

C.J. BRUSH, Ph.D.
Curriculum Vitae

ADDRESS

Department of Movement Sciences
College of Education, Health, and Human Sciences
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CONTACT INFORMATION

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EDUCATION

- 2019 **Doctor of Philosophy**
Kinesiology and Applied Physiology
Rutgers University, New Brunswick, NJ
- 2014 **Bachelor of Science - *Summa Cum Laude***
Exercise Science & Sport Studies (Economics minor)
Rutgers University, New Brunswick, NJ
-

PUBLICATIONS

Book Chapters

1. **Brush, C. J.**, & Burani, K. (2021). Exercise and physical activity for depression. In Z. Zenko & L. Jones (Eds.), *Essentials of exercise and sport psychology: An open access textbook* (pp. 338-368). Society for Transparency, Openness, and Replication in Kinesiology.
2. Alderman, B. L., **Brush, C. J.**, & Bocchine, A. J. (2020). Depression treatment by exercise and physical activity. In D. Hackfort & R. J. Schinke (Eds.), *The Routledge international encyclopedia of sport and exercise psychology: Applied and practical measures (Volume 2)* (pp. 239-253). New York, NY: Routledge.
3. Alderman, B. L., **Brush, C. J.**, & Ehmann, P. J. (2019). Effects of exercise on anxiety and stress-sensitive psychopathology. In M. H. Anshel, S. J. Petruzzello, & E. E. Labbe (Eds.), *APA handbook of sport and exercise psychology: Volume 2* (pp. 345-361). Washington, D.C.: American Psychological Association.

Refereed Journal Articles (in print or accepted)

1. Bowyer, C., **Brush, C. J.**, Patrick, C. J., & Hajcak, G. (in press). Effort and appetitive responding in depression: Examining deficits in motivational and consummatory stages of reward processing using the effort-doors task. *Biological Psychiatry: Global Open Science*.

2. Santopetro, N. J., Mulligan, E. M., **Brush, C. J.**, & Hajcak, G. (2022). Reduced P300 amplitude is consistently associated with trait anhedonia across repeated assessments. *Psychophysiology*, e14127.
3. Burani, K., **Brush, C. J.**, Shields, G. S., Klein, D. N., Nelson, B. D., Slavich, G. S., & Hajcak, G. (in press). Greater cumulative lifetime stressor exposure predicts a blunted RewP in adolescent girls over two years. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*.
4. **Brush, C. J.**, Kallen, A. M., Meynadasy, M. A., King, T., Hajcak, G., & Sheffler, J. L. (2022). The P300, loneliness, and depression in older adults. *Biological Psychology*, 171, 108339.
5. Meynadasy, M. A., **Brush, C. J.**, Sheffler, J., Mach, R., Carr, D., Kiosses, D., Hajcak, G., & Sachs-Ericsson, N. (2022). Emotion regulation and the late positive potential (LPP) in older adults. *International Journal of Psychophysiology*, 177, 202-212.
6. Burani, K., **Brush, C. J.**, Shields, G., Klein, D. N., Nelson, B. D., Slavich, G. M., & Hajcak, G. (in press). Cumulative lifetime acute stressor exposure interacts with reward responsiveness to predict longitudinal increases in depression severity in adolescence. *Psychological Medicine*.
7. Klawohn, J., Joyner, K., Santopetro, N., **Brush, C. J.**, & Hajcak, G. (2022). Depression reduces neural correlates of reward salience with increasing effort over the course of the progressive ratio task. *Journal of Affective Disorders*, 307, 294-300.
8. Dell'Acqua, C., **Brush, C. J.**, Burani, K., Santopetro, N. J., Klawohn, J., Benvenuti, S. M., & Hajcak, G. (2022). Reduced electrocortical responses to pleasant pictures in depression: A brief report on time-domain and time-frequency delta analyses. *Biological Psychology*, 108302.
9. Burani, K., **Brush, C. J.**, Gallyer, A., Joiner, T., Nelson, B., & Hajcak, G. (2021). Maternal suicidality interacts with blunted reward processing to prospectively predict increases in depressive symptoms in 8-to-14-year-old girls. *International Journal of Psychophysiology*, 170, 67-74.
10. Klawohn, J., **Brush, C. J.**, & Hajcak, G. (2021). Neural responses to reward and pleasant pictures prospectively predict remission from depression. *Journal of Abnormal Psychology*, 130(7), 702-712.
11. Jordan, C. D., Stewart, R., **Brush, C. J.**, Cogle, J., & Hajcak, G. (2021). Appearance concerns are uniquely associated with LPP amplitude to pictures of oneself. *Social Cognitive and Affective Neuroscience*, 00, 1-7.
12. **Brush, C. J.**, Burani, K., Schmidt, K. M., Santopetro, N. J., & Hajcak, G. (2021). The impact of a single session of aerobic exercise on positive emotional reactivity in depression: Insight into individual differences from the late positive potential. *Behaviour Research and Therapy*, 144, 103914.
13. Santopetro, N. J., **Brush, C. J.**, Burani, K., Bruchnak, A., & Hajcak, G. (2021). Doors P300 moderates the relationship between reward positivity and current depression status in adults. *Journal of Affective Disorders*, 294, 776-785.

