks, and with triggers, and sorting that out from mood swings or mood disorders." In complex cases, Participant 4 added: "it's really hard to tell whether it's a bipolar disorder or if it's a trauma, social, or emotional issue." While Participant 9 suggested that exploring symptom presentation is important, it is also important to "rule out any trauma background and history, because a lot of times, [trauma] can make a child present like it's pediatric bipolar, and it's really more of a trauma thing." Additional statements related to trauma are outlined in table 5.4.

Table 5

Additional References to Trauma

Participant 2	So you want to consider trauma because oftentimes kids with severe trauma can look like a bipolar kid when really what we are looking at are serious symptoms related to traumatic events.
Participant 3	What made it really difficult is because there was so much trauma and that could easily look bipolar.
Participant 4	What made it most difficult? Trauma history and differentiating the experiences of what led to trauma history.
Participant 6	If there is some kind of trauma that is occurring, you have to cess through all of that to see, are we looking at trauma-induced, aggravated response.
Participant 7	But it can be tough, kind of like ADHD and trauma sometimes just the symptoms mirror each other so significantly.
Participant 8	Also if there was evidence of a trauma history that would at least provide a framework of a differential diagnosis versus just a standard bipolar.
Participant 12	I think a novice would say that's bipolar, but not realize in a pediatric case, [symptoms can] look a lot like an ADHD kiddo. Sometimes the trauma piece will look similar.

Family dynamics. Many participants also indicated that family dynamics could obscure accurate PBD diagnosis. For this reason, an emphasis was placed on exploring what was going on in patients' home lives to help distinguish between family elements and factors that could indicate PBD. Six participants reported that the most important diagnostic factors for PBD included assessing family history and dynamics. When describing their decision-making processes for PBD assessment and diagnosis, six participants described a family history assessment as their first step. Participant 4 explained, "family dynamics is really important to kind of ferret out – is it a systems issues that the kid is carrying, or acting out, or living, or responding to? And so I think that is an important part." Participant 5 shared a relevant example to support the importance of exploring family dynamics: "I had a 6-year-old who came in with Mom. Mom and Dad were separated, a lot of family discord, no history of mental illness in the family, except Mom had fairly severe OCD symptoms and came in reporting a lot of mood dysregulation, not a lot of clear mania symptoms, but kind of that pseudo now I would think more of the pediatric mood dysregulation disorder, much more tantrum based, but it was a long time before we could track stuff and get a clear picture of what was happening to actually figure out what mood stabilizer would be helpful and then the parents didn't follow through."

Participant 6 added to this subtheme of family dynamics: "You have to look at the psychosocial pieces, too. If there is a lot of instability in the family, just in the living situation, if there is some kind of trauma that is occurring, you have to cess through all of that to see." Because trauma history is so important to ascertain, children with unknown histories, as in the case of adoption, can be particularly challenging to assess. Participant

12 elaborated: “It’s really hard when a kid was adopted and you don’t have the information from the family of origin. You really need a good family history in order to grasp what all those nuances are and how to really differentiate between a bipolar and ADHD or trauma.”

Processes Used to Arrive at PBD Diagnostic Decisions Vary

Participants described a variety of steps used to arrive at diagnostic decisions. This makes sense because clear diagnostic criteria for PBD do not exist. As a result, clinicians are left to do the best they can with the information, tools, and training they have available. The most commonly cited criteria (by nine clinicians) included the continuity of symptom presentation across domains (home, school, and community), patient symptom history, and family mental health history. Participant 2 described the intricate details involved in his/her diagnostic process: “So, then I want to know how long have these symptoms have been going on? Do they seem to have any type of a pattern? Do they seem to occur more often in the daytime? Are there certain times of day or certain activities that are going on in the kids life that we might see more of these symptoms. Some kids don’t transition well so those types of things might trigger an outburst or something like that. I want to know how long this has been going on. I want to know how do they react when you try to redirect them or what types of things are helpful? What are their sleeping patterns look like? Do you see changes in their physical activity and things like that? I want to see do they respond differently in the same types of settings at different times? Is it impacting their interactions with their peers? What are we seeing at school? Are the symptoms present across all domains or only in some domains?”

