

## **C.J. BRUSH, Ph.D.**

### **Curriculum Vitae**

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#### **ADDRESS**

School of Kinesiology  
College of Education  
Auburn University  
301 Wire Road  
Auburn, AL, USA, 36849

#### **CONTACT INFORMATION**

Email: [cjbrush@auburn.edu](mailto:cjbrush@auburn.edu)

#### **RESEARCH WEBSITES**

Lab Website: <http://www.cjbrush.com/>

Google Scholar: <https://scholar.google.com/citations?user=KcbjmRoAAAAJ&hl=en>

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#### **EDUCATION**

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| 2019 | <b>Doctor of Philosophy</b><br>Kinesiology and Applied Physiology<br>Rutgers University, New Brunswick, NJ<br>Dissertation: "Examining neural measures as treatment targets and predictors to exercise in depression"                                    |
| 2014 | <b>Bachelor of Science - <i>Summa Cum Laude</i></b><br>Exercise Science & Sport Studies (Economics minor)<br>Rutgers University, New Brunswick, NJ<br>Thesis: "Dose-response and time course effects of acute resistance exercise on executive function" |
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#### **PROFESSIONAL EXPERIENCE**

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| 2025-Present | <b>Assistant Professor (Tenure-Track)</b><br><i>School of Kinesiology</i><br>Auburn University, Auburn, AL                                  |
| 2022-2025    | <b>Assistant Professor (Tenure-Track)</b><br><i>Department of Movement Sciences</i><br>University of Idaho, Moscow, ID                      |
| 2019-2022    | <b>Postdoctoral Fellow</b><br><i>Department of Psychology</i><br>Florida State University, Tallahassee, FL                                  |
| 2014-2019    | <b>Graduate Researcher and Teaching Assistant</b><br><i>Department of Kinesiology &amp; Health</i><br>Rutgers University, New Brunswick, NJ |

2013-2014

**Undergraduate Researcher**

*Department of Exercise Science & Sport Studies*  
Rutgers University, New Brunswick, NJ

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**RESEARCH AND SCHOLARLY WORK**

**Refereed Journal Articles (n=55)**

1. **Brush, C. J.**, Merica, C. B., Orendorff, K., Knudson, K., Klein, L., & Egan, C. (in press). Why should kids move at school? *Frontiers for Young Minds*.
2. Egan, C. A., Orendorff, K., Merica, C. B., & **Brush, C. J.** (2025). Movement, my favourite thing: Children's perceptions of movement integration in school. *Curriculum Studies in Health and Physical Education*, 16(2), 291-304.
3. Santopetro, N. J., Thompson, B., Garron A., Keith, L., **Brush, C. J.**, Schmidt, B., & Hajcak, G. (2025). Systematic review and meta-analysis: Impact of unipolar depression on P300 amplitude and latency. *Neuroscience & Biobehavioral Reviews*, 106230.
4. Santopetro, N. J., Thompson, B., Albanese, B., **Brush, C. J.**, & Schmidt, N. B. (2025). Depression remission over six months characterized by elevated target-locked P300 ERP component: Prospective evidence employing an affective visual oddball task. *Psychophysiology*, 62(5), e70067.
5. Kallen, A. M., **Brush, C. J.**, Santopetro, N. J., Patrick, C. J., & Hajcak, G. (2025). The go/no-go P3 and depressive symptoms in adolescents: Trial-level change and mean amplitude relate differently to anhedonic versus negative mood symptoms. *Research on Child and Adolescent Psychopathology*, 53, 291-304.
6. Burani, K., **Brush, C. J.**, Eckel, L. A., & Hajcak, G. (2024). Acute stress-induced reductions in neural response to reward are related to acute stress-related increases in cortisol. *Psychophysiology*, 61(12), e14683.
7. **Brush, C. J.**, Keith, L. R., Santopetro, N. J., Burani, K., & Hajcak, G. (2024). Associations between physical activity, sedentary time, and neurocognitive function during adolescence: Evidence from accelerometry and the flanker P300. *Progress in Brain Research*, 286, 151-186.
8. Aguiar Bonfim Cruz, A. J., Brooks, S. J., Kleinkopf, K., **Brush, C. J.**, Irwin, G. L., Schwartz, M. G., Candow, D. G., & Brown, A. F. (2024). Creatine improves total sleep duration following resistance training days versus non-resistance training days among naturally menstruating females. *Nutrients*, 16(16), 2772.
9. Thompson, B., Meynadasy, M., Hajcak, G., & **Brush, C. J.** (2024). Accelerometer-based and self-reported physical activity and sedentary time and their relationships with the P300 in a go/no-go task in older adults. *Brain and Cognition*, 178, 106168.

