

Research and the Inability to Settle: An Unexpected Journey to Move Exercise Science Forward

12/07/2020

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When I applied to Marquette, research was never something in which I thought I would get involved, for I didn't know much about the research process or the importance of being involved in research. However, I realized that my inability to accept things without further depth of understanding was an excellent reason to pursue research. The only way that I can help advance the professions of exercise physiology and physical therapy is if I actively engage in the discovery of how the human body works. I began research as a sophomore with Dr. Alexander Ng in his multiple sclerosis and breast cancer survivor labs. Discovering how an individual's past medical history and current diagnoses impact their physiological functioning was fascinating, but it wasn't the patient population I am passionate about.



Thus, as a junior, I switched gears to pursue research in a field that has always captivated me, athletic human performance, and I began working with Dr. Sandra Hunter in the Athletic and Human Performance Research Center (AHPRC). During my time at the AHPRC I have learned about the grit required to pursue research. The process of writing an IRB, or a documented plan of what a research project will entail, as an undergraduate student is not an opportunity many undergraduate students will ever get to pursue, for it is often reserved for post graduate students. However, it taught me how to persevere and become creative in designing a super fun study that I crafted with the help of Dr. Hunter's team. It taught me about the research process and how much background work goes into designing and executing a study before any participants are even brought in. It also guided me to my next research project of determining the real world changes in running performance of elite runners who wear the new Nike Vaporfly Next% shoes.

The Marathon shoes project was extremely tedious and challenged me daily to reflect on why this was something that interested me and that could help advance my profession. I want to work with high level athletes, and that means being knowledgeable about how legal external ergogenic aids can potentially support my athletes in reaching their athletic milestones. Thus, this project was a great starting point to educate myself on our findings that these Nike shoes may act as an aid in running in elite marathon runners.

Recently, I have joined the AHPRC's COVID-19 Survivors Study, which is studying how the COVID-19 virus has impacted individual's physiological and psychological functioning in the months after recovery. This study is incredibly important to me, as many of my future

patients will likely have been diagnosed with COVID-19 and may also have underlying conditions that impact their functional capacity. If practitioners do not understand the residual functional effects of this virus, they will not be able to appropriately treat their patients and help them make the functional improvements that they need.

Being a researcher requires a mentality of wanting to know more about something and figuring it out yourself rather than waiting for someone else to discover it. I know I would much rather engage in the research and data collection and analysis aspects rather than sit down and read about it later from someone else. I believe research is a responsibility I must undertake now as a physical therapy student to improve my future patient's care.