Similarly, Participant 4 described a complex clinical decision-making process: “I would meet with the parents, usually I meet with the parents first without the kid present. It also depends on the age of the kid if they are older, I might meet with them first, if they are a teenager, I might meet with them first or if the first session separate out the time. I don’t really like having the kids present when the parents tell me all the problems they are having because it just reinforces the kid's problem. It doesn’t help the kid's self-esteem, and what you get is the family dynamics when I'm diagnosing, I don't what to do that. I will meet with the kid alone. I always ask about strengths to the parents and to the kids what are the strengths, what are the things that you enjoy doing, how do they make you laugh, besides just the struggle with it. I ask the parents what their theory is as to what it is, what's going on. I ask the kid, ‘so how come you think this happened?’ and I ask them to start thinking ‘what goes on in your head.’ So, I try to get them to start identifying what is going on or even giving them the idea that they can identifying what’s going on inside of them, then I would go to the multiple resources; school, coach, I really don't talk to coaches, but I would try to get a sense from the family and the kid what do these people think. If I was getting a whole lot of contradictory reports, I might talk to somebody like a coach or a school guidance counselor, I might talk to.”

While most of the participants described complex processes for arriving at diagnostic decisions, the order of steps and the emphasis on factors varied. For example, when describing the first step of their process, six participants stated family history, four described symptom history, and four described family dynamics. When describing their second step, six participants described symptom history and four described continuity of symptoms. Nine out of the thirteen participants who answered the question included the

following in their decision-making process: continuity of symptom presentation across domains, symptom history, and family history. While there were similarities in the decision-making processes of many participants, there was no uniformity. It is also important to note that six of the thirteen participants who *did* describe their decision-making processes for PBD, had admitted earlier in their interviews that they had no individual experience diagnosing the disorder.

Disagreement on the Effect of Experience

The final theme that emerged from data analysis was a disagreement among participants regarding the effect that clinical experience had on an individual's likelihood of arriving at a PBD diagnosis. While all participants were experts, according to Benner's (1984) five stages of clinical competence, they viewed the differences between novice and expert clinicians differently. For example, two participants explained that experts were less likely to diagnose PBD cases, while two others believed that experts were more likely to appropriately diagnose PBD. On the other hand, four other participants posited that novices were more likely to underdiagnose, while two argued that they were more likely to have higher rates of PBD diagnoses. Because there was such disparities in participants' answers to question #7, no strong patterns or themes emerged.

Summary

The results of this study provided rich insight into the research question: What are the perceptions and lived experiences of the decision-making processes employed by licensed mental health clinicians in the Commonwealth of Massachusetts regarding the assessment and diagnosis of pediatric bipolar disorder? The major themes that emerged included: reticence to diagnose PBD (subthemes: arriving at PBD diagnosis is difficult,

lack of firsthand diagnostic experience, and lack of diagnostic tools); disagreement of the importance of diagnostic criteria (subthemes: all diagnostic factors are important, and parental reports are least helpful); mania may more clearly indicated PBD; some factors can obfuscate PBD assessment/diagnosis (subthemes: trauma history and family dynamics); the processes used to arrive at PBD diagnostic decisions vary; and disagreement on the effect that experience had on the likelihood that a clinician would diagnose PBD. Analysis of participant interviews revealed many opportunities for future research, which will be discussed in Chapter 5. The following chapter also includes an interpretation of the study results and a discussion of implications for social change.

Chapter 5: Discussion

Introduction

The purpose of this phenomenographic study was to explore the perceptions and lived experiences of licensed mental health clinicians related to decision-making processes employed during PBD assessment and diagnosis. Results were evaluated and will be discussed in this chapter, against Croskerry's (2009) dual process model. The aim of this research was to provide a foundation for future empirical studies on the clinical decision-making processes of PBD assessment and diagnosis, and to determine if more objective, diagnostic criteria are needed.