10. Dell'Acqua, C., Messerotti Benvenuti, S., Cellini, N., **Brush, C. J.**, Ruggerone, A., & Palomba, D. (2024). Familial risk for depression is associated with reduced physical activity in young adults: Evidence from wrist-worn actigraphy. *Translational Psychiatry*, 14(1), 219.
11. Dluzniewski, A., Casanova, M. P., Ullrich-French, S., **Brush, C. J.**, Larkins, L. W., & Baker, R. T. (2024). Psychological readiness for injury recovery: Evaluating psychometric properties of the IPRRS and assessing group differences in injured physically active individuals. *BMJ Open Sport & Exercise Medicine*, 10, e001869.
12. Kao, S. C., **Brush, C. J.**, & Wang, C. H. (2024). A multimodal approach integrating cognitive and motor demands into physical activity for optimal mental health: Methodological issues and future directions. *Progress in Brain Research*, 286, 235-258.
13. Amir, N., Holbrook, A., Kallen, A., Santopetro, N., Klawohn, J., McGhie, S., Bruchnak, A., Lowe, M., Taboas, W., **Brush, C. J.**, & Hajcak, G. (2024). Multiple adaptive attention-bias-modification programs to alter normative increase in the error-related negativity in adolescents. *Clinical Psychological Science*, 12(3), 447-467.
14. Burani, K., **Brush, C. J.**, Shields, G. S., Klein, D. N., Nelson, B., Slavich, G. M., & Hajcak, G. (2023). Cumulative lifetime acute stressor exposure interacts with reward responsiveness to predict longitudinal increases in depression severity in adolescence. *Psychological Medicine*, 53(10), 4507-4516.
15. Santopetro, N. J., **Brush, C. J.**, Mulligan, E. M., & Hajcak, G. (2023). Influences of age and pubertal development on P300 amplitude trajectory across two years in female adolescents. *Developmental Cognitive Neuroscience*, 60, 101212.
16. Bowyer, C. B., **Brush, C. J.**, Patrick, C. J., & Hajcak, G. (2023). 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*, 3(4), 1073-1082.
17. Thompson, B., Santopetro, N. J., **Brush, C. J.**, Foti, D., & Hajcak, G. (2023). Neural deficits in anticipatory and consummatory reward processing are uniquely associated with current depressive symptoms in adolescence. *Psychophysiology*, 60(7), e14257.
18. Dell'Acqua, C., Hajcak, G., Amir, N., Santopetro, N. J., **Brush, C. J.**, & Meyer, A. (2023). Error-related brain activity in pediatric major depressive disorder: An ERP and time-frequency investigation. *International Journal of Psychophysiology*, 184, 100-109.
19. Burani, K., **Brush, C. J.**, Spahr, C., Slavich, G. M., Meyer, A., & Hajcak, G. (2023). Corporal punishment is uniquely associated with a greater neural response to errors and blunted neural response to rewards in adolescence. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*, 8(2), 210-218.
20. Dell'Acqua, C., Hajcak, G., Amir, N., Santopetro, N. J., **Brush, C. J.**, & Meyer, A. (2023). Error-related brain activity: A time-domain and time-frequency investigation in pediatric obsessive-compulsive disorder. *Psychophysiology*, 60(4), e14216.
21. **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.

22. 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.
23. Burani, K., **Brush, C. J.**, Shields, G. S., Klein, D. N., Nelson, B. D., Slavich, G. S., & Hajcak, G. (2022). Greater cumulative lifetime stressor exposure predicts blunted reward positivity in adolescent girls followed for 2 years. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*, 7(10), 1017-1024.
24. 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.
25. 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.
26. **Brush, C. J.**, Hajcak, G., Bocchine, A. J., Ude, A. A., Muniz, K. M., Foti, D., & Alderman, B. L. (2022). A randomized trial of aerobic exercise for major depression: Examining neural indicators of reward and cognitive control as predictors and treatment targets. *Psychological Medicine*, 52(5), 893-903.
27. 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.
28. Jordan, C. D., Stewart, R., **Brush, C. J.**, Cogle, J. R., & Hajcak, G. (2021). Appearance concerns are uniquely associated with LPP amplitude to pictures of oneself. *Social Cognitive and Affective Neuroscience*, 17(4), 430-436.
29. 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.
30. 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.
31. **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.
32. 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.
33. 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.

