

Rock n' Roll Canine

By Christopher Ballmann, PhD

I was diagnosed with bipolar disorder when I was young. Although often stigmatized to present as a “Jekyll and Hyde” complex,¹ bipolar disorder does not influence an individual’s sense of right and wrong nor does it relate to personality changes.² Rather, it mainly affects mood, energy levels, sleep patterns, physical activity, and impulsivity.³ I have gone to great lengths to hide it most of my life due to stigma—although it is hard to disguise going without sleep for 10+ days to those around you. Despite my successes as a researcher and professor, my life has been erratic and often unpredictable. The highs and lows of my life have wavered to the extremes like a swinging pendulum. Difficult in every sense of the word. Cycling through psychiatric medications always felt like a chess match, and I was constantly losing. But through it all, I found treatment in areas that coalesced into the biggest win toward managing my mental health and psychiatric disabilities.

of me; a fifth limb, almost. The missing piece of me from my disability was restored by a fretboard and strings. I would spend hours in my room learning Pink Floyd, Metallica, Nirvana, and everything in between. I played in various rock bands in high school and college and at my church on Sundays. Music truly is my passion and always accompanied my many sleepless nights. Even now, it is the primary focus of my research agenda.⁴⁻⁸ It is my mental health oasis. But it wasn’t until later in my research career that I understood why.

Learning to play a musical instrument is a multifaceted process that engages various sensory modalities and higher-level executive functions.⁹ Learning an instrument has been well-established in the scientific literature as a potent inductor of neuroplasticity, or the forming/rewiring of neural connections.⁹

Longitudinal studies have revealed structural and functional differences between the brains of musicians and non-musicians, particularly in areas associated with motor control and auditory processing.⁹ Music also activates limbic pathways in the brain, which are responsible for emotional regulation and motivation—especially if the individual loves the music they are listening to.¹⁰⁻¹² Likely, this is why music has been shown to aid in alleviation of a variety of psychiatric

Let There Be Rock

When I was 12 years old, my Dad bought me my first electric guitar. To say I immediately connected with it would be an understatement. It became an extension

disorders including anxiety, depression, and mood disturbances.^{13, 14}

SWEET EMOTION

Perhaps this underpins the rationale for how music became my ultimate outlet. A creative expression of my emotional and mental state. Battling a psychiatric disability is difficult to explain, and many times, the words escaped me when I wanted to confide in others. But I was learning to communicate through studying music—from the melodies and lyrics I played on repeat. As James Hetfield, one of my personal heroes, lead of the band Metallica, and outspoken mental health advocate, once said, “Music is a language that speaks to the soul.” Music gave me a voice and allowed me to release musical notes as emotional communication from my soul.

However, the effectiveness of communication is limited when you have no one to share it with. This is often the plight of individuals with psychiatric disabilities.

a friend (all who I love dearly). She was my dog.



Figure 1: Author (Christopher Ballmann) and his dog, Stella

Temple of the Dog

In 2015, I met a girl who would change my life forever. She would become the foundation of my mental health and arguably the most important support for my psychiatric disability other than music. She was kind, meek, and could not help but always be near me. She saw me at my worst but always believed the best in me. She gave me confidence and a will to keep going. She also loved music. She would listen to the same music as me and never complain—unless she needed my attention, of course. Every sleepless night, she was there right next to me to jam and rock out. Her name was Stella [Fig. 1]. No, this wasn’t my wife, or child, or

Stella was my first support/service animal, a role she embodied in every means imaginable. But if I was playing guitar, she became something more. Stella was my means to communicate musically, and I will swear to this day that her level of support always matched what I was playing (sometimes even a little too much if playing the Blues [Fig. 2]). No matter the time of day, Stella was right next to me, especially if I had a guitar in my hands. She became as essential to my creative outlet as the guitar itself.

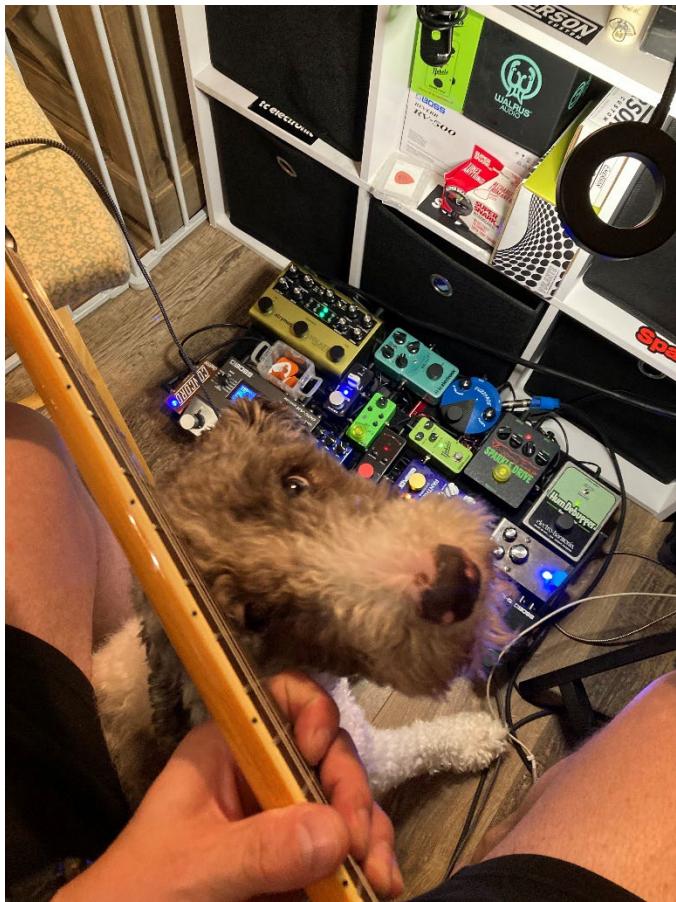


Figure 2: Stella listening to the Blues.