Several important themes emerged from the research. First, the data indicated that participants were reticent to diagnose PBD, which may have been because the disorder is difficult to diagnose. Reticence may have also been due to a lack of firsthand diagnostic experience or inadequate diagnostic tools. Participants were also in disagreement on the importance of diagnostic criteria, but suggested that the presence of mania may be the most clear indicator of PBD. Data indicated that some factors, such as trauma and family dynamics, could obscure the PBD assessment and diagnosis process. They also reported using a variety of different steps to assess for PBD. Participants disagreed on the effect that experience had on the likelihood that clinicians would diagnosis a child with PBD. One of the most significant findings was that half of the participants had never individually diagnosed a case of PBD.

Decision Making

Croskerry's (2009) dual process model of decision making formed the theoretical framework for this study. According to the model, there are two processes involved in decision making: intuitive and analytical.

Intuitive processes involve context and are affected by ambient conditions, the difficulty and ambiguity of tasks, and affective state (Croskerry, 2009)**.** Analytical processes are affected by intellect, education, critical thinking skills, training, rationality, logical competence, and feedback (Croskerry, 2009). Pattern recognition is the main feature of the dual process model. Once a clinician recognizes a pattern, one process will usually prevail. However, if a pattern or condition is not recognized, analytical processes will dominate. When asked to describe their decision-making processes for patients that present with symptoms that may indicate PBD, all participants described some form of pattern-seeking. Participants described looking for patterns in sleep, appetite, situational changes (such as moving), hormonal disruptions (such as pubertal development), mood dysregulation, interest in school, grades, activity levels, or patient responses in different types of settings.

Findings from this study are consistent with those presented by Bhugra et al. (2012). In line with the dual process model, most participants began their assessment processes by searching for behavioral patterns. From there, they described analytical or intuitive processes they may engage in, depending on whether or not they were able to identify any patterns. Even though, according to Benner's (1984) definition, all of the participants of this study were experts in their field, participants reported a heavy reliance on the analytical processes described in Croskerry's (2009) dual process model. This

emphasis on concrete evidence, rather than intuitive instincts developed from professional experiences, was an unexpected finding. It was interesting that participants described novice clinicians as those who were more likely to rely on concrete parameters, and experts as those who were more likely to utilize their experiences and intuitions to assess patients; yet the participants of this study were experts who reported a predominant use of analytical processes.

Interpretation of Findings

Some of the findings from the present study correlate with those of past researchers, while others seem relatively novel. The following section will include an analysis of research results against the studies discussed in Chapter 2 of this dissertation.

Inconsistencies in Diagnostic Processes

Major inconsistencies were reported in the assessment and diagnostic decision-making processes employed by participants. Clinicians varied on the factors they believed to be most important during PBD assessment and diagnosis, and reported several different strategies for assessing patients who presented with symptoms that were potentially indicative of PBD. According to Croskerry's (2009) dual process model, intuitive processes, analytical processes, and pattern recognition were reported by participants, but to varying degrees. This issue of inconsistency is present throughout much of the current research on PBD (Baca-Garcia et al., 2007; Ruggero et al., 2010). For example, Ruggero et al. (2010) reported that diagnostic inconsistencies for BD can reach as high as 91%, depending on the assessment used. Since only one participant in this study mentioned use of the specific diagnostic instruments available for PBD (other than the DSM-IV), it is possible that diagnostic inconsistencies without the use of

assessment instruments may differ. Due to increased rates of comorbidities, increased psychopathology, and premorbid adjustment, diagnosis for BD in children can become even more complex (Ruggero et al., 2010). According to Ruggero et al., diagnostic inconsistencies are often the result of assessment errors.

Comorbidity

Although the diagnostic challenges associated with the presentation of comorbid conditions was a theme repeated throughout much of the current literature on PBD (Antoniadis et al., 2010; Bradfield, 2010; Corry et al., 2013; Faedda et al., 2004; Friborg et al., 2014; McDougall, 2009; Serrano et al., 2013; Scribante, 2009; Vieta & Suppes, 2008), comorbidities were not a challenge that many participants specifically discussed. Participants alluded to the importance of ruling out other problems, but few specifically talked about looking for other common comorbid conditions that can sometimes present as PBD, such as ADHD (McDougall, 2009; Scribante, 2009; Serrano et al., 2013), anxiety (Corry et al., 2013), personality disorders (Antoniadis et al., 2012), oppositional defiant disorder (Bradfield, 2010), and major depressive disorder (Vieta et al., 2008). This concept of ruling out, via identification of other conditions, is an analytical process of the dual process model (Croskerry, 2009).