34. 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.
35. 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.
36. 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.
37. 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.
38. **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.
39. **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.
40. **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.
41. **Brush, C. J.**, Olson, R. L., Ehmann, P. J., Bocchine, A. J., Bates, M. E., Buckman, J. F., Leyro, T. M., & Alderman, B. L. (2019). Lower resting cardiac autonomic balance in young adults with current major depression. *Psychophysiology*, 56(8), e13385.
42. Lesnewich, L. M., Conway, F. N., Buckman, J. F., **Brush, C. J.**, Ehmann, P. J., Eddie, D., Olson, R. L., Alderman, B. L., & 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.
43. 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.
44. 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.
45. **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.

46. **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.
47. 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.
48. 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.
49. 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.
50. 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.
51. **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.
52. 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.
53. 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.
54. 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.
55. 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.

#### Book Chapters (n=5)

1. **Brush, C. J.**, & MacAlevy, G. M. (in press). EEG as a neurodiagnostic tool. In T. F. Farrer & R. Frost (Eds.), *Neurodiagnostic: Laboratory examinations for neuropsychologists*. Oxford University Press.
2. **Brush, C. J.**, MacAlevy, G. M., & Knudson, K. (2025). Emotional reactions to exercise. In M. Bigliassi & E. Filho (Eds.), *Sport and exercise psychophysiology* (pp. 327-354). Springer Nature.
3. **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.

4. 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). Routledge.
5. 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). American Psychological Association.

#### Conference Proceedings (n=78)

##### \*presenting author(s)

1. \***Brush, C. J.** (2025, October). Acute exercise and its effects on neural indicators of reward and neurocognitive function in adults with depressive symptoms. Verbal presentation at the Annual Meeting of the *Society for Psychophysiological Research*, Montreal, QC.
2. \***Brush, C. J.**, Bowyer, C. B., Santopetro, N. J., & Hajcak, G. (2025, October). Temporal dynamics of effort-based reward processing and their relation to depressive symptoms in adolescence. Verbal presentation at the Annual Meeting of the *Society for Psychophysiological Research*, Montreal, QC.
3. \*Knudson, K., Meynadasy, M. A., Thompson, B., Hajcak, G., & **Brush, C. J.** (2025, October). Acute exercise and neurocognitive function in older adults with and without mild cognitive impairment. Verbal presentation at the Annual Meeting of the *Society for Psychophysiological Research*, Montreal, QC.
4. \*Taylor, J., **Brush, C. J.**, Ransdell, L., & Bacelar, M. F. B. (2025, October). Mental health in the aging population: An investigation of the interplay between depression symptoms, reward processing, and physical activity in older adults. Findings to presented at the Annual Meeting of the *Western Society for Kinesiology & Wellness*, Boise, ID.
5. Grant, B., Petticrew, S., Taylor, J., **Brush, C. J.**, & Bacelar, M. F. B. (2025, October). A brain-level investigation of the benefits of physical activity for older adults experiencing depression symptoms. Findings to presented at the Annual Meeting of the *Western Society for Kinesiology & Wellness*, Boise, ID.
6. \*Kobylanski, M., Anderson, R., Cruz, A. A. B., Brown, A. F., & **Brush, C. J.** (2025, April). Associations between body composition and cognitive function among female adolescents. Verbal presentation at the Annual Meeting of the *Northwest Regional Chapter of the American College of Sports Medicine*, Cheney, WA.
7. \*Anderson, R., Knudson, K., Kobylanski, M., Vella, C. A., Egan, C. A., & **Brush, C. J.** (2025, April). Affective responses to self-selected and moderate-intensity aerobic exercise in adults with depressive symptoms. Poster presentation at the Annual Meeting of the *Northwest Regional Chapter of the American College of Sports Medicine*, Cheney, WA.
8. \*MacAlevy, G., Knudson, K., & **Brush, C. J.** (2025, April). Bidirectional relationships between physical activity and affect: Evidence from accelerometry and ecological momentary assessment. Poster presentation at the Annual Meeting of the *Northwest Regional Chapter of the American College of Sports Medicine*, Cheney, WA.

