Shannon K. Crowley, PhD

School of Math & Sciences
Department of Public Health
Department of Exercise Science
North Carolina Wesleyan University
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Education

National Institute of Mental Health T-32 Postdoctoral Research Fellow (NIH-T32 MH093315):

Stress and Health Research Program, Center for Women's Reproductive Mood Disorders, Department of Psychiatry, School of Medicine, University of North Carolina at Chapel Hill,

Doctor of Philosophy (PhD): Exercise Science; emphasis in Health Aspects of Physical Activity 08/2013 Department of Exercise Science, Norman J. Arnold School of Public Health, University of South Carolina, Columbia, SC,

Committee: Shawn D. Youngstedt, PhD (primary); J. Larry Durstine, PhD; Michael W. Beets, MEd, MPH, PhD; Roger D. Newman-Norlund, PhD; Xuemei Sui, MD, PhD; Nikki R.Wooten, PhD, LCSW-C, LISW-CP

Certificate of Graduate Study: Psychiatric Rehabilitation; 05/2012 Department of Neuropsychiatry and Behavioral Science, School of Medicine, University of South Carolina, Columbia, SC

Bachelor of Arts (BA): Science; Minor: Biology; 05/2000, *Magna Cum Laude* University of Northern Iowa, Cedar Falls, IA

Teaching Experience

Associate Professor of Public Health; MPH Program Director

North Carolina Wesleyan University 08/2023-present

Associate Professor of Exercise Science

North Carolina Wesleyan University 08/2015-08/2023

Office of Undergraduate Research Director

North Carolina Wesleyan University 08/2021-05/2024

Courses taught:

EXS 100: Fitness and Wellness

EXS 190: Introduction to Exercise Science

EXS 214: Foundations In Wellness and Personal Training

EXS 301: Personal and Community Health (OL)

EXS 305: Health Promotion and Behavior Change (WI)

EXS 315: Nutrition and Human Performance

EXS 324: Exercise Physiology

EXS 345: Research and Statistics in Exercise Science (WI)

EXS 380: Junior Seminar in Exercise Science

EXS 450: Clinical Exercise Physiology I (WI)

EXS 460: Clinical Exercise Physiology II (WI)

EXS 481: Internship in Exercise Science

HLP 190: Health and Society

HLP 310: Introduction to Public Health (OL)

HLP 311: Exercise Psychology

HLP 304: Epidemiology for Healthcare Providers (OL)

HLP 320: Principles of Epidemiology (OL)

EXS 491: Research Topics in Exercise Science

EXS 495: Special Topics in Exercise Science

LIB 499: Liberal Studies Capstone, emphasis in nutrition

PBH 510: Quantitative and Qualitative Methods in Public Health

PBH 515: Physical Activity and Behavior

PBH 600: Physical Activity and Public Health

PBH 620: Public Health Practicum

Invited Guest Lecturer, USC Arnold School of Public Health, Doctoral Seminar (EPID 845): 10/27/2014

Department of Epidemiology, University of South Carolina, Columbia, SC

Lecture Title: "Trust Me, I'm a Doctor...of Philosophy: Multidisciplinary Avenues for Individuals with a Doctorate from the School of Public Health."

Graduate Teaching Assistant: 1/2012-05/2012

Department of Exercise Science, University of South Carolina, Columbia, SC Course: EXSC710: Behavioral Aspects of Physical Activity (graduate course)

Guest Lecturer, USC Department of Exercise Science Seminar Series: 04/2011

Department of Exercise Science, Arnold School of Public Health, University of South Carolina, Columbia, SC Seminar Title: "Bright Light Therapy in the Treatment of Post-Traumatic Stress Disorder"

Guest Lecturer, Carolina Masters Scholars Program: 07/2010

Department of Exercise Science, University of South Carolina, Columbia, SC Course title: "Exercise and the Brain."

Undergraduate Teaching Assistant: 01/2000-05/2000

University of Northern Iowa, Cedar falls, IA

Assisted with lab instruction of BIOL4146: Developmental Biology of the Vertebrates

Research Experience

$National\ Institute\ of\ Mental\ Health\ T-32\ Postdoctoral\ Research\ Fellow\ (NIH-T32\ MH093315):$

2013-2015

Center for Women's Reproductive Mood Disorders, Department of Psychiatry, School of Medicine, University of North Carolina at Chapel Hill,

Graduate Research Assistant:

8/2009-06/2013

Chronobiology Lab, Department of Exercise Science, Arnold School of Public Health, University of South Carolina, and the Williams Jennings Bryan Dorn Veteran's Administration, Columbia, SC

Research Assistant:

07/2003-07/2009

Neural Transplantation and Repair Laboratory, Department of Pediatrics, Program in Neuroscience, University of Colorado-Denver, Denver, CO

Research Assistant:

05/2000-07/2002

Department of Biology, University of Northern Iowa, Cedar Falls, IA

Undergraduate Research Assistant:

05/1999-08/1999

Department of Biology, University of Northern Iowa, Cedar Falls, IA

Other Related Work Experience

Master Group Fitness Instructor: 01/2010-01/2013

University of South Carolina, Columbia, SC

Designed and taught Group Fitness Classes for the University of South Carolina Campus Health and Wellness Program

Group Fitness Instructor: 07/2002-01/2009

24 Hour Fitness, Denver, CO

Designed and taught Group Fitness Classes for 24 Hour Fitness. I earned the prestigious "Instructor of the Year" Award in 2005.

