

A QUALITATIVE EXPLORATION OF PREDISPOSING FACTORS OF BIPOLAR DISORDER

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Abstract

Bipolar disorder is a mood disorder that affects around forty million people worldwide (WHO, 2019). This highlights the importance of treatment and the need for preventive measures amongst the vulnerable population. Furthermore, it is an important prerequisite to understand the traits and requisites of individuals who are vulnerable to this disorder and what causes this susceptibility. To understand this foremost concern, a qualitative exploration was carried out on predisposing factors linked with the development of bipolar disorder. The prevalence of mood disorder is most common in early adulthood, and this population was targeted for retrospectively understanding the elements of vulnerability. The data was collected from bipolar patients and clinical psychologists using in-depth interview protocols and was analyzed using NVIVO-14 software. Thematic analysis of the qualitative data yielded six themes of genetic factors, premorbid personality, home environment, childhood traits, adverse childhood events, and brain injury. The results of the study suggest that awareness among caregivers about the history of psychiatric illness in the family is very important for getting help in time, leading to better management and accurate diagnosis. Furthermore, this study aims at providing insight amongst parents so they can provide a nurturing environment to their children. This is possible by keeping all the important facets in mind that can lead to prevention of mood disorders among the vulnerable population.

Keywords:

Bipolar Disorder, Predisposing Factors, Bipolar Patients, Clinical Psychologists, Vulnerable Population, Thematic Analysis

Introduction

Episodic mood disturbances have been classically defined as bipolar disorder. According to new researches, multisystem participation should be considered as a pre-requisite rather than an exception. Circadian rhythm abnormalities, cognitive impairment, and a significant medical burden commonly accompany mood instability. These researches led medical practitioners to report and answer questions about bipolar disorder (BD) having associated medical factors that contributes to the complexity of the disease. Such as the knowledge and understanding of how the medical burden of bipolar disorder (BD) is related not only to age but also to the length and type of symptomologies associated with it must be addressed. This will particularly aid in developing preventive and screening measures among the vulnerable population. It is of utmost importance to revise and clarify the mediating role of disease burden with its link to response towards treatment, particularly for category-guided treatment approach. This will facilitate an integrated strategy that leads to psychoeducation, lifestyle changes, and tailored pharmacological treatments linked towards prevention. The growing body of information points to a new diagnostic strategy that is needed to properly reflect the disorder's clinical complexity (Soreca et al., 2009). Bipolar disorder is characterized by extreme mood shifts developed by a combination of psychological and environmental factors and the disease's underlying biological mechanism. For a long time, it was believed that the condition was caused by a mix of biological and inherited factors in the form of a positive family history. The timing of individual episodes seems to be highly influenced by the environment, in addition to other psychological and behavioral aspects, which highlights the necessity for psychosocial therapy as a treatment for this extremely debilitating and occasionally deadly disorder (Frank et al., 2019).

Genetic Factors

The risk for bipolar I disorder among relatives of persons diagnosed with this bipolar disorder (BD) likely varies from 60–70% for a monozygotic twin to 2–5% for grandchildren or cousins (Bertelsen, Harvald, & Hauge, 1977; Gershon et al., 1982). The overall risk to the population is between one and two percent, which points to the ailment having a genetic basis as its cause. Experts have concluded that manic–depressive illness is a complex genetic disorder, and it is believed to be most likely comprised of multiple distinct genetic susceptibility characteristics. The expression of these features handed down among generations, increasing the likelihood of an individual acquiring the whole condition at some point in their lives. A greater familial inclination may be seen in those who develop symptoms of the bipolar disease at a younger age. People with the greatest levels of genetic susceptibility or the largest concentration of afflicted family members have a greater risk of developing the syndrome at a younger age. It is presumed that neurotransmitter abnormalities and circadian rhythm disturbances may affect the timing and onset of the disorder and illness episodes (Frank, 2007).

Circadian Dysregulation

Another approach to understanding the physiological foundation of mood disorders in general and bipolar disorder in particular, operates at the system level of entire body and focuses on the involvement of the circadian system, also referred to as the body's clock (Aschoff, 1981). The related studies strongly exist in the rationale of aspects related to social rhythms. The researches consider exogenous factors related to the environment responsible for setting the circadian clock as zeitgebers or timegivers (Aschoff, 1981). In

1990, Goodwin and Jamison debated that a comprehensive theory for understanding bipolar disorder should be based on an instability model, postulating that instability is the fundamental dysfunction in manic depressive illness.

Sufficient evidence from a theoretical perspective and its in-depth consideration, positing phenomenon-related perspectives are of foremost importance. Following the theoretical foreground for bipolar disorder, it was studied.