9. \*Knudson, K., Luvaas, E., & **Brush, C. J.** (2025, April). Exploring the cognitive benefits of physical activity in a natural environment. Poster presentation at the Annual Meeting of the *Northwest Regional Chapter of the American College of Sports Medicine*, Cheney, WA.
10. Klein, L. M., Merica, C. B., Knudson, K., **Brush, C. J.**, & Egan, C. A. (2025, April). Capacity building: University-school partnerships for active travel. Poster presentation at the Annual Meeting of *SHAPE America*, Baltimore, MD.
11. \*Taylor, J., **Brush, C. J.**, & Bacelar, M. F. B. (2024, November). EEG correlates of reward sensitivity and depressive symptoms in older adults: Can physical activity act as a protective mechanism? Verbal presentation at the Annual Meeting of the *Western Society for Physical Education of College Women*, Oakland, CA.
12. \*Knudson, K., & **Brush, C. J.** (2024, October). Internal consistency of the late positive potential elicited by the complex affective scene set. Poster presentation at the Annual Meeting of the *Society for Psychophysiological Research*, Prague, CZ.
13. \*Kallen, A. M., **Brush, C. J.**, & Patrick, C. J. (2024, October). Trial-level associations between substance use severity and monetary gain-versus-loss ERPs. Poster presentation at the Annual Meeting of the *Society for Psychophysiological Research*, Prague, CZ.
14. \***Brush, C. J.**, Burani, K., & Hajcak, G. (2024, October). Exploring the role of physical activity in the association between stress and anhedonia in adolescents. Poster presentation at the Annual Meeting of the *Society for Psychophysiological Research*, Prague, CZ.
15. \*Dluzniewski, A., Casanova, M., Baker, R., Ullrich-French, S., & **Brush, C. J.** (2024, October). Exploring the influence of gratitude on musculoskeletal injury recovery: A latent growth modeling analysis. Poster presentation at the Annual Meeting of the *Association for Applied Sport Psychology*, Las Vegas, NV.
16. \*Brunker, S., & **Brush, C. J.** (2024, March). Associations between affective variability, physical activity, and sedentary time in adults with depressive symptoms using ecological momentary assessment and actigraphy. Poster presentation at the Annual Meeting of the *Society for Affective Science*, New Orleans, LA.
17. Kobylanski, M., Keith, L. R., Hajcak, G., & \***Brush, C. J.** (2024, March). The role of emotional experience in the physical activity and depressive symptom relationship in adolescents. Poster presentation at the Annual Meeting of the *Society for Affective Science*, New Orleans, LA.
18. \*Egan, C., Orendorff, K., Merica, C., & **Brush, C. J.** (2024, March). Movement, my favorite thing to do at school. Verbal presentation at the Annual Meeting of *SHAPE America*, Cleveland, OH.
19. \***Brush, C. J.** (2024, February). Examining the interplay between physical activity, neural response to reward, and depression. Verbal presentation at the Annual Meeting of the *Northwest Regional Chapter of the American College of Sports Medicine*, Moscow, ID.
20. \*Irwin, G., Cruz, A. A. B., **Brush, C. J.**, Greene, A., Brooks, S. J., Trimberger, S., & Brown, A. F. (2024, February). Inconsistencies in normal weight obesity classification from multiple