14. Bowyer, C., **Brush, C. J.**, Threadgill, H., Harmon-Jones, E., Treadway, M., Patrick, C. J., & Hajcak, G. (2021). The effort-doors task: Examining the temporal dynamics of effort-based reward processing using ERPs. *NeuroImage*, 228, 117656.
15. Foell, J., Klawohn, J., Bruchnak, A., **Brush, C. J.**, Patrick, C.J., & Hajcak, G. (2021). Ventral striatal activation during reward differs between major depression with and without impaired mood reactivity. *Psychiatry Research: Neuroimaging*, 313, 111298.
16. Clayson, P. E., **Brush, C. J.**, & Hajcak, G. (2021). Data quality and reliability metrics for event-related potentials (ERPs): The utility of subject-level reliability. *International Journal of Psychophysiology*, 165, 121-136.
17. Santopetro, N. J., **Brush, C. J.**, Bruchnak, A., Klawohn, J., & Hajcak, G. (2021). A reduced P300 prospectively predicts increased depressive severity in adults with clinical depression. *Psychophysiology*, 58(4), e13767.
18. Ehmann, P. J., **Brush, C. J.**, Bernard, L., Dowden, R., Ogilvie, A., Wisniewski, P. J., Piersol, K., McCarthy, T., & Merrill, G. F. (2021). Influences on blood pressure in university students. *Clinical Medical Reviews and Reports*, 4(1), 1-8.
19. **Brush, C. J.**, Hajcak, G., Bocchine, A. J., Ude, A. A., Muniz, K. M., Foti, D., & Alderman, B. L. (2020). A randomized trial of aerobic exercise for major depression: Examining neural indicators of reward and cognitive control as predictors and treatment targets. *Psychological Medicine*, 1-11.
20. **Brush, C. J.**, Olson, R. L., Bocchine, A. J., Selby, E. A., & Alderman, B. L. (2020). Acute aerobic exercise increases respiratory sinus arrhythmia reactivity and recovery to a sad film among individuals at risk for depression. *International Journal of Psychophysiology*, 156, 69-78.
21. **Brush, C. J.**, Bocchine, A. J., Olson, R. L., Ude, A. A., Dhillon, S. K., & Alderman, B. L. (2020). Does aerobic fitness moderate age-related cognitive slowing? Evidence from P3 and lateralized readiness potentials. *International Journal of Psychophysiology*, 155, 63-71.
22. **Brush, C. J.**, Foti, D., Bocchine, A. J., Muniz, K. M., Gooden, M. J., Spaeth, A. M., Miller, M. W., & Alderman, B. L. (2020). Acute exercise enhances positive emotional reactivity in individuals with depressive symptoms: Evidence from neural responses to reward and emotional content. *Mental Health and Physical Activity*, 19, 100339.
23. **Brush, C. J.**, Olson, R. L., Ehmann, P. J., Bocchine, A. J., Bates, M. E., Buckman, J. F., ... Alderman, B. L. (2019). Lower resting cardiac autonomic balance in young adults with current major depression. *Psychophysiology*, 56(8), e13385.
24. Lesnewich, L. M., Conway, F. N., Buckman, J. F., **Brush, C. J.**, Ehmann, P. J., Eddie, D., ... Bates, M. E. (2019). Associations of depression severity with heart rate and heart rate variability in young adults across normative and clinical populations. *International Journal of Psychophysiology*, 142, 57-65.
25. Alderman, B. L., Olson, R. L., & **Brush, C. J.** (2019). Using event-related potentials to study the effects of chronic exercise on cognitive function. *International Journal of Sport and Exercise Psychology*, 17(2), 106-116.