Despite high levels of comorbidity between PBD and anxiety disorders, two participants (6 & 8) specifically stated that anxiety was a symptom they considered least important during the assessment and diagnostic process. The rule out processes described most often entailed searching for previous trauma, which could present as PBD, rather than looking for other conditions or comorbidities. Some participants did discuss the

importance of ruling out ADHD, but only Participant 4 discussed using any assessments or instruments to test for other conditions, such as ADHD.

Participants also emphasized the recognition of manic or hyperactive behaviors, but did not discuss the other behavioral extreme of PBD—major depressive episodes. Depression is an important consideration because previous bouts of severe depression can increase a child's risk for developing PBD (McDougall, 2009). Clinicians' lack of attention to depression, or hypomaniac episodes, can result in an inaccurate diagnosis of unipolar, rather than bipolar, depression (Vieta et al., 2008).

Emphasis on Trauma

An interesting finding from this study was the large emphasis that participants placed on trauma. Researchers have discovered that trauma, such as that from posttraumatic stress disorder, can be a comorbidity of BD (Corry et al., 2013). The identification of trauma involved all three components of Croskerry's (2009) dual process model (intuition, analysis, and pattern recognition). However, participants from this research emphasized the importance of ruling out trauma because symptoms of trauma can be confused with those of PBD.

Limitations

There were some limitations inherent to this study. An unexpected limitation was that half of the participants had never diagnosed PBD on their own. The exclusion of nonlicensed clinicians may have presented another limitation, as those individuals may have had valuable insight on the assessment process. The difficult nature of the PBD assessment and diagnosis may have made it difficult for participants to describe their perceptions and experiences related to it. Finally, in retrospect, additional valuable data

may have been gathered if participants were asked to define PBD at the beginning of the interviews. It would have also been enlightening to ask participants to rate their level of expertise with PBD assessment prior to interviews. Although 5+ years of experience would result in categorization of all participants as experts by Benner's (1984) standards, participants of this study indicated heavy reliance on analytical decision-making patterns, which one would expect to see in novice clinicians.

Recommendations

Several recommendations for future research arose from the current study. First, the percentage of participants who had individual experience with diagnosing PBD was low, especially considering they were all experts in their field and possessed licenses to diagnose the disorder. This finding does not correlate with the current rise in rates of PBD diagnoses. If the PBD rate has significantly increased, yet the expert participants in this study expressed reticence to deliver PBD diagnoses, further investigation is needed to determine who are delivering these PBD diagnoses. Perhaps a small number of clinicians account for a large percentage of diagnosed cases of PBD. If that is the case, further research is warranted to understand the reasons. Additional research is also warranted to investigate why some clinicians are uncomfortable diagnosing PBD.

Because the current study was geographically limited to licensed clinicians in the Commonwealth of Massachusetts, future researchers should explore the perceptions and lived experiences of clinicians in other geographic locations to determine if geography affects PBD diagnosis rates. In addition, while participants did describe symptoms and diagnostic criteria, there was virtually no mention of any of the available PBD assessment instruments described in Chapter 2 (other than the DSM-IV), including: the WASH-U-

KSADS (Geller et al., 1996); the Child Mania Rating Scale–Parent Version (Pavuluri et al., 2006); the CBCL (Achenbach & Edelbrock, 1991); the P-YMRS (Gracious et al., 2002); the GBI (Depeu et al., 1989); the P-GBI (Depue et al., 1989); the K-SADS-PL (Kaufman et al., 1997); or the YSR (Achenbach, 1991). While no perfect, objective PBD assessment instrument exists, it was surprising that only one participant mentioned any of the available assessments (Participant 4 briefly discussed the CBCL). Future research should explore clinicians' familiarity with these instruments.