- body composition techniques. Poster presentation at the Annual Meeting of the *Northwest Regional Chapter of the American College of Sports Medicine*, Moscow, ID.
21. \*Burani, K., Klawohn, J., **Brush, C. J.**, Threadgill, H., & Hajcak, G. (2023, September). Error-related (ERN) and reward-related (RewP) event-related potentials: Comparison between a dry electrode and gel-based system. Poster presentation at the Annual Meeting of the *Society for Psychophysiological Research*, New Orleans, LA.
  22. \***Brush, C. J.**, Keith, L. R., & Hajcak, G. (2023, June). Physical activity and associations with reward responsiveness and internalizing symptoms of depression and anxiety in adolescence. Verbal presentation at the Annual Meeting of the *North American Society for Psychology of Sport and Physical Activity*, Toronto, ON, CA.
  23. \***Brush, C. J.**, Santopetro, N., Kallen, A., Burani, K., Winkler, A., & Hajcak, G. (2022, October). Associations between physical activity, sedentary behavior, and the P300 during adolescence. Poster presentation at the Annual Meeting of the *Society for Psychophysiological Research*, Vancouver, BC, CA.
  24. \*Dell'Acqua, C., **Brush, C. J.**, Burani, K., Santopetro, N., Klawohn, J., Messerotti Benvenuti, S., & Hajcak, G. (2022). Reduced electrocortical responses to pleasant pictures in depression: A time-domain and time-frequency delta analyses. Poster presentation at the Annual Meeting of the *Society for Psychophysiological Research*, Vancouver, BC, CA.
  25. \*Dell'Acqua, C., Hajcak, G., **Brush, C. J.**, Santopetro, & Meyer, A. (2022, October). Error-related neural activity in children with obsessive-compulsive disorder: A time-frequency investigation. Poster presentation at the Annual Meeting of the *Society for Psychophysiological Research*, Vancouver, BC, CA.
  26. \*Thompson, B., Santopetro, N., **Brush, C. J.**, & Hajcak, G. (2022, October). Reduced neural response to cue and feedback stimuli in the MID task predicts adolescent depressive symptomology. Poster presentation at the Annual Meeting of the *Society for Psychophysiological Research*, Vancouver, BC, CA.
  27. \*Kallen, A., **Brush, C.**, Patrick, C., & Hajcak, G. (2022, October). The P300 during a go/no-go task in adolescent depression: Within-task change and average amplitude differentially relate to anhedonia and negative mood. Poster presentation at the Annual Meeting of the *Society for Psychophysiological Research*, Vancouver, BC, CA.
  28. \*Santopetro, N., **Brush, C.**, Nelson, B., Hajcak, G., & Klein, D. (2022, October). Reductions in childhood doors-locked P300 amplitude predicts increased risk for depressive disorders during adolescence. Poster presentation at the Annual Meeting of the *Society for Psychophysiological Research*, Vancouver, BC, CA.
  29. \*Keith, L., **Brush, C. J.**, Hajcak, G., Kiosses, D., & Sachs-Ericsson, N. (2022, October). Psychometric properties of reward-related event-related potentials in older adults. Poster presentation at the Annual Meeting of the *Society for Psychophysiological Research*, Vancouver, BC, CA.
  30. \*Bowyer, C., **Brush, C. J.**, Patrick, C., & Hajcak, G. (2022, October). Dissecting the temporal dynamics of motivational and consummatory reward processing deficits in

- depression. Poster presentation at the Annual Meeting of the *Society for Psychophysiological Research*, Vancouver, BC, CA.
31. \***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*.
  32. \*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*.
  33. \*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*.
  34. \*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*.
  35. \***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*.
  36. \*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*.
  37. \*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*.
  38. \*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*.
  39. \*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*.
  40. \***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.

41. \*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.
42. \***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.
43. \***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.
44. \***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.
45. \*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.
46. \*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.
47. \*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.
48. \*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.
49. \***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.
50. \***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.

51. \*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.
52. 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.
53. \***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.
54. \*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.
55. \*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.
56. \*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.
57. \***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.
58. \*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.
59. \*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.
60. \***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.
61. \*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.

62. \*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.
63. \***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.
64. \*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.
65. \***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.**
66. \*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.
67. \***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.
68. \***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.
69. \*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.
70. \*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.
71. \*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.
72. \*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.
73. \*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.
  74. \*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.
  75. 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.
  76. \***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.
  77. \*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.
  78. \***Brush, C. J.**, Olson, R. L., Townsend, M. A., Peruchio, 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 *37<sup>th</sup> Annual Scientific Meeting of the Mid-Atlantic Regional Chapter of the American College of Sports Medicine*, Harrisburg, PA.

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## RESEARCH SUPPORT

### Pending

2025-2029      **Department of Defense Research Project Grant Program (I80VP000641)**  
Development of machine learning models utilizing multimodal assessments from smart wearables for enhanced PTSD screening and precision diagnosis  
 Co-I (Co-PIs: Manish Bhomia, Steven P. Cohen, Colin Xu, Christina Lacroix, and Sameer R. Sonkusale); Estimated Total Costs: \$4,289,065

### Completed

2024-2025      **NIH Center of Biomedical Excellence (COBRE) in Nutrition and Women's Health (P20; GM152304)**  
Dietary creatine intake, cognitive function, and depression in adolescent girls  
 PI (Collaborators: Darren G. Candow and Ann F. Brown); Total costs: \$74,430