26. Ehmann, P. J., **Brush, C. J.**, Bozzini, B., Dowden, R. A., Ogilvie, A., Wisniewski, P. J., Bernard, L. P., & Merrill, G. F. (2019). The effects of salt and water loading on kidney function in healthy undergraduates. *Advances in Applied Physiology*, 4(2), 11-18.
27. **Brush, C. J.**, Ehmann, P. J., Hajcak, G., Selby, E. A., & Alderman, B. L. (2018). Using multilevel modeling to examine blunted neural responses to reward in major depression. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*, 3(12), 1032-1039.
28. **Brush, C. J.**, Ehmann, P. J., Olson, R. L., Bixby, W. R., & Alderman, B. L. (2018). Do sport-related concussions result in long-term cognitive impairment? A review of event-related potential research. *International Journal of Psychophysiology*, 132 (Part A), 124-134.
29. Olson, R. L., **Brush, C. J.**, Ehmann, P. J., Buckman, J. F., & Alderman, B. L. (2018). A history of sport-related concussion is associated with sustained deficits in conflict and error monitoring. *International Journal of Psychophysiology*, 132 (Part A), 145-154.
30. Merrill, G. F., **Brush, C. J.**, Ehmann, P. J., & Bernard, L. P. (2017). Acetaminophen and skeletal muscle. *Trends in Cellular & Molecular Biology*, 67, 67-76.
31. Olson, R. L., **Brush, C. J.**, Ehmann, P. J. & Alderman, B. L. (2017). A randomized trial of aerobic exercise on cognitive control in major depressive disorder. *Clinical Neurophysiology*, 128(6), 903-913.
32. Ehmann, P. J., **Brush, C. J.**, Olson, R. L., Bhatt, S. N., Banu, A. H., & Alderman, B. L. (2017). Active workstations do not impair executive function in young and middle-age adults. *Medicine and Science in Sports and Exercise*, 49(5), 965-974.
33. **Brush, C. J.**, Olson, R. L., Ehmann, P. J., Osovsky, S., & Alderman, B. L. (2016). Dose-response and time course effects of acute resistance exercise on executive function. *Journal of Sport & Exercise Psychology*, 38(4), 396-408.
34. Alderman, B. L., Olson, R. L., **Brush, C. J.**, & Shors, T. J. (2016). Mental and physical (MAP) training: Combining meditation and aerobic exercise reduces depression and rumination while enhancing synchronized brain activity. *Translational Psychiatry*, 6, e726.
35. Olson, R. L., Chang, Y. K., **Brush, C. J.**, Kwok, A. N., Gordon, V. X., & Alderman, B. L. (2016). Neurophysiological and behavioral correlates of cognitive control during low and moderate intensity exercise. *NeuroImage*, 131, 171-180.
36. Alderman, B. L., Olson, R. L., Bates, M. E., Selby, E. A., Buckman, J. F., **Brush, C. J.**, ... Shors, T. J. (2015). Rumination in major depressive disorder is associated with impaired conflict monitoring but preserved temporal dynamics of attention. *Frontiers in Human Neuroscience*, 9, 269.
37. Olson, R. L., **Brush, C. J.**, O'Sullivan, D. J., & Alderman, B. L. (2015). Psychophysiological and ergogenic effects of music in swimming. *Comparative Exercise Physiology*, 11(2), 79-87.

Conference Proceedings (in print or accepted)

***presenting author(s)**

1. ***Brush, C.J.**, Hajcak, G., & Alderman, B.L. (2021, October). Neural indicators of performance monitoring in depression: The error-related negativity and reward positivity as targets and predictors of response to aerobic exercise. Verbal presentation at the Virtual Annual Meeting of the *Society for Psychophysiological Research*.
2. *Meynadasy, M. A., **Brush, C. J.**, Sheffler, J., Kiosses, D., Sachs-Ericsson, N., & Hajcak, G. (2021, October). Internal consistency and stability of the late positive potential during an emotion regulation task in older adults. Poster presentation at the Virtual Annual Meeting of the *Society for Psychophysiological Research*.
3. *Kallen, A. M., **Brush, C. J.**, Meyer, A., & Hajcak, G. (2021, October). Differential within-task change of infrequent go and infrequent no-go P300 amplitude in adolescents. Poster presentation at the Virtual Annual Meeting of the *Society for Psychophysiological Research*.
4. *Santopetro, N., Mulligan, E., **Brush, C. J.**, & Hajcak, G. (2021, October). Effects of multiple assessment and depressive symptoms on P300 amplitude. Poster presentation at the Virtual Annual Meeting of the *Society for Psychophysiological Research*.
5. ***Brush, C. J.**, & Hajcak, G. (2021, June). Acute exercise effects on positive emotional reactivity in major depression: Evidence from the late positive potential. Verbal presentation at the Virtual Annual Meeting of *North American Society for Psychology of Sport and Physical Activity*.
6. *Sheffler, J. L, Hajcak, G., Vied, C., **Brush, C. J.**, Meynadasy, M. A., & Mach, R. J. (2020, November). P300 amplitude in relation to age, neuropsychological performance, and genetic risk for Alzheimer's disease. Poster presented at the Annual Meeting Online of *The Gerontological Society of America*.
7. *Meynadasy, M. A., **Brush, C. J.**, Mach, R. Sheffler, J., Kiosses, D., Sachs-Ericsson, N., & Hajcak, G. (2020, October). Emotion regulation, depression, and the LPP in older adults. Poster presented virtually at the Annual Meeting of the *Society for Psychophysiological Research*.
8. *Bruchnak, A., **Brush, C.J.**, Klawohn, J., & Hajcak, G. (2020, October). Examining the role of event-related potentials during self-referential processing in current and remitted depression. Poster presented virtually at the Annual Meeting of the *Society for Psychophysiological Research*.
9. *Jordan, C. D., Stewart, R., **Brush, C. J.**, Cogle, J., & Hajcak, G. (2020, October). Appearance concerns are associated with neural response to self-relevant stimuli. Poster presented virtually at the Annual Meeting of the *Society for Psychophysiological Research*.
10. ***Brush, C. J.**, Hajcak, G., & Alderman, B. L. (2020, May). Neural responsiveness to reward and cognitive control following an eight-week aerobic exercise trial for depression. Verbal presentation at the Annual Meeting of the *American College of Sports Medicine*, San Francisco, CA.
11. *Bocchine, A. J., **Brush, C. J.**, Ude, A. A., Pappas, G. H., Piersol, K. L., & Alderman, B. L. (2020, May). Does an acute bout of aerobic exercise bolster reactivity to a sad mood induction in clinically depressed individuals? A study of responders and non-responders.