Theoretical Perspectives

According to behavioral approach system, bipolar disorder is comprised of high and contrasting low energy levels, cognitive functions and activities. The psychological and biological aspects of bipolar disorder can be clearly understood through behavioral approach system dysregulation theory. It is emphasized in the hypothesis that sensitivity to incentives and objectives plays a significant role in bipolar disorder (Alloy & Abramson, 2010). The theory focusing on the neurobiological system and functions gives a framework for conceptualizing personality, behavior, and psychopathology; one of such symptoms is termed as the behavioral approach system (BAS). The BAS is hypothesized to be responsible for the underlying drive, desire and behavioral approach. In 1994, Gray postulated that the BAS is the central nervous system's (CNS) reaction to reward-related stimuli. The BAS is a psychobiological system incorporating goal-seeking, personality, and behavioral tendencies (Gray, 1994).

The bipolar affective disorder is a prevalent neuropsychiatric condition. The dopamine hypothesis has been a central idea of the pathophysiology of both manic and depressive phases for over four decades, despite its insufficient neurobiological foundations. As antidopaminergics are increasingly being used to treat this condition, fresh in vivo neuroimaging and post-mortem investigations warrant a reexamination of this hypothesis. Bipolar disorder's depressed and manic episodes are thought to be caused by an imbalance between dopamine transmitters and receptors, according to the dopamine hypothesis. Enhanced availability of D2/3 receptors and a reward system more receptive to external stimuli have been shown to occur in manic states. Evidence shows that this may also occur in bipolar depression. More long-term researches are needed to pinpoint the exact changes in dopaminergic function associated with each phase and the specificity of those changes concerning mania rather than full-blown psychosis (Ashok et al., 2017).

Ellicott et al. (1990) established that life stress, in the form of negative life experiences previously linked to the emergence of unipolar depression (Brown & Harris, 1979; Paykel & Tanner, 1976), was also important for the progression of bipolar disorder. It was seen that such situations were linked to relapse or return of the condition in the 1990s research. In the 1960s and 1970s, Brown and colleagues found that schizophrenia progressed more rapidly in patients with a hostile home environment (Brown et al., 1972). Highly expressed emotion including the presence of hate, criticism, or emotional over-involved, led to the invention of a sophisticated technique to quantify this emotion. In families with schizophrenia, treating bipolar disorder on the part of the patient's parents or other family members is vital (Vaughn & Leff, 1976). As a result, family interventions were created to address the problem of relapse prevention within the context of the home (Falloon et al., 1985; Hogarty et al., 1986). Mintz and colleagues (1988) postulated that a similar association between expressive emotion and relapse would apply to young individuals with

manic depression. Patients hospitalized for a manic episode and returned to their families of origin revealed that a depraved home environment significantly impacted the disease course. Patients who relapsed in the nine months following hospitalization were 94% more likely to relapse if their parents distrusted them in emotional or face-to-face encounters. Patients were far less likely to relapse (17%) if their families exhibited positive attitudes and behaviors. A patient's social functioning was poor if family had negative interactional behaviors, as proven in the study. Subsequent studies in the United States and Europe have found similar links between the family's emotional climate and the progression of manic-depressive illness (Honig et al., 1997; Miklowitz et al., 2000; O'Connell & O'Brien, 1991; Wildgruber & Muller-Oerlinghausen, 1989).

Literature Review

Alloy and colleagues (2005) conducted a study to determine the psychological, thoughts, developmental history and environmental factors associated with the emergence of bipolar disorder. The environmental factors that can impact include a lack of social support and a stressful environment. Due to a stressful environment, most people became victims of bipolar disorder. Lack of social support worsens the existing condition. The negative comments of the family adversely impact the patients. The bipolar patients reported a recent stressful life event just before the onset of the disorder. The issue not only persists due to social factors but also relapses due to any stressful event. Christensen and Kessing (2006) studied personality traits that highly impact the person to develop the bipolar disorder, which is been previously understudied. The literature review in a systematic order was conducted with the bipolar disorder patient population. The results revealed that neuroticism is a risk factor for developing bipolar disorder in future, and the information can be used to prevent the psychological illness.

In 2018, Rowland and Marwaha studied epidemiology and risk factors for bipolar disorder. The results of the study suggest that genetic interaction with environment interplay is the most probable cause of bipolar disorder and psychiatric illnesses at large. The notified factors included genetics, gene to environment interaction, prenatal viral infections, childhood maltreatment, psychological stressors, substance misuse, medical comorbidity, and prodromal features with most common being schizophrenia.