- 2024-2025 **Institute for the Study of Behavioral Health and Addiction at Boise State University**  
Examining the association between positive valence systems, physical activity, and depression in older adults  
 Co-PI (Other PI: Mariane Bacelar); Total costs: \$15,000
- 2023-2025 **University of Idaho Dean's Excellence Award Seed Funding**  
Examining associations between physical activity and positive valence systems in young adults with depressive symptoms  
 PI (Co-Is: Cate A. Egan, Hayley B. McKown, and Chantal A. Vella).  
Total costs: \$14,060
- 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  
 (Note: 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

#### Not Funded

- 2025-2027 **National Institute of Child Health and Human Development (R21; HD113773)**  
Mindfulness and aerobic exercise for improving emotion regulation and affect in adolescents  
 Co-I (PI: Shih-Chun Kao; Co-I: Sarah Ullrich-French); Total costs: \$275,000

#### MENTORED GRANTS

##### Awarded

- 2025-Present **Northwest Regional Chapter of the American College of Sports Medicine Student Research Grant**  
The effects of a digital physical activity intervention to promote physical activity in adults with depressive symptoms  
 Mentor (PI: Karly Knudson); Total costs: \$1,000

##### Completed

- 2020-2022 **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

#### OUTREACH SUPPORT

**Awarded**

2025-2027                    **Idaho Transportation Department-Transportation Alternatives Program**  
Safe Routes to School Program for Moscow, ID  
 Co-PI (PI: Cate A. Egan); Total costs: \$149,996

**AWARDS AND HONORS**

2019                    *American Kinesiology Association* Regional Doctoral Scholar Award  
 2016                    *Society for Psychophysiological Research (SPR)* 56<sup>th</sup> 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 Dean's List

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**TEACHING EXPERIENCE**

Auburn University (Instructor of Record)  
 KINE 4620: Exercise and Sport Psychology, Undergraduate, Fall 2025

University of Idaho (Instructor of Record)  
 ESHS 561: Motivation, Graduate, Spring 2025  
 ED 688: Writing for Publication, Graduate, Spring 2025  
 MVSC 618: Pedagogical Immersion, Graduate, Spring 2025  
 ESHS 502: Methodology and Data Processing, Graduate, Fall 2024  
 ESHS 598: Internship, Graduate, Fall 2024  
 MVSC 612: Research Immersion in the Movement Sciences, Graduate, Fall 2024  
 MVSC 570: Research in Physical Activity, Theory and Design, Graduate, Fall 2023, Fall 2024  
 ESHS 305: Sport and Exercise Psychology, Undergraduate, Spring/Summer/Fall 2023, Summer 2024,  
 Fall 2024, Summer 2025  
 ESHS 499: Exercise and Mental Health Research, Undergraduate, Fall 2023  
 ESHS 499: Psychophysiology Research, Undergraduate, Spring 2023  
 ESHS 455: Design & Analysis of Research in Movement Sciences, Undergraduate, Spring  
 2023/2024/2025  
 ESHS 560: Advanced Sport and Exercise Psychology, Graduate, Fall 2022, Spring 2024

Florida State University (Instructor of Record)  
 BSC 4900/4901: Directed Individual Study, Undergraduate, Summer/Fall 2021  
 PSY 4039: Honors Work, Undergraduate, Summer 2021  
 CLP 3314: Health Psychology, Undergraduate, Fall 2019/2020/2021

Rutgers University (Teaching Assistant)  
 01:146:357: Systems Physiology Lab, Undergraduate, Fall 2016-Spring 2019  
 01:119:115/116: General Biology I/II, Undergraduate, Fall 2015-Summer 2016  
 01:377:371: Exercise Physiology Lab, Undergraduate, Spring 2015  
 01:377:213: Functional Human Anatomy, Undergraduate, Fall 2012-Spring 2013



Rutgers University (Instructor of Record)

01:377:140: Foundations of Exercise Science & Sport Studies, Undergraduate, Fall 2014

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**MENTORSHIP**

Auburn University (as an Assistant Professor)

Major Professor: 1 graduate student, 2025-Present

University of Idaho (as an Assistant Professor)

Major Professor/Research Mentor: 5 graduate students, 2024-2025

Academic Advisor: 6 undergraduate students, 2023-2025

Mentor: 6 undergraduate students in the Psychophysiology of Active Lifestyles Laboratory, 2024-Present

Mentor: 10 undergraduate students in the Psychophysiology of Active Lifestyles Laboratory, 2023-2024

Mentor: 5 undergraduate students in the Psychophysiology of Active Lifestyles Laboratory, 2022-2023

Florida State University (as a Postdoctoral Scholar)