- Poster presentation at the Annual Meeting of the *American College of Sports Medicine*, San Francisco, CA.
12. ***Brush, C. J** & Alderman, B. L. (2019, November). The effects of moderate-intensity aerobic exercise on reward sensitivity and emotional reactivity among women with depressive symptoms. Verbal presentation at the Annual Meeting of the *Association for Behavioral and Cognitive Therapies*, Atlanta, GA.
 13. ***Brush, C. J.**, Alderman, B. L., & Hajcak, G. (2019, September). Identifying optimal task length to elicit the largest between group effects in reward processing during a simple gambling task. Poster presentation at the Annual Meeting of *Society for Psychophysiological Research*, Washington, DC.
 14. ***Brush, C. J.**, Foti, D., Miller, M. W., Bocchine, A. J., Muniz, K. M., Gooden, M. J., & Alderman, B. L. (2019, September). Acute aerobic exercise boosts emotional reactivity to pleasant images but does not impact reward processing. Poster presentation at the Annual Meeting of *Society for Psychophysiological Research*, Washington, DC.
 15. *Pappas, G., Ude, A., Piersol, K., Bocchine, A. J., **Brush, C. J.**, Erickson, M., Silverstein, S., & Alderman, B. L. (2019, September). Does aerobic fitness protect against impaired cognition in first-episode psychosis? Evidence from the P3 and lateralized readiness potentials. Poster presentation at the Annual Meeting of *Society for Psychophysiological Research*, Washington, DC.
 16. *Bocchine, A. J., **Brush, C. J.**, Ude, A. A., Pappas, G., Muniz, K. M., & Alderman, B. L. (2019, June). Aerobic fitness moderates dynamic processing of negative emotional stimuli in depression. Verbal presentation at the Annual Meeting of *North American Society for Psychology of Sport and Physical Activity*, Baltimore, MD.
 17. *Ude, A. A., *Pappas, G., **Brush, C. J.**, Bocchine, A. J., Silverstein, S. M., Erickson, M. A., & Alderman, B. L. (2019, June). The moderating role of aerobic fitness on cognition in first-episode schizophrenia: Evidence from the P3 event-related potential. Poster presentation at the Annual Meeting of *North American Society for Psychology of Sport and Physical Activity*, Baltimore, MD.
 18. *Bocchine, A. J., Alderman, B. L., **Brush, C. J.**, & Margetich, A. (2019, April). The effects of acute and chronic exercise on anxiety sensitivity: A meta-analysis. *Annals of Behavioral Medicine*, 52, S652. Poster presentation at the Annual Meeting of the *Society for Behavioral Medicine*, Washington, DC.
 19. ***Brush, C. J.**, Ehmann, P. J., Hajcak, G., Selby, E. A., & Alderman, B. L. (2018, October). Using multilevel modeling to examine blunted neural responses to reward in major depression. Poster presentation at the Annual Meeting of the *Society for Psychophysiological Research*, Quebec City, QC.
 20. ***Brush, C. J.**, Ehmann, P. J., & Alderman, B. L. (2018, October). Influence of comorbid anxiety and depression on error-related brain activity. Poster presentation at the Annual Meeting of the *Society for Psychophysiological Research*, Quebec City, QC.

