

**Bipolar Disorder: Literature Review**

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## **Bipolar Disorder: Literature Review**

Bipolar disorder is a common disorder in the United States. The purpose of this literature review is to help patients be able to manage their condition and maintain a stable mood. There are several risk factors included in bipolar disorder. The literature review will discuss several factors and how patients think and manage their diagnosis. Bipolar disorder patients' mood states will be observed during this study, analyzing what could be the cause.

### **Alterations of the Cerebellum and Basal Ganglia in Bipolar Disorder Mood states detected by Quantitative T1p Mapping**

Bipolar disorder is a psychiatric illness that makes a person have severe mood changes from happy to depressed. The article discusses how the cerebellum and basal ganglia mood states are detected when altered. Most of the advanced imaging taken of the brain has indicated the frontal and limbic regions of the brain that are central to one's emotions (Johnson et al., 2018). Researchers still have not been able to find the pathophysiology underlying this disease. "The purpose of the current study was to investigate whether rotating frame (T1p) differences in bipolar disorder varied across mood states: euthymia, depression, and mania (Johnson et al., 2018). The quantitative study focuses on the relaxation times throughout the brain of patients that have bipolar disorder. Temporal changes in pH and macromolecular concentrations affect mood states, and researchers predict that T1p mapping will affect mood state-dependent brain differences (Johnson et al., 2018). This article can assist the research of a common bipolar disorder.

### **Key Points**

Researchers found that in bipolar disorder, the pH was reduced in some brain areas using MR spectroscopy (Johnson et al., 2018). The T1p relaxation increased in the cerebellum and cerebral for patients with bipolar disorder instead of participants without a history of psychiatric illness. Researchers ensure that cerebellar observation may significantly affect mood regulation (Johnson et al., 2018). The method of this article is a quantitative study with 40 participants with bipolar disorder. These 40 participants split into two groups, with 11 having different mood states and 29 having healthy control participants matched for age and gender (Johnson et al., 2018). Researchers have done several scans throughout the study, including 27 in a euthymic state, 12 scans in a depression state, 13 in a manic state, and 29 healthy scans (Johnson et al., 2018). Moods were scaled using the Montgomery-Asberg Depression Rating Scale and the Young Mania Rating Scale (Johnson et al., 2018). Researchers documented the patients' medication and psychiatric history before the study started. For the entire study, there were a total of 81 sessions with participants. The p-value for this specific study is 0.5; therefore, the data is significant to the study (Johnson et al., 2018). This study adds to the evidence of the cerebellum and basal ganglia as an interest in the mood states and allows researchers to investigate further the research (Johnson et al., 2018). Researchers hope this study leads to new insights into the disorder and targets under-appreciated brain regions (Johnson et al., 2018). This journal focuses on the possible regions of the brain that could be the cause of the psychiatric disorder.

### **Assumptions**

The study has data to support the findings of cerebellar alterations in bipolar disorder and new insight into how different moods may affect the cerebellum and other regions such as basal ganglia (Johnson et al., 2018). Researchers found higher pH and macromolecular concentrations

in the basal ganglia for depressed and manic moods. During the study, researchers found an increased T1p relaxation time in the cerebellum with reduced pH and metabolic variation (Johnson et al., 2018). Lithium and medications could also potentially affect the T1p differences in bipolar disorder. “Researchers found differences between mood states, potentially in basal ganglia and surrounding tissues in depression and mania, suggesting the involvement of the regions in the manifestations of altered mood states” (Johnson et al., 2018). Although researchers did find evidence, further studies involving various mood symptoms would benefit bipolar patients.

### **Deficit/Conclusion**

Although there needs to be more research on whether the cerebellum and basal ganglia affect the mood state of bipolar disorder, the article does provide evidence. Throughout the article, the author finds evidence of how specific parts of the brain may result in the formation of the moods of bipolar patients. The author provides reliable sources to support their reasoning of the mood states. “The euthymic group had clusters of increased T1p relaxation times throughout the brain, with particularly pronounced clusters in the cerebellum and cerebral white matter” (Johnson et al., 2018). Cerebellar alterations were observed in three mood states, suggesting it is a trait of the illness (Johnson et al., 2018). If nursing fails to accept the line of reasoning, there will be no other way to see if this treatment works. If the line of reasoning fails, research will no longer support the cerebellum and basal ganglia affecting the mood state of bipolar patients. The implications would include having no further leads on how brain parts affect moods.

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### **Key Points**

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### **Assumptions**

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### **Deficit/Conclusion**

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### **Assumptions**

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### **Deficit/Conclusion**

Paragraph goes here discussing the conclusion of the article. Follow the MEAL paragraph formatting and use Grammarly.com. Do you accept the authors' line of reasoning? What are the implications for this article? If nursing fails to accept this line of reasoning, what would the implications be?

### **Conclusion**

Write a conclusion here in your overall paper. Follow the MEAL paragraph formatting and use Grammarly.com. Provide a summary/conclusion of the analysis of all three articles.

Discuss how the information can improve:

- Patient outcomes
- Nursing practice
- Evidence-based practice/Quality Improvement efforts
- Healthcare as a whole

## References

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