Honors Project Mentor: 1 student in the Risk for Anxiety and Depression Laboratory, 2021-2022

Mentor: 6 undergraduate/graduate students in the Risk for Anxiety and Depression Laboratory, 2021-2022

Mentor: 14 undergraduate/graduate students in the Risk for Anxiety and Depression Laboratory, 2020-2021

Mentor: 7 undergraduate/graduate students in the Risk for Anxiety and Depression Laboratory, 2019-2020

Rutgers University (as a Graduate Researcher)

Mentor: 20 undergraduate students in the Exercise Psychophysiology Laboratory, 2018-2019

Mentor: 8 undergraduate students in the Exercise Psychophysiology Laboratory, 2017-2018

Mentor: 15 undergraduate students in the Exercise Psychophysiology Laboratory, 2016-2017

Mentor: 14 undergraduate students in the Exercise Psychophysiology Laboratory, 2015-2016

Mentor: 10 undergraduate students in the Exercise Psychophysiology Laboratory, 2014-2015

**Graduate Student Major Professor and Committee Assignments:**

Auburn University (as an Assistant Professor)

Major Professor: Karly Knudson, Ph.D. student, Kinesiology, Auburn University, 2025-Present

External Committee Member: Maxx Antush, Ph.D., Education (Exercise Science Emphasis), University of Idaho, 2024-Present

External Committee Member: Melissa Materia, Ph.D., Behavioral Science, University of North Texas, 2023-Present

University of Idaho (as an Assistant Professor)

Major Professor: Karly Knudson, Ph.D. student, Education (Exercise Science Emphasis), University of Idaho, 2024-2025

Major Professor: Maya Kobylanski, M.S. student, Kinesiology and Leisure Sciences, 2023-2025

Major Professor: Rheanna Anderson, M.S. student, Kinesiology and Leisure Sciences, 2024-2025

Research Mentor: Gabriel MacAlevy, M.D. student, WWAMI, 2023-2025

External Committee Member: Salim Onbasi, M.S., Exercise Psychology, Purdue University, 2024-2025

External Committee Member: Jet Taylor, M.S., Kinesiology, Boise State University, 2024-2025

Committee Member: Ariel Aguiar Bonfim Cruz, Ph.D., Education (Exercise Science Emphasis), University of Idaho 2024-2025

Committee Member: Gena Irwin, M.S., Movement and Leisure Sciences, University of Idaho, 2023-2024

Committee Member: Alexandra Dluzniewski, Ph.D., Education (Exercise Science Emphasis), University of Idaho, 2022-2023

## INVITED TALKS AND GUEST LECTURES

### Invited Talks (n=9)

1. **Brush, C. J.** (2025, March). The effects of exercise on positive emotions and implications for depression. Talk presented as part of the Human Performance and Movement Seminar Series in the Department of Kinesiology, Health Promotion and Recreation, University of North Texas, Denton, TX.
2. **Brush, C. J.** (November, 2024). Habitual creatine intake, cognitive function, and depression in adolescent girls. University of Idaho COBRE Nutrition & Women's Health Retreat, Sandpoint, ID.
3. **Brush, C. J.** (September, 2024). Dietary intake, cognitive function, and depression in adolescent girls. Idaho IDeA Network of Biomedical Research Excellence Roundtable Series, Lewiston, ID.
4. **Brush, C. J.** (2024, May). Positive emotions: A nexus between depression and exercise? Talk presented to the School of Kinesiology, Auburn University, Auburn, AL.
5. **Brush, C. J.** (2024, January). Exercise as an antidepressant: Understanding how, why, and for whom. Seminar presented to the Department of Kinesiology, Washington State University, Pullman, WA.
6. **Brush, C. J.** (2023, March). Physical activity as an antidepressant: Understanding how, why, and for whom? Seminar presented to the College of Education, Health and Human Sciences, University of Idaho, Moscow, ID.
7. **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.
8. **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.
9. **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 (n=15)

1. **Brush, C. J.** (2023). Overview of conducting psychophysiological research in an exercise psychology laboratory. Lecture presented to PEP 495 Practicum in Exercise Science & Health. Department of Movement Sciences, University of Idaho, Moscow, ID.