21. *Bocchine, A. J., **Brush, C. J.**, Ehmann, P. J., & Alderman, B. L. (2018, October). Selective impairments in recognition memory among individuals with MDD. Poster presentation at the Annual Meeting of the *Society for Psychophysiological Research*, Quebec City, QC.
22. Ehmann, P. J., ***Brush, C. J.**, Bocchine, A. J., & Alderman, B. L. (2018, October). The reliability and convergent validity of the P3 cognitive ERP elicited by traditional flanker and oddball paradigms. Poster presentation at the Annual Meeting of the *Society for Psychophysiological Research*, Quebec City, QC.
23. ***Brush, C. J.**, Ehmann, P. J., Olson, R. L., Bocchine, A. J., & Alderman, B. L. (2018, June). Fitness as a moderator of the aging and cognition relationship: An ERP study. Verbal presentation at the Annual Meeting of the *North American Society for Psychology of Sport and Physical Activity*, Denver, CO.
24. *Muniz, K. M., **Brush, C. J.**, Ehmann, P. J., Bocchine, A. J., & Alderman, B. L. (2018, June). Attentional focus manipulations on affective, exertional, and physiological responses to maximal exercise. Poster presentation at the Annual Meeting of the *North American Society for Psychology of Sport and Physical Activity*, Denver, CO.
25. *Gooden, M. J., Muniz, K. M., **Brush, C. J.**, Ehmann, P. J., Bocchine, A. J., & Alderman, B. L. (2018, June). The effects of acute exercise on reward processing during a monetary gambling task. Poster presentation at the Annual Meeting of the *North American Society for Psychology of Sport and Physical Activity*, Denver, CO.
26. *Ehmann, P. J., **Brush, C. J.**, Bocchine, A. J., & Alderman, B. L. (2018, June). Acute aerobic exercise improves emotion regulation: Evidence from the late positive potential. Verbal presentation at the Annual Meeting of the *North American Society for Psychology of Sport and Physical Activity*, Denver, CO.
27. ***Brush, C. J.**, Ehmann, P. J., & Alderman, B. L. (2018, April). Prediction of treatment response to exercise in adults with major depressive disorder. Poster presentation at the Annual Meeting of the *Society of Behavioral Medicine*, New Orleans, LA.
28. *Radler, D. R., Griehs, R., Banu, A. H., **Brush, C. J.**, Ehmann, P. J., & Alderman, B. L. (2018, April). Relationship between changes in weight, physical activity and executive function. *Annals of Behavioral Medicine*, 52, S93. Poster presentation at the Annual Meeting of the *Society for Behavioral Medicine*, New Orleans, LA.
29. *Bocchine, A. J., **Brush, C. J.**, Ehmann, P. J., & Alderman, B. L. (2017, June). Autonomic and behavioral responses to an emotional Stroop task in high and low anxious individuals. Poster presentation at the Annual Meeting of the *Society for Psychophysiological Research*, Vienna, Austria.
30. ***Brush, C. J.**, Ehmann, P. J., Olson, R. L., Bocchine, A. J., & Alderman, B. L. (2017, June). Characterizing treatment response to 8-weeks of aerobic exercise in major depressive disorder. Poster presentation at the Annual Meeting of the *North American Society for Psychology of Sport and Physical Activity*, San Diego, CA.
31. *Ehmann, P. J., **Brush, C. J.**, Olson, R. L., Bocchine, A. J., Bhatt, S. N., Banu, A. H., & Alderman, B. L. (2017, June). Age and task-specific moderators of the aerobic fitness and

- executive function relationship. Poster presentation at the Annual Meeting of the *North American Society for Psychology of Sport and Physical Activity*, San Diego, CA.
32. *Bocchine, A. J., Olson, R. L., **Brush, C. J.**, Ehmann, P. J., & Alderman, B. L. (2017, June). Effects of an 8-week moderate-intensity aerobic exercise intervention on episodic memory and cognitive control. Poster presentation the Annual Meeting of the *American College of Sports Medicine*, Denver, CO.
 33. ***Brush, C. J.** & Alderman, B. L. (2017, June). The relation of fitness and life stress on the temporal dynamics of cognition in older adults: Evidence from the P3 and lateralized readiness potentials. Verbal presentation at the Annual Meeting of the *American College of Sports Medicine*, Denver, CO.
 34. *Alderman, B. L., Olson, R. L., **Brush, C. J.**, Ehmann, P. J., & Shors, T. J. (2016, September). Combining aerobic exercise and focused-attention meditation to target cognitive control processes in major depressive disorder. Verbal presentation at the Annual Meeting of the *Society for Psychophysiological Research*, Minneapolis, MN.
 35. ***Brush, C. J.**, Olson, R. L., Ehmann, P. J., & Alderman, B. L. (2016, September). Effects of an 8-week moderate-intensity aerobic exercise intervention on conflict monitoring processes in major depressive disorder. Poster presentation at the *Society for Psychophysiological Research*, Minneapolis, MN. ****Won Graduate Student Poster Award.**
 36. *Ehmann, P. J., **Brush, C. J.**, Olson, R. L., & Alderman, B. L. (2016, September). Resting cardiac autonomic balance (CAB) predicts current major depressive disorder. Poster presentation at the *Society for Psychophysiological Research*, Minneapolis, MN.
 37. ***Brush, C. J.**, Olson, R. L., Ehmann, P. J., James-Palmer, A. J., Schreier, C. D., & Alderman, B. L. (2016, June). Event-related potential indices of cognitive function in long-term yoga practitioners. Poster presentation at the Annual Meeting of the *North American Society for the Psychology of Sport and Physical Activity*, Montreal, QC.
 38. ***Brush, C. J.**, Olson, R. L., Ehmann, P. J., & Alderman, B. L. (2016, June). The influence of sport-related concussion on autonomic and cognitive function. Poster presentation at the Annual Meeting of the *American College of Sports Medicine*, Boston, MA.
 39. *Olson, R. L., **Brush, C. J.**, Ehmann, P. J., & Alderman, B. L. (2016, June). Effects of an 8-week aerobic exercise intervention on ruminative thought patterns in major depressive disorder. Verbal presentation at the Annual Meeting of the *American College of Sports Medicine*, Boston, MA.
 40. *Ehmann, P. J., Olson, R. L., **Brush, C. J.**, & Alderman, B. L. (2016, June). Sexual dimorphic association between cardiorespiratory fitness and cardiac autonomic responses to mental challenge. Poster presentation at the Annual Meeting of the *American College of Sports Medicine*, Boston, MA.
 41. *Ehmann, P. J., Olson, R. L., **Brush, C. J.**, & Alderman, B. L. (2016, June). Sexual dimorphic association between cardiorespiratory fitness and cardiac autonomic responses to mental challenge. Poster presentation at the Annual Meeting of the *American College of Sports Medicine*, Boston, MA.

