

# Essays from MABS' 2016 Spring Conference

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As a requirement for receiving a scholarship to a Mid-Atlantic Biofeedback Society's conference, student scholarship recipients submit a one-page essay about their experience at the conference, how what they learned fits in with their studies and how they might use the information they used in the future.



The Mid-Atlantic Biofeedback Society is pleased to enclose the essays from the seven students who attended our 2016 Spring Conference on scholarship.

Mid-Atlantic  
**BIOFEEDBACK**  
learn~connect~inspire Society

**Pursuing a PsyD at George Washington University's Professional Psychology Program**

In the field of mental health and psychology, many constructs have been developed to describe human thought process, emotions, and behavior. Often, what is neglected by both clinician and client is that there is a neurophysiological basis that underlies these constructs. These constructs, whether they be from cognitive-behavioral, psychodynamic, or other approaches, seek to describe human thought and behavior but often do not emphasize the importance of neural networks nearly enough. One of the aspects that I enjoyed the most from attending the Mid-Atlantic Society for Biofeedback and Behavioral Medicine (MASBBM) Conference was that these constructs were observed from a neurophysiological basis with considering the importance and impact of neural networks on thought, emotions, and behavior.

I learned much during the conference; however, one area that stuck out to me was the discussion Ms. Sebern Fisher gave about attachment, trauma, the related neurophysiology. Although I have learned about the importance of early attachment on later relationships through my academic program, I had never considered the underlying neurophysiological basis in this way. I had never considered that there are neural networks that create reenactments and that neurofeedback can facilitate changing some of these neural patterns, particularly for maladaptive reenactments.

Being a veteran and having worked extensively with veterans with post-traumatic stress, the talk on trauma was of particular interest to me. While I have some awareness of the impact of childhood trauma on the development of later trauma and posttraumatic stress disorder (PTSD), I did not realize how great this impact can be. I was particularly taken aback by the Adverse Childhood Experiences (ACE) study that found that men who have ACE scores of 6 are 4600% more likely to become intravenous (IV) drug abusers than men with an ACE score of 0. Having completed an internship at a residential substance use treatment facility, this made me think about how neurofeedback might be used to help treat substance use disorders. I have learned and experienced first-hand that substance use disorders are incredibly challenging to treat, especially when heavy substance use occurs during adolescence.

I am interested in continuing to learn more about neurofeedback how it can be applied to populations suffering from trauma. In addition to applying neurofeedback to trauma clients, I am also interested in applying neurofeedback to substance use disorder clients as well as hospital patients who are in a minimally conscious state. Not long after the conference, I learned that a client I had worked with had overdosed and ended up in a coma and from there, progressed to a minimally conscious state. In this state, it was unknown how conscious the client was, since the client could not communicate and only exhibited eye and mouth movement. What I found distressing was that the hospital was doing little to stimulate the client's brain or body. Through this situation, I have become very interested in applying neurofeedback to patients in a minimally conscious state as a result of brain injury, as well as with clients who suffer from traumatic brain injury in

general. I plan on seeking a training internship or other volunteer opportunity where I can obtain hand-on experience with learning how to administer neurofeedback and biofeedback under the guidance of a skilled practitioner.

**Rosie Bauder**

**Master in Mental Health Counseling and Behavioral Medicine, Boston University School of Medicine**

It was a pleasure to attend the Mid Atlantic Society for Biofeedback and Behavioral Medicine's Spring Conference as a student. I am grateful to MASBBM and the Association for Applied Psychophysiology and Biofeedback for supporting me and the other students with scholarships to attend the conference. The conference was a great opportunity for me to learn about current issues in biofeedback and neurofeedback as well as suggestions for clinical practice. For me, this conference was my first exposure to biofeedback, and I was eager to learn how biofeedback could better inform my understanding of diagnosis and treatment. As a student studying mental health counseling, I have had classes that are clinically focused and experiential; getting a chance to see a new perspective to holistic patient care makes me optimistic that effective care can be accessible in the future.

There were many rewarding moments during the conference, the very least of which was the warm welcome that we received. I found Sebern Fisher's discussion on developmental trauma to be incredibly fascinating, especially since I have an interest in trauma and suicide. I was interested to learn about the neurobiological implications for wellness, especially in children and adults with developmental trauma and how biofeedback is used with a variety of clients, including those with Dissociative Identity Disorder and other Trauma Disorders. I loved to hear about the case studies that Sebern included as well. When she talked about neural circuitry and trauma I felt as if the material I was covering in my classes was coming more and more to life. It helped me to see that neural circuitry is strongly influenced by experiences and environment; as Hebb says "What fires together wires together". Sebern made a poignant point about the fear-driven brain. She spoke about victims of abuse and how commonly victims are misunderstood to return to their abusers because they don't wait help. In fact, the reason victims of violence and abuse don't flee because they have been fear-driven for so long that their brain dictates that fleeing is just not an option.