2. **Brush, C. J.** (2023). Brief overview of learning how to conduct exercise and mental health research. Lecture presented to PEP 498 Internship in Exercise Science & Health. Department of Movement Sciences, University of Idaho, Moscow, ID.
3. **Brush, C. J.** (2021). Psychophysiological mechanisms of anxiety and depression. Lecture presented to PSY 3213C Research Methods. Department of Psychology, Florida State University, Tallahassee, FL.
4. **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.
5. **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.
6. **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.
7. **Brush, C. J.** (2017). Exercise as a treatment for depression. Exercise Science 455: Exercise Psychology, Department of Kinesiology & Health, Rutgers University, New Brunswick, NJ.
8. **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.
9. **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.
10. **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.
11. **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.
12. **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.
13. **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.
14. **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.

15. **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

### Major Committee Assignments:

#### International

2025 Annual Meeting Program Committee, Society for Psychophysiological Research, 2024-Present  
Education and Training Committee, Society for Psychophysiological Research, 2021-Present

#### University

Unit Tenure Committee, College of Agricultural and Life Sciences, University of Idaho, 2024

#### College

Undergraduate Research Certificate Committee, College of Education, Health and Human Sciences, University of Idaho, 2024-Present  
Equity Research Events Committee, Center for Translational and Behavioral Science, Florida State University, 2019  
Faculty Mentor, First-Year Interest Group Seminars: Sport & Exercise Psychology, Fall/Spring 2015, Fall/Spring 2016, Fall 2017

#### Departmental

Tenure-Track Faculty Search Committee, Movement Sciences, University of Idaho, 2024  
Tenure & Promotion Committee Member, Movement Sciences, University of Idaho, 2023  
Student Scholarship Ad Hoc Committee, Movement Sciences, University of Idaho, 2023-Present  
PhD in Kinesiology Ad Hoc Committee, Movement Sciences, University of Idaho, 2022-Present  
MVSC 201 Curriculum Committee, Movement Sciences, University of Idaho, 2022-Present  
M.S. Curriculum Committee, Movement Sciences, University of Idaho, 2022-Present  
Departmental Chair Faculty Search Committee, Kinesiology and Health, Rutgers University, 2017  
Tenure-Track Faculty Search Committee, Kinesiology and Health, Rutgers University, 2016

### Outreach Service:

Co-Director, Safe Routes to School Program, Moscow, ID, 2024-2025

### *Ad hoc Peer Reviewer*

*Aging Ment Health*

*Behav Res Methods*

*Biol Psychiatry Cogn Neurosci Neuroimaging*

*BMJ Open*

*Brain Behav*

*Cereb Cortex*

*Cogn Affect Behav Neurosci*

*Cogn Dev*

*Cogn Process*

*Cortex*

*Dev Psychopathol*

*Front Psychol*

*Front Psychiatry*

*Int J Psychophysiol*

*Int J Sport Exerc Psychol*

*Int Rev Sport Exerc Psychol*

*J Affect Disord*

*J Psychopath Clin Sci*

*J Sport Exerc Psychol*

*Ment Health Phys Act*

*Nurs Open*

*PeerJ*

*PLoS One*

*Psychol Med*

*Psychol Rep*

*Psychol Sport Exerc*

*Psychophysiology*

*Res Q Exercise Sport*

*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, 2017*

***Ad hoc Grant Reviewer***

*The Huo Family Foundation (UK), Junior Faculty Research Grant, 2025*

*The Wellcome Trust (UK) Mental Health Award, 2023, 2025*

*National Science Centre of Poland, 2021*

***Ad hoc Recommender (similar to Associate Editor)***

*PCI in Health & Movement Sciences, 2022-Present*

**Professional Memberships**

*Current*

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

Association for Psychological Science (APS), 2024-Present

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

Northwest Regional Chapter of American College of Sports Medicine (NW-ACSM), 2024-Present

Society for Digital Mental Health, 2023-Present

Society for Psychophysiological Research (SPR), 2014-Present

Society for Transparency, Openness, and Replication in Kinesiology, 2021-Present

*Past*

Society of Behavioral Medicine (SBM), 2018-2020

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

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

Society for Affective Science (SAS), 2023-2024

**Professional Development**

Auburn University Hanover Grant Academy, Auburn University's Proposal Services and Faculty Support, 2025-Present

University of Idaho & Lewis-Clark State College INBRE Professional Development Roundtables, 2022-2025

University of Idaho Operation NIH Funding Success Training Program, 2022-2023

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 39<sup>th</sup> Annual Meeting, 2018

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

Structural Equation Modeling and Multilevel Modeling 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, 2022, 2025

Rutgers University Brain Imaging Center 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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*Updated: August 12, 2025*