

Laidlaw Summer Reflection

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This summer I was fortunate enough to be a part of the Laidlaw foundation and the 2022 Laidlaw Undergraduate Research and Leadership Programme. Working with Dr. Anthony C. Ruocco, Jacob Koudys, Michael Carnovale, and others within the Clinical Neuroscience Laboratory at the University of Toronto, I was able to accomplish a preliminary analysis of response inhibition between suicide ideators and suicide attempters. This study is part of a bigger study aiming to create a suicide risk algorithm, funded by the American Foundation for Suicide Prevention, to try and predict suicide attempts to direct preventative measures to those who need it. My 6 weeks started on June 15th and ended on July 27th. Throughout these 6 weeks, I was able to test participants and gather data off their performances on the Connors Continuous Performance Task and the Delis Kaplan Executive Function System Colour Word Interference Test. Unfortunately, throughout the 6 weeks, we ran into some issues that delayed the participant recruitment and ultimately delayed the progression of the study. The participant recruitment process included an MRI scan as the first step of their testing session.

Unfortunately, issues with our MRI technician arose and caused a complete stoppage in this process and ultimately delayed our participant recruitment. This is one of the main reasons as to why the results gathered from this preliminary analysis were statistically insignificant (very low sample size). Because of this delay, I had to extend my 6 weeks to a 7 week study to accumulate enough participants to at least comment on the effect sizes of the results gathered. Nevertheless, this summer was extremely educational as I got to experience the full research

process from start to finish and was able to work with people very experienced in the field of research. The major themes of learning this past summer came from the different responsibilities allocated through the summer. During the cognitive testing portion, I learned about neuropsychological tests and how to administer them, learning the importance of standardization. Most importantly, I learned how to interact and administer these tests to participants suffering from mental disorders such as major depressive disorder (MDD) and borderline personality disorder (BPD). During the actual writing of the research paper, I learned how to conduct a meta-analysis, how to perform literature reviews, and the whole process of scientific writing. Learning all the different components required for a research paper will really help me in future writings. Finally, during the data analysis portion of the summer, I was able to learn how to conduct a preliminary statistical analysis using the program JASP. Overall, I am truly grateful for this entire summer and for the once in a lifetime opportunity to learn as much as I did. Thank you to the Laidlaw foundation and the Laidlaw Scholars Undergraduate Research and Leadership Programme and to everyone at the Clinical Neuroscience Laboratory.