A SOLO OF GRIEF

Sadly, Stella passed at 9 years old in September 2024 from lymphoma. After that, I lost a part of myself and my ability to communicate musically. The grief was overwhelming.

[“Grief”](#) was the first musical composition I wrote following Stella’s passing. It was my first attempt in almost a decade to communicate musically without her. Grief is a journey—and with a psychiatric disability, that journey can be lonely and isolated. Colors seemed to lose their luster; finding closure feels like wandering aimlessly through a forest of lost memories and

hopelessness. But even in the midst of grief, there is light. There is still hope. Through Stella’s passing, I learned that if I wanted to find the light of hope, I needed to actively look for it myself—through music. The question is, how was I supposed to do that without Stella to communicate when my psychiatric disability was baring down on me? The answer: believe in the version of myself that she saw looking at me, especially when communicating through music.

Outro

To those walking through grief with a psychiatric disability, know that there is light on the other side of grief. Colors can return to their full brightness. Music can help! But sometimes, you must believe in yourself the way those who love you the most see you. For me, that was Stella. She may be gone, but her impact on me mentally and musically will remain light and hope for the rest of my life.

References

1. Dell’Osso B, Ketter TA. Clinical observations about the strange case of Dr. Jekyll and Mr. Hyde in relation to bipolar disorder. *Academic Psychiatry*. 2015;39(5):607-8.
2. Marquard K, Mapaling C. Myths and Misconceptions About Bipolar Disorder. *Mental Health Matters*. 2023;10(2):6-7.
3. Vieta E, Berk M, Schulze TG, Carvalho AF, Suppes T, Calabrese JR, Gao K, Miskowiak KW, Grande I. Bipolar disorders. *Nature reviews Disease primers*. 2018;4(1):1-16.
4. Ballmann CG, Cook GD, Hester ZT, Kopec TJ, Williams TD, Rogers RR. Effects of Preferred and Non-Preferred Warm-Up Music on Resistance Exercise Performance. *Journal of Functional Morphology and Kinesiology*. 2021;6(1).
5. Ballmann CG, Favre ML, Phillips MT, Rogers RR, Pederson JA, Williams TD. Effect of pre-exercise music on bench press power, velocity, and repetition volume. *Perceptual and Motor Skills*. 2021;128(3):1183-96.

6. Ballmann CG, Maynard DJ, Lafoon ZN, Marshall MR, Williams TD, Rogers RR. Effects of listening to preferred versus non-preferred music on repeated wingate anaerobic test performance. *Sports*. 2019;7(8):185.
7. Ballmann CG, McCullum MJ, Rogers RR, Marshall MR, Williams TD. Effects of preferred vs. nonpreferred music on resistance exercise performance. *The Journal of Strength & Conditioning Research*. 2021;35(6):1650-5.
8. Ballmann CG, Rogers RR, Porrill SL, Washmuth NB. Implications for the Ergogenic Benefits of Self-Selected Music in Neurological Conditions: A Theoretical Review. *Neurology International*. 2025;17(7):106.
9. Olszewska AM, Gaca M, Herman AM, Jednoróg K, Marchewka A. How musical training shapes the adult brain: Predispositions and neuroplasticity. *Frontiers in neuroscience*. 2021;15:630829.
10. Ballmann CG. The Influence of Music Preference on Exercise Responses and Performance: A Review. *J Funct Morphol Kinesiol*. 2021;6(2).
11. Cheung VK, Harrison PM, Meyer L, Pearce MT, Haynes J-D, Koelsch S. Uncertainty and surprise jointly predict musical pleasure and amygdala, hippocampus, and auditory cortex activity. *Current Biology*. 2019;29(23):4084-92. e4.
12. Mavridis IN. Music and the nucleus accumbens. *Surgical and radiologic anatomy*. 2015;37:121-5.
13. Gebhardt S, Kunkel M, Georgi Rv. Emotion modulation in psychiatric patients through music. *Music Perception: An Interdisciplinary Journal*. 2012;31(5):485-93.
14. Covington H. Therapeutic music for patients with psychiatric disorders. *Holistic nursing practice*. 2001;15(2):59-69.

About the Author



Dr. Christopher Ballmann, PhD is an Associate Professor of Kinesiology and Director of the Resistance Exercise Physiology (REP) Laboratory at the University of Alabama at Birmingham in Birmingham, Alabama, USA. He is also a Fellow of the American College of Sports Medicine. His primary expertise centers around the areas of physiology, personalized music interventions, and exercise performance. Dr. Ballmann is a leading researcher in the use of music interventions to improve physical ability and psychophysiological responses to exercise in both athletes and clinical populations. As a lifelong musician himself, Dr. Ballmann is a passionate supporter and advocate for the use of music as medicine.