As clinicians in the field of biofeedback, our role is to recognize the parts of the brain that are informing behavior and which to target as treatment. After my first exposure to psychopathology, trauma, and their connection to biofeedback, I want to learn more about biofeedback. At the very least, I am compelled to take an introductory class to learn about biofeedback. I was impressed and inspired by the other students and attendees at the MASBBM conference and hope that membership with MASBBM and the support of a new community, I can be open to learn more about biofeedback and how to best serve others as a clinician.

**Maxie M. Blasini**

**Attended Saturday only**

**MS candidate, Complementary and Alternative Medicine, Georgetown University**

As a recipient of the scholarship that allowed me to attend the Mid Atlantic Society of Biofeedback and Behavioral Medicine Conference, I am incredibly grateful for having been able to meet such insightful and dedicated healthcare practitioners. Attending to this conference fueled an intense curiosity in me for further exploring possible bridges between neurofeedback, neuroscience and psychology.

The promising outcomes that neuro- and biofeedback offer should be investigated within rigorous clinical research, in order to quantify and identify specific patterns and relationships that are common to all implicated areas of science and healthcare practices. Patients suffering from disorders that are hard to manage or treat with conventional medicine may experience great relief and improvement upon the use of neurofeedback. In addition, neurofeedback may be able to help increase diagnosis accuracy. Therefore, integration between neurofeedback, biofeedback and conventional practice would offer the best possible, individualized treatment delivery to patients.

Dr. Kirk's presentation in regards to the Dalai Lama's expressed interest in neurofeedback was very inspiring. The teachings offered by Eastern philosophy, united with behavioral modification interventions, could serve as a catalyst for the transformation of lifestyle and personal worldview. By doing this, patients would be able to see behavioral interventions not only as mere treatments, but also as a way gaining insight about themselves and about life experiences in general, and will also have an opportunity to improve resilience, happiness, peace of mind and wellbeing.

**Rachel Friedman**

**Master's Candidate, Mental Health and Behavioral Medicine Program, Boston University School of Medicine**

My prior knowledge of neurofeedback comes from working with adolescents with depression and seeing its effects on that population. This conference was such a great experience in that I learned more about all of the clinical applications of neurofeedback beyond depression. The idea of being able to observe brain activity in real time and using that feedback to influence and regulate performance is fascinating in and of itself. Neurofeedback, however, does not seem to be that popular of a treatment option (at least as far as I can tell from my first year in graduate school) despite its proven efficacy and widespread application. As Dr. Sebern Fisher succinctly noted, many therapies work with the mind to reach the brain; neurofeedback takes a more direct approach by targeting the brain to change the mind. This seemingly evident, yet exceptionally poignant statement really hit home for me, and reinforced just how remarkable neurofeedback treatment is.

As a burgeoning mental health clinician aiming to work with children and adolescents, I was most taken with Dr. Fisher's presentation on developmental trauma. This semester I interned with the Boston Emergency Services Team (BEST) and witnessed firsthand the far reaching and devastating effects early exposure to trauma can have. I encountered children who have learning disabilities, emotional dysregulation, poor impulse control and behavioral challenges as well as adults who experience severe depression, anxiety, an inability to form relationships and psychosis, all due to early trauma. The symptoms of trauma are amongst the most intractable mental health challenges. Dr. Fisher's presentation was enlightening, as she discussed the disruptive nature of fear on the nervous system and the way in which the brain can live in a state of chaos. It was captivating to hear about the arousal model and the notion of targeting the amygdala to "quiet fear" which, as she stated, is the driving force behind the psychopathology of trauma. My previous experience with neurofeedback was limited to decreasing excessive beta waves and alpha wave asymmetry in the frontal lobes. I hadn't heard of using neurofeedback therapy to target subcortical structures and circuits. Listening to Dr. Fisher and learning about neurofeedback as a means of addressing dysfunctional limbic circuitry was subsequently really eye opening.

Hearing about Dr. Fisher's patient with a very complex mental health history who benefited substantially from neurofeedback was extremely interesting as well. In neurofeedback therapy, the client is essentially in control and able to see and influence her own gains. I feel that neurofeedback can be particularly helpful to clients who have lost that sense of self, typically seen in trauma victims. Neurofeedback can help restore a sense of agency and control, and allow the client to regain a self narrative. This idea was truly reinforced by Dr. Fisher's client who said that post treatment she has "a self now". Being privy to her experience and learning about the ways that neurofeedback can help someone whose symptomology was so acute and whose life was so severely affected by trauma find peace was incredible.

Inspired by the conference presentation, I decided to enroll in a summer course entitled Trauma Across the Life Span to further my learning about development trauma. In the fall, I am hoping to attend the Northeast Region Biofeedback Society annual conference in Boston. I find neurofeedback therapy and its potential applications fascinating and plan to gain more knowledge about it as I continue my graduate studies. Neurofeedback seems to be exceptionally effective for a variety of mental health issues, yet there are limitations in its accessibility. I would like to integrate neurofeedback in into my future studies and research and find a way to make it more accessible to the populations who can most benefit from it.