42. *Banu, L. M., Buckman, J. F., Olson, R. L., **Brush, C. J.**, Eddie, D., Peyser, D., ... Alderman, B. L. (2016, April). Relationships between alcohol use, depression, and neurocardiac functioning. Poster presentation at the Annual Meeting of the *APA Division 50 Collaborative Perspectives on Addiction*, San Diego, CA.
43. *Millon, E. M., Alderman, B. L., Olson, R. L., **Brush, C. J.**, & Shors, T. J. (2016, April). Mental and physical (MAP) training: A neurogenesis-inspired intervention that turns rumination into reflection. Poster presentation at the *2016 Anxiety and Depression (ADAA) Conference*, Philadelphia, PA.
44. *Olson, R. L., ***Brush, C. J.**, del Prado, K., & Alderman, B. L. (2015, October). Neural responses to food images in normal weight, overweight, and obese individuals. *Psychophysiology*, 52, S75. Poster presentation at the Annual Meeting of the *Society for Psychophysiological Research*, Seattle, WA.
45. Alderman, B. L., *Olson, R. L., ***Brush, C. J.**, & Shors, T. J. (2015, October). Mental and physical (MAP) training as a neurobehavioral intervention for cognitive control and rumination in depression. *Psychophysiology*, 52, S34. Poster presentation at the Annual Meeting of the *Society for Psychophysiological Research*, Seattle, WA.
46. ***Brush, C. J.**, Olson, R. L., Osovsky, S., & Alderman, B. L. (2015, June). Dose-response and time-course effects of acute resistance exercise on core executive functions. Verbal presentation at the Annual Meeting of the *North American Society for the Psychology of Sport and Physical Activity*, Portland, OR.
47. *Alderman, B. L., Olson, R. L., **Brush, C. J.**, & Shors, T. J. (2015, June). Effects of a combined mental and physical (MAP) training intervention on depressive symptoms, rumination, mindfulness, and aerobic fitness in major depressive disorder. Verbal presentation at the Annual Meeting of the *North American Society for the Psychology of Sport and Physical Activity*, Portland, OR.
48. ***Brush, C. J.**, Olson, R. L., Townsend, M. A., Perucho, J. F., & Alderman, B. L. (2014, October). Concussion history and years of high-risk sport participation on cognitive control. *International Journal of Exercise Science: Conference Proceedings*, 9(3), 14. Poster presented at the *37th Annual Scientific Meeting of the Mid-Atlantic Regional Chapter of the American College of Sports Medicine*, Harrisburg, PA.

RESEARCH GRANTS

Awarded

- 2021-2022 **National Institute of Mental Health (F32; MH125504)**
Examining effort-based reward processing and lifetime stress in relation to depression during adolescence
 PI (Sponsor: Greg Hajcak; Collaborators/Consultants: Alexandria Meyer, George Slavich, and Michael Treadway); Total costs: \$205,410 (Completed 13 of 36 months)
- 2018-2019 **Society for Psychophysiological Research (Research Training Fellowship)**

Examining neural responses to reward and cognitive control in major depression using time-frequency and principal components analytical approaches
 PI (Sponsor: Dan Foti); Total costs: \$2,500

MENTORED GRANTS

Awarded

2020-Present **National Institute of Mental Health (T32; MH093311)**
Integrated Clinical Neuroscience Training for Translational Research
Neural risk markers of Alzheimer's Disease and their modulation through exercise
 Co-Mentor (PI: Melissa Meynadasy); Total costs: \$60,540

AWARDS AND HONORS

2019 *American Kinesiology Association* Regional Doctoral Scholar Award
 2016 *Society for Psychophysiological Research (SPR)* 56th Annual Meeting Student Poster Award
 2016 National Institute of Mental Health (NIMH) UC-Davis ERP Boot Camp Fellow
 2015-2018 Rutgers Teaching Assistant Professional Development Award
 2015-2019 Rutgers School of Graduate Studies Conference Travel Award
 2014 Graduated Summa Cum Laude – Rutgers University
 2013-2014 Rutgers Aresty Research Center Undergraduate Research Fellowship
 2013-2014 Rutgers University Charles H. Winfield Scholarship
 2012 Rutgers University Undergraduate Academic Excellence Award
 2011-2014 Rutgers University The Dean's List

