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GRADUATE STUDENT COMPLETES STUDY IN EPNL

March 31, 2021

By Emily Holmes

Lindenwood University Graduate student Kayla Ratliff recently conducted and finished her first study in the EPNL at Lindenwood University. Her study was titled, "Metabolic Impact of Protein Feeding Prior to Long-duration Moderate-intensity Treadmill Exercise on Females in a Fasted State". Ratliff wanted to create a study that was focused on women seeing as how most studies in the field are male-dominated. "I wanted to see if fasted exercise was more successful at burning fat compared to consuming carbohydrate, whey protein, or casein protein prior to a 60-minute moderate-intensity (incline walking) exercise bout."

The research lab had conducted a similar study in 2018 using an all-male group. They changed the experiment slightly this time around. She started her study in January of 2019 when she started her graduate program Ratliff's study consisted of 15 women who came into the lab 5 times. The first time that the women came into the lab was for the participants to give their written consent, complete blood testing and complete a maximal exercise test on a treadmill. Visits 2-5 are identical for the most part according to Ratliff.

"Visits 2-5 were identical apart from the supplement that was consumed prior to exercise (each participant completed all four conditions). These testing days were ~4-5 hours long and consisted of four resting metabolic rate (RMR) tests (completed pre-exercise, immediately post-exercise, 1-hr post-exercise, and 2-hr post exercise), four blood draws to assess insulin, glycerol, and free-fatty acids (completed at the same time points as the RMRs), consuming their supplement, and then a 60-minute long exercise bout that consisted of incline-walking at a moderate-intensity."

Ratliff was uncertain if she was going to be able to get all 15 participants completed on time with the pandemic and the limited capacity that the EPNL was operating at. She is very thankful for her teammates who assisted her in her study through the long 8 hour days and her professors. She says, "I honestly am so happy that I became part of the EPNL because the faculty and staff there have helped me out in so many ways. Dr. Kerksick, Dr. Sunderland, and Dr. Mumford were always available and willing to help me in whatever way." Ratliff has been awarded the Graduate Scholar Award for the

School of Health Sciences this year and even though she has only been at Lindenwood for 2.5 years, she feels as though she has made her mark.