**Sarah Johnson**

**Master in Mental Health Counseling and Behavioral Medicine, Boston University School of Medicine**

Attending the Mid Atlantic Society of Biofeedback and Behavioral Medicine's Spring Conference as a student scholarship recipient was a great opportunity. I am thankful for the chance to learn more about this academic society and to meet the individuals working hard in this field. Being given the opportunity to attend as a student allowed me to learn from educated professionals and learn about current issues in biofeedback and neurofeedback. Before attending the MASBBM's Spring Conference I was uneducated on the practice and application of biofeedback and neurofeedback. I was uninformed of the implications and the research surrounding this specific technique. This conference was my first exposure to biofeedback and was an educational conference for me to attend given this. While attending the two day conference I was exposed to what biofeedback is and the current clinical advances in this field. I am grateful for this learning opportunity and the chance to gain a new perspective in the holistic world of mental health.

I am grateful for the hospitality of all of the members of this society and truly felt received well as a student. The atmosphere of the conference was welcoming and encouraging for me to find my place in the world of biofeedback and neurofeedback. It provided a great opportunity to network with fellow professionals and learn where each individual's research is heading. This conference allowed me to see cutting edge research that I otherwise would not have found out about. Having very minimal exposure to this field prior to the conference, I was able to ask questions and inquire knowledge in this field, as well as learn from so many influential professionals.

Personally, the most interesting part of the MASBBM's Spring Conference was Dr. Fisher's lecture on biofeedback's application with developmental trauma. As I am a master's student who has experience working with adolescents in a residential setting and I hope to one day continue to work with adolescents exposed to trauma, this particular lecture was especially informative for me. Using biofeedback as a tool when working with developmental trauma is something I had not heard of previously. It is an interesting approach to therapy, and learning the research and implications of said research was very educational. At the conference I learned how clinicians are using biofeedback to retrain how the brain processes trauma. The clinicians I met at the conference, as well as Dr. Fisher, presented research that showed how this innovative approach to developmental trauma is having success. Having gained this insight through the conference I am interested to further research Dr. Fisher's findings, as well as others in this field. Dr. Fisher's sharing of client success intrigued me and I look forward to finding out more about the implications of biofeedback specifically for adolescent girls.

As learned from this conference, neurofeedback seems to be exceptionally effective for a variety of mental health issues. I hope to stay engaged with the Mid Atlantic Society of Biofeedback and Behavioral Medicine and continue to learn about this innovative field and the many applications of biofeedback. I would like to thank the Mid Atlantic Society of

Biofeedback and Behavioral Medicine for the opportunity to attend the Spring Conference. It was a pleasure to meet all of you and learn from your expertise in the field of biofeedback and neurofeedback.

**Shivali Saxena**

**Pursuing a Master of Arts in Clinical Psychology at Pennsylvania State University, Harrisburg Campus**

I had an incredible experience at the MASBBM conference in April 2016. I believe that I am extremely fortunate to have received a scholarship to this prestigious conference. I truly was lucky to be in company of such great clinicians and biofeedback practitioners. I was able to meet and connect with so many talented therapists and hear their opinions and points of view of various areas related to practicing neurofeedback. I learned so much about the importance of monitoring client diet, and taking medical conditions and environment into account while performing biofeedback. I strongly believe that my experience of the two day conference proved to be invaluable.

Among the many things that I learned, I really enjoyed listening to Dr. Hanno Kirk's talk about Buddhism and Neurofeedback. I have always been fascinated with understanding the brainwave patterns of monks. I was excited to learn that the Dalai Lama is interested in Neurofeedback and I would love to go to Dharamshala and help out at the biofeedback clinic there. Hanno and I spoke at length during breaks and after the first day about the possibility of me going to the clinic. I would have never thought of this as a possibility until I met Hanno. I look forward to working with the monks in Dharamshala in the future and with the aid and guidance of Hanno, this is a real possibility for me.

I also learned a lot about developmental trauma in Sebern Fisher's talk. I enjoyed how her talk was very application based and that I was able to connect much of what she was saying to various developmental theories and to some of the clients and patients that I have seen and worked with. I never knew how strong developmental trauma can play a role in neuronal development and therefore have a strong connection with neurofeedback. This talk opened my eyes to a whole new realm of neurofeedback, regarding developmental trauma. I never really knew much about developmental trauma until this conference and it has shed a lot of light to its importance.

This conference has taught me a lot regarding practicing neurofeedback. Although I have been working with this therapy for a little over a year, I am continuously learning more and more about the different methods, forms and considerations regarding neurofeedback therapy. As a student, I am continuously looking for experience and more knowledge in this field. I am working on my master's thesis as a literature review of the efficacy of neurofeedback and I would like to work professionally at a practice which utilizes biofeedback and neurofeedback therapy in conjunction with talk therapy. I have learned a lot in this conference and I will take it further in my training and work with clients in the field.

All in all I had an incredible experience at this conference. All the professionals were so helpful and open to questions and discussions. I learned a lot of information about neurofeedback which I can take back to my training and the practice I work with. I met many helpful practitioners in their field who were willing and eager to lend support and

share their experiences with me. I would definitely attend this conference again whenever I have to opportunity to do so!

(Minor edits throughout this document were made by Bea Haskins, MS, MABS' Executive Director.)