PROFESSIONAL EXPERIENCE

2022-Present **Assistant Professor (Tenure-Track)**
Department of Movement Sciences
 University of Idaho, Moscow, ID

2019-2022 **Postdoctoral Research Scholar**
Department of Psychology
 Florida State University, Tallahassee, FL

2014-2019 **Graduate Research Assistant**
Rutgers Exercise Psychophysiology Laboratory
 Rutgers University, New Brunswick, NJ

2013-2014 **Undergraduate Research Assistant**
Rutgers Exercise Psychophysiology Laboratory
 Rutgers University, New Brunswick, NJ

TEACHING EXPERIENCE

2022-Present **Instructor**

Sport Psychology
Department of Movement Sciences
University of Idaho, Moscow, ID

2019-2021

Instructor

Health Psychology
Department of Psychology
Florida State University, Tallahassee, FL

2017-2019

Head Teaching Assistant

Systems Physiology Lecture and Laboratory
Advisor: Dr. Gary Merrill
Division of Life Sciences
Rutgers University, Piscataway, NJ

2016

Graduate Teaching Assistant

Systems Physiology Lecture and Laboratory
Advisor: Dr. Gary Merrill
Division of Life Sciences
Rutgers University, Piscataway, NJ

2015-2016

Graduate Teaching Assistant

General Biology Workshop
Advisor: Dr. Gregory Transue
Division of Life Sciences
Rutgers University, Piscataway, NJ

2015

Graduate Teaching Assistant

Exercise Physiology Laboratory
Advisor: Dr. Shawn M. Arent
Department of Exercise Science & Sport Studies
Rutgers University, New Brunswick, NJ

2014

Course Instructor

Foundations of Exercise Science & Sport Studies
Advisor: Dr. Brandon L. Alderman
Department of Exercise Science & Sport Studies
Rutgers University, New Brunswick, NJ

2012-2013

Undergraduate Teaching Assistant

Functional Human Anatomy Laboratory
Department of Exercise Science & Sport Studies
Rutgers University, New Brunswick, NJ

INVITED TALKS AND GUEST LECTURES

Invited Talks

1. **Brush, C. J.** (2019, June). Benefits of physical activity on mental health. *Living Well: Rutgers Conference on Lifestyle and Health*. Conference conducted at Rutgers, The State University of New Jersey, New Brunswick, NJ.
2. **Brush, C. J.** (2019, May). Neural indicators of reward and cognitive control as predictors of response to aerobic exercise treatment for major depressive disorder. Talk conducted at the Laboratory for the Psychophysiological Analysis of Cognition, Emotion, and Reward in the Department of Psychological Sciences at Purdue University, West Lafayette, IN.
3. **Brush, C. J.** (2018, March). How does exercise reduce depression? Targeting cognitive and emotional biomarkers of depression. Talk conducted at Rutgers Robert Wood Johnson Medical School, Piscataway, NJ.

Guest Lectures

1. **Brush, C. J.** (2020). An introduction to the event-related potential technique and its application to translational behavioral science research. Center for Translational Behavioral Science, Florida State University, Tallahassee, FL.
2. **Brush, C. J.** (2019). A basic introduction into human-subjects research and conducting ethical research. Kinesiology and Applied Physiology 505: Research Methods, Department of Kinesiology & Health, Rutgers University, New Brunswick, NJ.
3. **Brush, C. J.** (2018). Using statistical techniques to guide basic research design. Kinesiology and Applied Physiology 505: Research Methods, Department of Kinesiology & Health, Rutgers University, New Brunswick, NJ.
4. **Brush, C. J.** (2017). Exercise as a treatment for depression. Exercise Science 455: Exercise Psychology, Department of Kinesiology & Health, Rutgers University, New Brunswick, NJ.
5. **Brush, C. J.** (2017). Using psychophysiological techniques in exercise psychology research. Exercise Science 455: Exercise Psychology, Department of Exercise Science & Sport Studies, Rutgers University, New Brunswick, NJ.
6. **Brush, C. J.** (2017). Integrating and implementing theories in physical activity. Exercise Science 455: Exercise Psychology, Department of Exercise Science & Sport Studies, Rutgers University, New Brunswick, NJ.
7. **Brush, C. J.** (2016). Exercise and cognitive function: Acute and chronic effects and methodological approaches. Exercise Science 455: Exercise Psychology, Department of Exercise Science & Sport Studies, Rutgers University, New Brunswick, NJ.
8. **Brush, C. J.** (2016). Integrating and implementing theories in physical activity. Exercise Science 455: Exercise Psychology, Department of Exercise Science & Sport Studies, Rutgers University, New Brunswick, NJ.
9. **Brush, C. J.** (2016). An introduction to the event-related brain potential technique: Recording and measurement considerations. Arts & Sciences 293: One Mind, Two Languages, School of Arts & Sciences Interdisciplinary Honors Program, Rutgers University, New Brunswick, NJ.