Group Fitness Instructor: 08/1997-05/2002 University of Northern Iowa, Cedar Falls, IA

Designed and taught Group Fitness Classes for the University of Northern Iowa Campus Wellness.

Grants

Active

North Carolina Wesleyan College Leslie H. 1/2024 No salary support—all funding and Evelyn G. Garner Faculty Leadership Award \$5,500.00 went toward project (Crowley)

Funding from this award will be funding equipment and supplies for the conduction of a research study comparing the affective and cortisol response to a traditional (treadmill) exercise bout and a virtual reality (VR) exergaming bout. Virtual reality headsets will also be used to grow the VR library for use by faculty for innovative teaching methods.

The Jefferson-Pilot Professorship Award 5/2023 (Crowley) \$7,000.00

This is the highest and most singular honor that North Carolina Wesleyan University (NCWU) bestows upon a member of its faculty, in recognition of extraordinary teaching, scholarship, and contributions to NCWU.

Completed

Fritz" James Morrison Smith, Jr. Faculty Development Award 5/2023 (Crowley) \$200.00

This funding supported completion of the Physical Activity and Public Health Specialist Certificate, administered by the American College of Sports Medicine (ACSM), in partnership with the Physical Activity Alliance (PAA) and the Centers for Disease Control and Prevention (CDC).

Frank Smith Wilkinson Lectureship Award 4/2020 (Crowley) \$3,440.00

This funding supported attendance to the University of California-Irvine Salivary Bioscience advanced statistical workshop

"Fritz" James Morrison Smith, Jr. Faculty Development Award 4/2019 (Crowley) \$650.00

This funding supported virtual attendance to the University of California-Irvine Salivary Bioscience workshop

North Carolina Wesleyan College Leslie H. 1/2019 No salary support—all funding

and Evelyn G. Garner Faculty Leadership Award \$9,660.59 went toward project

(Crowley)

This project funded additional equipment and supplies to enhance the capability of the Laboratory of Applied Physiology to conduct advanced techniques in salivary bioscience research.

Bob and Pat Mauldin Professional Development Award 10/2018 (**Crowley**) \$500

This award helped to fund travel to the University of California-Irvine Institute for Salivary Bioscience "Spit Camp" Workshop

Wells Fargo TLC Faculty/Student Research Award 3/2017 (**Crowley;** Magal; Henderson) \$4,000

FITness, Women's Inflammation, Stress, and Sleep (FITwise)

This stipend funded hormone assays needed for conduction of the FITwise study.

North Carolina Independent Colleges and 6/2016 Universities Undergraduate Research Program Stipend \$350

(Crowley; A. Leonard)

FITness, Women's Inflammation, Stress, and Sleep (FITwise)

This stipend funded additional supplies for the Laboratory of Applied Physiology, for conduction of the FITwise study.

North Carolina Wesleyan College Leslie H. 4/2016 No salary support—all funding

and Evelyn G. Garner Faculty Leadership Award \$7,500 went toward project

(Crowley)

FITness, Women's Inflammation, Stress, and Sleep (FITwise)

This project funded additional equipment and supplies for the Laboratory of Applied Physiology, facilitated additional undergraduate research projects, and enhanced college-community partnerships through strengthening student internships.

<u>Foundation of Hope for Research & 7/1/2014-6/30/2017 No salary support—all Treatment of Mental Illness</u> \$39,605 funding went toward project

(Crowley; Girdler)

Sleep Dysregulation and Neuroendocrine Stress Reactivity: Towards a Biopsychosocial Model of Vulnerability to Postpartum Depression.

Co-Investigators: A. Leslie Morrow, PhD; Alison Stuebe, MD; Robert M. Hamer, PhD.

Description: This project tested the feasibility of enrolling second trimester pregnant women into a laboratory-based stress-testing protocol, and establishing proof of concept for measuring and analyzing physiological, psychosocial, and behavioral measures of affective regulation. In particular, this award allowed for the addition of training and measurement of gamma-aminobutyric acid (GABA)-ergic neurosteroids via Gas Chromatography-Mass Spectrometry (GC-MS).

North Carolina Translational and Clinical 4/01/2014 – 3/31/2015 No salary support—all sciences Institute (NC TraCS) 2KR501305 (Crowley)

Biopsychosocial Vulnerability to Postpartum Depression: investigating the moderating role of depression history on stress reactivity, sleep, and affective symptomology during pregnancy.