The emphasis that participants placed on trauma during PBD assessment and diagnosis is another topic that deserves more attention. Because so many of the participants discussed the challenges of distinguishing trauma from PBD, it may be helpful to develop an assessment instrument to assist clinicians with differentiating between behaviors that result from trauma and those that are indicative of PBD. It would also be valuable to explore clinicians' perceptions and experiences regarding trauma and PBD by investigating what symptoms of trauma are reminiscent of PBD, and what tactics they can use to distinguish the two, especially in cases with limited patient histories or where patients may be too young or traumatized to discuss the events.

Finally, some participants mentioned the importance of exploring patients' diets as possible factors. Future researchers could explore what clinicians understand and perceive about possible nutritional links with PBD or other pediatric behavioral disorders.

Implications

Some important implications resulted from this research. First, the study revealed that clinicians are reticent to diagnose PBD, which runs contrary to the current rising trend in PBD diagnoses. Consequently, there is a possibility that some clinicians are far

more likely to diagnose PBD than others are. Such discrepancies may be because no clear procedures for PBD diagnoses have been instituted. Because only one participant mentioned one of the available inventories that may be useful in specifically assessing for PBD, it is also possible that clinicians are unaware of the tools that are available. Even though all of the instruments discussed in Chapter 2 have shortcomings, they may still help clinicians wade through the ocean of symptom presentation, comorbidities, and other behavioral disorders before making decisions related to PBD. The implication of this finding is that clinicians may not be aware of, or trained to use, the inventories that are available for PBD assessment. It is critical that clinicians working with children and adolescents, and who possess the licensure to diagnose PBD, are aware of all the tools that may assist them during PBD assessment and diagnosis. Until a more objective test (such as a blood test or genetic screening) is available to clinicians, the available inventories should be utilized to help professionals most accurately assess and diagnose PBD.

Participants' hesitance to diagnose PBD and the incongruences in diagnostic decision-making processes makes it clear that problems exist in the assessment and diagnosis processes implemented for PBD. Although subjectivities are inevitable, clinicians should have relatively similar processes for assessing and diagnosing disorders for which no objective tests exist. If PBD is to be viewed as a legitimate disorder, clinicians must be provided with specific assessment and diagnostic processes to increase the likelihood that multiple clinicians assessing the same case will arrive at the same diagnosis.

Another potentially important implication of this research was the lack of value that many participants believed parental reporting had in the PBD assessment and diagnosis process. If clinicians believe that parents inaccurately report their children's symptoms, it is important to understand what they believe the cause of these inaccuracies to be (i.e., because parents are out of touch, incapable of providing clinically relevant descriptions of their children's behaviors, are eager to arrive at a diagnosis, etc.). If there is a problem with the methods parents use to report on their children's behaviors, parents may need to be given directions or assessment instruments to help them provide clinicians with more useful feedback.

This study also echoes the question raised by other researchers (Bradfield, 2010; Breggins, 2008; Faedda et al., 2004; Jenkins et al., 2011; Scribante, 2009; Serrano et al., 2013) of whether or not children and adolescents are receiving the correct diagnoses. Since PBD management usually includes prescription medication with potentially significant side effects (Littrell & Lyons, 2010; McDougall, 2009), it is incredibly important that patients be correctly diagnosed first. Incorrect diagnosis can lead to improper prescription treatment.

Conclusion

The findings from this study provided many interesting insights on PBD assessment and diagnosis processes, as well as several directions for future research. Data from participant interviews indicated that significant issues related to PBD assessment and diagnosis may exist, including inconsistencies in assessment/diagnostic processes, clinicians' reticence to diagnose the disorder, failure to use available assessment instruments, a lack of attention to ruling out comorbid conditions, inconsistencies in what

clinicians believe to be the most important diagnostic criteria, and trouble differentiating between PBD symptoms and other issues, such as trauma or dysfunctional family dynamics. To ensure that clinicians diagnose children as accurately as possible, it is crucial to revise the assessment and diagnosis processes employed for PBD. Until an objective test is available (such as a genetic test or biological marker), clinicians must make the most use of available assessment tools. In addition, it is important that a clear, universally-accepted definition of PBD be created and followed. In conjunction with better guidance for PBD assessment and diagnosis, clinicians may be able to feel more confident with the process and, ultimately, generate diagnoses that are more accurate.