Research Methodology

A qualitative study was designed to explore predisposing factors related to the development of bipolar disorder amongst a vulnerable population. For this purpose, an in-depth interview protocol was formulated based on literature review, theoretical background, hypothesis of the study and field observation. The data was collected from six patients suffering from bipolar-I and bipolar-II disorder to understand the trajectory of disease in retrospect. Furthermore, six clinical psychologists were recruited to understand this exploration in depth from the professional expert's point of view. The psychologists recruited had five years or more of clinical experience with bipolar disorder patients. The collected data were analyzed using NVivo-14 software through the method of thematic analysis. The following steps were conducted in this process

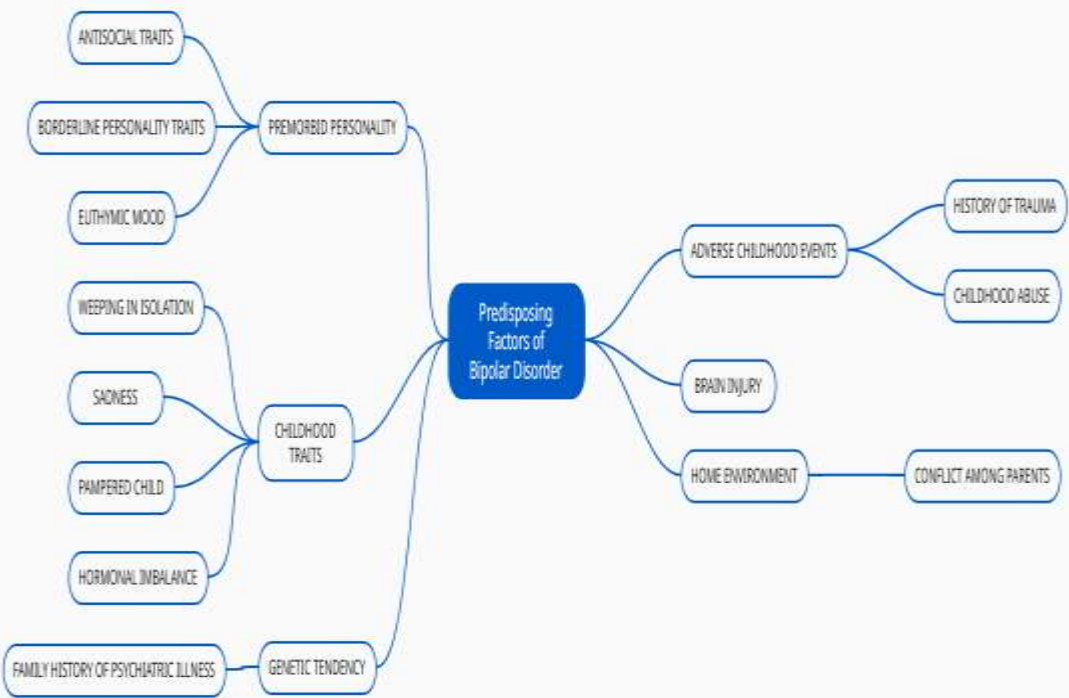
- The recorded data was transcribed
- Reading and re-reading the data for familiarization

- Open coding was performed
- Generating Themes
- Grouping together sub themes
- Defining the themes
- Reporting Braun and Clark (2013)

Results and Figure

The results were deduced using thematic analysis through NVIVO-14 software. Following themes emerged along the process

Fig.1 Mind Map of Predisposing Factors Related With Development of Bipolar Disorder



Theme 1: Genetic Tendency

Genetic tendency has been found to be most linked with development of bipolar disorder. The most vulnerable population is those with history of psychiatric illness in the family. Gordovez and McMahon (2020) studied the genetics of bipolar disorder and the results of the research suggest that genome-wide based studies prove credible evidence for the presence of polygenic markers linked to twenty-five percent heritability of bipolar disorder.

Psychologist reported: "Not really, I don't think you're born with it, though obviously, genetic tendencies are there if you're asking about that. Right, you're not born with it, but there are certain vulnerabilities. If there is a disorder in the family, your chances of developing the illness later in life increase significantly."

The psychologists posited that genetics are the most common cause of developing bipolar disorder, which has been scientifically proven. Bipolar-I disorder patients reported mostly the history of psychiatric illnesses in the immediate family.

Psychologist reported: "There is a 70% to 30% chance, with 30% attributed to genetics and 70% to environmental factors."

Patient reported: "My mother has experienced mental health challenges, and my uncle is also going through similar issues. It's prevalent in almost the entire maternal family. They struggle with psychological problems and, unfortunately, do not acknowledge or accept their conditions. Instead, they tend to project their problems onto others and engage in punitive behavior towards others."

Theme2: Premorbid Personality

Retrospective analysis suggests that bipolar patient have premorbid personality traits linked with future development of bipolar disorder including antisocial personality traits and borderline personality traits.

Psychologist reported: "Their personalities are very restricted, and if they are shy, they can go on to develop depression. While this isn't a direct linkage, there are certain indications that if you assess their premorbid personality, you will find these traits somewhere in their personality."

