

Essays from MABS' 2018 Spring Conference

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.



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Justin Jacques – George Washington University, Counselor Education and Supervision

My name is Justin Jacques and I am a second year Ph.D. student at the George Washington University in Counselor Education and Supervision. I am also a staff clinician at The George Washington University. I have been a clinician for the past thirteen years working in adolescent residential treatment, EAP, and now university counseling. I have been interested in biofeedback/neurofeedback for the past two years as I have become more involved in the Neuro-counseling Interest Network (NIN) of the American ACA. Specifically, I am a frequent contributor to interest network's list serve. Recently, during one of our NIN meetings we had an expert in biofeedback/neurofeedback present to our group and I was able to learn about the many studies that demonstrate the clinical efficacy of the approach. Additionally, the founder of our group Dr. Eric Beeson promoted your conference over our list serve and I was very excited about the opportunity to learn more.

During Dr. Douglas Fields' presentation the thing that was most interesting to me was understanding the role that glia play in the brain. As a counselor who infuses neuroscience into almost every session, I realized that I have only been telling half the story about neurons "firing together and wiring together" and that there is indeed an "other brain" that I need to include in my psychoeducation. I may even update my psychoeducation diagrams of neurons to now include the glia. I was particularly amazed at Dr. Field's experiment where his lab added astrocytes (a type of glia) to rat brains and found they got smarter. It was helpful to also learn about the large difference in quantity of glia between more complex human brains in relation to simpler animal brains.

When attending Dr. Swatzyna's presentation I found his case for precision medicine through EEG/QEEG diagnosis very compelling. I agree that as a counselor I diagnosis mental health and substance use disorders without actually viewing the organ I am treating. I also know that diagnosis through the DSM-5 is not very accurate, valid, or reliable. I am more and more convinced that I too would like to work in a practice that utilizes this brain based diagnosis technology as part of the intake procedure. It is truly a way to take the guess work out of psychiatry and the other counseling professions and use a truly integrated approach.

During my dissertation year I plan to pursue more advanced training in Biofeedback or Neurofeedback. This will include taking a couple of adjunctive courses from the NIH Graduate School (biology and genetics & immunology and microbiology) and finding supervision towards certification.

When thinking about what I learned from the conference and how I might apply it to my current work as an LPC, I see a distinct opportunity. Both Penn State University and the University of Texas at San Antonio use biofeedback/neurofeedback in their counseling centers and have had noted success. It really is a win/win in these settings as the counseling students are certified and learn a new modality and the students at these universities experience decreases in panic symptoms, anxiety, and depression. I hope to continue to lead the charge in advocating that The George Washington University Consider using this technology as part of our integrated counseling center. It makes sense financially, as we have too few counselors and this could expand our services. As well, our most common presentations are depression, anxiety, and panic disorder. I am excited to see what the possibilities may be for biofeedback/neurofeedback in our center. Furthermore, I am considering whether I could begin a partnership with one of the biofeedback/neurofeedback providers in the area and do a dissertation looking at clinical outcomes incorporating these modalities.

Thanks again to Mid-Atlantic Biofeedback Society for the wonderful opportunity to attend the MABS Annual Spring Conference and I look forward to attending other events in the future.

Meschelle Linjean – SUNY at Buffalo, Pursuing an MSW with clinical focus

I appreciated the opportunity to attend the MABS Spring 2018 Conference on the Physical Brain and Mental Health featuring presentations by Douglas Fields (*Understanding Glia*) and Ron Swatzyna (*Determining Successful Treatments for Neurological Disorders*). Aspiring to be a clinical social worker, I appreciate the holistic biopsychosocial approach to understanding human health and have a particularly deep interest in neurobiology, neuroplasticity and neurological dysregulation as they relate to trauma. Both presentations were rewarding in affirming my pursuit of a career that champions the integration of mind and body, as well as non-pharmaceutical treatments for ailments.

I was excited by Dr. Fields' presentation on the four types of glial cells and what is being learned about their functions in the central, autonomic and enteric nervous systems. I found it fascinating that myelin plasticity is likely as important as synaptic plasticity in learning and psychiatric conditions. It is amazing to me that this long-neglected "white matter" part of the brain has so many implications for physical and mental health, particularly the associations between glia, neglect and verbal abuse, limbic irritability, and the development of PTSD.

I have long been in agreement that the DSM is not a valid instrument and am keenly aware of the harms that psychiatric misdiagnoses and inappropriate psychotropic prescriptions can cause. Therefore, I greatly appreciated Dr. Swatzyna's presentation on personalized medicine using biomarkers such as the QEEG for differential diagnosis. I was fascinated by what the QEEG can reveal (e.g., epileptiform discharges in children diagnosed with ADHD and autism spectrum disorder) and how it can lead to more effective treatments. I am also a proponent of micronutrient, genome, and food sensitivity testing and was interested to hear how Dr. Swatzyna works with other healthcare practitioners to incorporate these into holistic treatment for patients.

My MSW program integrates trauma-informed approaches and methodology into the entire curriculum and I have chosen to focus my studies on trauma theory and treatment. Both Dr. Field's and Dr. Swatzyna's presentations have implications for the study and treatment of trauma and I intend to share what I have learned from them, as well as the additional resources they discussed, during class discussions. MSW students are often so focused on the psychosocial aspects of mental health that they neglect biological considerations. I want to encourage my fellow students to consider physiology and engage them in discussions of neuroplasticity.

Aspiring to obtain my LCSW and eventually a PhD incorporating study of neuroplasticity, I was inspired by Dr. Swatzyna's career trajectory and will consider his call for graduate research assistants. As more becomes known about glial cells, I hope to pursue further training on their relation to central sensitization following trauma or long-term treatment with psychotropics such as opioids and benzodiazepines. I hope that further research on glia will evolve into new approaches to rewiring the brain after traumatic injuries (physical, chemical, or emotional), which is a particular area of practice I wish to pursue.