10. **Brush, C. J.** (2015). Exploring exercise science: An introduction to exercise and sport psychology research using neuroscientific techniques. First-Year Interest Group Seminar 120, School of Environmental & Biological Sciences, Rutgers University, New Brunswick, NJ.
11. **Brush, C. J.** (2015). Theories of physical activity and exercise behavior. Exercise Science 455: Exercise Psychology, Department of Exercise Science & Sport Studies, Rutgers University, New Brunswick, NJ.
12. **Brush, C. J.** (2014). Exercise and mental health: An overview of psychological outcomes and emotional wellbeing. Psychology 341: Abnormal Psychology, Department of Psychology, Rutgers University, Piscataway, NJ.

SERVICE

University and Departmental Service

Faculty Mentor, Florida State University Honors in the Major and Department of Independent Studies, 2021-Present

Committee Member, Florida State University Equity Research Center Events Committee, 2019

Teaching Assistant Orientation Leader for the Rutgers School of Graduate Studies TA Project Workshop, 2018

Assistant Professor Faculty Search Committee Member for the Rutgers Department of Kinesiology and Health – Graduate Student Representative, 2017

Departmental Chair Faculty Search Committee Member for the Rutgers Department of Kinesiology and Health – Graduate Student Representative, 2016

Faculty Mentor – First-Year Interest Group Seminars: Sport & Exercise Psychology, Fall/Spring 2015, Fall/Spring 2016, Fall 2017

Professional Society Service

Committee Member, Society for Psychophysiological Research Education and Training Committee, 2021-Present

Ad hoc Peer Reviewer

Behav Res Methods

Biol Psychiatry Cogn Neurosci Neuroimaging

BMJ Open

Brain Behav

Cereb Cortex

Cogn Affect Behav Neurosci

Cogn Dev

Cogn Process

Cortex

Front Hum Neurosci

Front Psychol

Int J Psychophysiol

Int Rev Sport Exerc Psychol

J Affect Disord

J Psychopath Clin Sci

J Sport Exerc Psychol

Ment Health Phys Act

Nurs Open

PLoS One

Psychol Med

Psychol Rep

Psychol Sport Exerc

Psychophysiology

Sci Rep

Sustainability

Theor Issues Ergon Sci

Note. Journals are listed using their NLM Title Abbreviation.

Ad hoc Textbook Reviewer

The Sport List at Routledge Books

Ad hoc Grant Reviewer

National Science Centre of Poland

Professional Memberships

Society of Behavioral Medicine (SBM), 2018-Present

North American Society for Psychology of Sport and Physical Activity (NASPSPA), 2015-Present

American College of Sports Medicine (ACSM), 2014-Present

Society for Psychophysiological Research (SPR), 2014-Present

Association for Behavioral and Cognitive Therapies (ABCT), 2019-2020

Mid-Atlantic Regional Chapter of American College of Sports Medicine (MARC-ACSM), Member, 2014

Professional Development

Florida State University Office of Research Compliance Responsible Conduct of Research Course, 2021

Florida State University K Scholar Program, 2020-2022

Florida State University Office of Postdoctoral Affairs Career Development Workshops, 2019-2022

Rutgers University Center of Alcohol Studies Emerging Addiction Science Seminar Series, 2018-2019

“What You Need to Know about Writing Grants: Tips and Techniques from Experts” Pre-Conference Workshop at the Society of Behavioral Medicine 39th Annual Meeting, 2018

Rutgers University 3-Minute Thesis (3MT) Participant, 2018

Structural Equation Modeling (SEM) and Multilevel Modeling (MLM Course at Rutgers University, 2017

Rutgers University Animal Lab Safety Workshop, 2016-2018

Rutgers University Teaching Assistant Project: Preparing for the Professoriate Workshop Series Certificate, 2016

Collaborative Institutional Training Initiative (CITI) for Biomedical/Clinical and Social/Behavioral/Epidemiologic Research, 2015, 2018, 2019

Rutgers University Brain Imaging Center (RUBIC) Neuroimaging Methods NSF-Sponsored Course, 2015

Rutgers University GradFund Mentoring Program for Securing External Funding, 2014-2015

NIH Ethical Scientific Conduct Course at Rutgers University, 2014

Weekly Seminar for Topics in Kinesiology & Applied Physiology, 2014-2019

“What is Cognitive Science?” Talk Series at Rutgers Center for Cognitive Science, 2014-2018

UC-Davis Center for Mind & Brain Mini ERP Boot Camp, 2014

Rutgers University Teaching Assistant Project Workshops for Professional Development, 2014-2017

Rutgers University Lab Safety Training Workshop, 2012-2019

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