Heerlein and colleagues (1998) studied personality traits as predictors for bipolar disorder. The results of the study suggest that personality traits have a strong association with the susceptibility of an individual to develop bipolar disorder. The longitudinal study shows that introversion is linked with unipolar depression and extroversion is linked with stubbornness and rigidity in a manic phase. Neuroticism was also found to be linked with bipolar disorder, having a negative influence on the outcome of bipolar disorder.

Psychologist reported: "Borderline is a highly problematic disorder that includes dissociative features and transient psychosis during stress. The bipolar phase can be a result of that disorder,

but there is currently no specific link related to it. There have not been any reported cases indicating that there is a definite link or chance of developing it”.

Theme 3: Childhood Traits

The subthemes of childhood traits included weeping episodes, isolation, sadness, hormonal imbalances, and being a pampered child.

Psychologist reported: "During this age, any changes that occur—physically, hormonally, and in neurotransmitters, as well as the social circle that develops—are used to build a personality. At this time, personality is being formed, and any symptoms of bipolar disorder that existed prior can be considered as a predisposing factor."

Rowland and Marwaha (2018) studied premorbid features of bipolar disorder. The results of the study suggest that bipolar also has a prodromal phase preceding the onset of bipolar disorder, including a typical depression, and elation leading to mania.

Patient reported about depression, " I used to overthink everything. "

Theme 4: Adverse Childhood events

In 2011, Daruy-Filho and colleagues researched on childhood maltreatment and outcomes among bipolar patients. The results showed that childhood neglect and childhood abuse are linked with worsening the course and outcome of bipolar disorder.

Psychologist reported: “The risk factors include significant lifestyle changes, such as sexual abuse, social abuse, or violence, as well as severe bullying, discrimination, racism, and family events like divorce. Such severe family stressors or environmental factors increase the chances of developing bipolar disorder. In cases where there is no genetic disposition in the family, these are the triggers for the development of bipolar disorder.”

In 2016, Aas and colleagues studied the role of childhood trauma concerning the development of bipolar disorder. The study analyzed previous literature and results showed that experiencing traumatic events in childhood leads to disturbed emotional regulation, impulse control, and cognition linked with coping mechanism to fight stressors. The biological studies also show that experiencing childhood adversities is linked with interactions to several genes related to biological pathways in hypothalamic, pituitary, and adrenal glands with increased risk of suicide.

Patient reported: “I failed in matric exam, and a few days later I experienced severe depression”

Patient reported: “I was abused in childhood and no one took a stand for me.”

Theme 5: Home Environment

Home environment was found to be one of the most important triggering facets in the onset of bipolar disorder. In 2008, Belardinelli and colleagues studied the relation of family environment patterns in families of bipolar children. The results of the study suggest that children with bipolar disorder reported lower levels of family cohesion and high levels of conflict. A systematic review was conducted on environmental risk factors for development of bipolar disorders among offspring. The results of the study posit that stressful life events and the negative impact of family-related features play a crucial role in the onset of bipolar disorder among adolescents (Menculini et al.,2020).

Patient reported: “my parents were fighting, which triggered my episode of mania”

Psychologist reported: “In all the bipolar clients I have seen, there is always some form of trauma in their background.”

Theme 6: Brain Injury

Brain injury has been found to play a crucial role in onset of bipolar disorder among vulnerable population. Satzer and Bond (2016) studied the relationship of mania with focal brain lesions. The findings highlighted that secondary mania might be exhibited in cases where risk population with history of psychiatric illness in the family experiences lesions that represents hyperactivity of left hemisphere which are reward processing areas of the brain. Furthermore, it can be linked with hypoactivity of bilateral prefrontal emotion regulating areas of the brain. Patients with neurological deficits are also at risk for development of bipolar disorder after the age of forty years.

Psychologist reported: “If there is a structural brain injury, people may develop personality changes, and subsequently, they can also experience bipolar symptoms”.

Conclusion and Implications

A qualitative study was carried out to understand the premorbid and predisposing traits of the risk population for the development of bipolar disorder. For this purpose, a retrospective analysis was conducted through interviewing bipolar patients and clinical psychologists. The results of the study highlighted the importance of family history of psychiatric illnesses, personality traits including narcissism, antisocial behavior and features of borderline personality disorder. Furthermore, some childhood traits like introversion/extroversion, weeping and sadness as well as experiencing adversity in childhood and a negative home environment are linked with the onset of development of bipolar disorder during adolescence. Furthermore, it was found that in some cases traumatic brain injury also precedes the development of bipolar disorder and manic episode in particular. The results of the study have very important clinical implications for field experts to use this data in accurate diagnosis of the disorder and addressing the above-mentioned facets for better therapeutic management. This data can also help provide awareness among parents and caregivers to focus on neglected areas to prevent the onset of the disorder among the high-risk population.

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