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Appendix A: Demographic Information

1. First name:_____
2. Age:_____
3. Type of clinical license:_____
4. Years worked with children:_____
5. Level of education completed:_____
6. Current job:_____

Appendix B: Interview Questions

The researcher will ask the following questions to collect data pertaining to diagnosing process of pediatric bipolar disorder by Massachusetts licensed mental-health clinicians.

1. What is the primary factor you believe to be the most important element to explore when assessing for or diagnosing PBD?

2. Based on your experiences and perceptions, what diagnostic factors do you believe are the most important when assessing for or diagnosing PBD?

3. Based on your experiences and perceptions, what diagnostic factors do you believe are the least important when assessing for or diagnosing PBD?

4. Please think back on your clinical experiences and tell me about a recent PBD case that was easy for you to assess and diagnose. Please describe the factors that made assessment and diagnosis straightforward.

5. Please think back on your clinical experiences and tell me about a recent PBD case that was difficult to assess and diagnose. Please describe what factors made assessment and diagnosis most difficult.

6. According to Benner's (1984) five stages of clinical competence, clinical novices (stage 1) and experts (stage 5) are defined as follows:

Novice: Aside from formal education, a novice is one who has no applied experience in the situations he or she is expected to perform. Novices typically lack confidence and require verbal and physical cues from more experienced peers. They also lack the experience needed to exhibit discretionary judgment.

Expert: Expert clinicians have an intuitive grasp of professional situations and are able to accurately identify problems and corresponding solutions without wasteful consideration of alternative diagnoses and solutions. Experts operate out of an ability to develop a deep understand of the totality of a situation. Their performance is fluid, flexible, and proficient.

Based on your experiences and perceptions, please explain what you believe to be the primary differences between the decision-making processes of novices and experts.

7. Please think back on your clinical experiences and guide me through a typical decision-making process when you're presented with a patient that may have PBD. Describe the steps you go through to arrive at a diagnostic decision.

Appendix C: Participant Consent Form

This proposed qualitative phenomenography research will be based on interviewing licensed mental health clinicians to gather information about their lived experiences in assessing and diagnosing pediatric bipolar disorder. The title of the study is Decision-Making and Pediatric Bipolar Disorder Assessment/Diagnosis: A Phenomengraphic Study. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part.

This study is being conducted by a researcher named Kristen Davies, who is a doctoral student at Walden University.

Background Information:

Procedures:
If you agree to be in this study, you will be asked to:

- Schedule a 30-45 minute phone interview with researcher
- There will only be one interview for data collection
- Answer six questions asked by the researcher
- Interviews will be audio recorded
- Analyzed data will be reviewed by Dr. Steve James to ensure against any existing bias by the primary researcher. The primary researcher has professional experience diagnosing children/adolescents.

Voluntary Nature of the Study:
This study is voluntary. Everyone will respect your decision of whether or not you choose to be in the study. If you decide to join the study now, you can still change your mind later. You may stop at any time.

Risks and Benefits of Being in the Study:
Being in this type of study involves some risk of the minor discomforts that can be encountered in daily life, such as fatigue, stress or becoming upset. Being in this study would not pose risk to your safety or wellbeing.

The purpose of this phenomenographical qualitative study is to explore the perceptions and experiences of the decision-making processes that affect the ways licensed mental health clinicians assess and diagnose PBD.

Privacy:
Any information you provide will be kept confidential. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in the study reports. Data will be kept secure in a locked and fire proof filing cabinet. Data will be kept for a period of at least 5 years, as required by the university.

Contacts and Questions:

You may ask any questions you have now. Or if you have questions later, you may contact the researcher via email [redacted] or phone [redacted]. If you want to talk privately about your rights as a participant, you can call [redacted]. She is the Walden University representative who can discuss this with you. Her phone number is [redacted], extension [redacted]. Walden University's approval number for this study is and it expires on

The researcher will give you a copy of this form to keep.

Statement of Consent:
I have read the above information and I feel I understand the study well enough to make a decision about my involvement. By signing below, I understand that I am agreeing to the terms described above.

Printed Name of Participant _____

Date of consent _____

Participant's Signature _____

Researcher's Signature _____