Co-Investigators: Susan S. Girdler, PhD; A. Leslie Morrow, PhD; Alison Stuebe, MD; Robert M. Hamer, PhD

Description: This project was designed to lay the groundwork for testing the feasibility of enrolling second trimester pregnant women into a laboratory-based stress-testing protocol, and establishing proof of concept for measuring and analyzing physiological, psychosocial, and behavioral measures of postpartum depression symptomatology.

McCausland Center for Brain Imaging 12/1/2009-6/1/2012 No salary support—all (Crowley; Youngstedt) \$6.000 funding went toward project

The Effect of Bright Light Therapy on Neural Response to Newborn Crying in Women with Postpartum Depression.

Co-Investigators: Roger D. Newman-Norlund, PhD.

Description: This project was designed to acquire pilot data for a randomized controlled trial of the efficacy of bright light therapy for women with and without postpartum depressive symptomatology. In order to evaluate the effects of bright light therapy on postpartum affective regulation, psychological (questionnaires/self-report), physiological (fMRI, using a baby cry stimulus paradigm), and behavioral (sleep-wake behavior via retrospective self-report) correlates of maternal affective regulation were assessed pre and post intervention. Secondary data included the measurement of rest-activity rhythms and sleep-wake behavior, which were assessed during the intervention phase via continuous wrist actigraphy.

Peer-Reviewed Publications

Please note that my last name changed from Cornelius to Crowley in 2011. As such, older publications will have the name 'Cornelius;' *indicates corresponding author

- Magal M, Valladarez Cuestas R, Crowley SK, Batchelor VB, Hoffman JR. Seasonal changes in physical performance–related variables in women NCAA Division III soccer players. *Gazzetta Medica Italiana*. 2023. 182. DOI: 10.23736/S0393-3660.23.05077-5
- 2. Youngstedt SD, Ginsberg JP, Kline CE, **Crowley SK**, Reynolds AM, Burch JB, Han SY. Bright light treatment of combat-related PTSD: A randomized controlled trial. *Military Medicine*. 2021. Epub ahead of print.
- 3. Magal M, Liette NC, **Crowley SK**, Hoffman JR, Thomas KS. Sex-Based Performance Responses to an Acute Sprint Interval Cycling Training Session in Collegiate Athletes [published online ahead of print, 2020 Jun 26]. *Res Q Exerc Sport*. 2020;1-8. doi:10.1080/02701367.2020.1751026
- 4. **Crowley SK**,* Rebellon J, Huber C, Leonard AJ, Henderson D, Magal M. Cardiorespiratory fitness, sleep, and physiological responses to stress in women. *Eur J Sport Sci*. 2020 Jan 25:1-10. doi: 10.1080/17461391.2020.1716855.
- 5. **Crowley SK**, O'Buckley TK, Schiller CE, Stuebe A, Morrow AL, and Girdler SS. Blunted neuroactive steroid and HPA axis responses to stress are associated with reduced sleep quality and negative affect in pregnancy: a pilot study. *Psychopharmacology*. 2016; 233(7):1299-310.
- 6. **Crowley SK**, Pedersen CA, Leserman J, Girdler SS. The Influence of Early Life Sexual Abuse on Oxytocin Concentrations and Premenstrual Symptomatology in Women with a Menstrually Related Mood Disorder. *Biological Psychology*. 2015; 109: 1-9.
- 7. Brandon AR, **Crowley SK**, Gordon JL, Girdler SS. Non-Pharmacologic Treatments for Depression Related to Reproductive Events. *Current Psychiatry Reports*. 2014; 16 (12): 526.
- 8. **Crowley SK,*** Wilkinson LL, Wigfall LT, Wooten NR, Reynolds AM, Muraca ST, Glover SH, Wooten NR, Sui X, Beets MW, Durstine JL, Newman-Norlund RD, Youngstedt SD. Physical Fitness and

- Depressive Symptoms during Army Basic Combat Training. *Medicine & Science in Sports & Exercise*. 2015; 47(1):151-8.
- 9. **Crowley SK,** Girdler SS. Neurosteroid, GABAergic and Hypothalamic Pituitary Adrenal (HPA) Axis Regulation: What is the Current State of Knowledge in Humans? *Psychopharmacology*. 2014; 231:3619-34. **Invited Review.**
- 10. **Crowley SK**, Wilkinson LL, Burroughs EL, Muraca ST, Wigfall LT, Louis-Nance T, Williams EM, Glover S, Youngstedt SD. Sleep During Basic Combat Training: A Qualitative Study. *Military Medicine*, 2012; 177(7) 823-828.
- 11. **Crowley SK,*** Youngstedt SD. Efficacy of Light Therapy for Perinatal Depression: A Review. *Journal of Physiological Anthropology*, 2012; 31(1):15. **Invited Review.**
- 12. **Crowley SK**, Wilkinson LL, Muraca S, Wigfall L, Loius-Nance T, Reynolds A, Williams EM, Glover S, Youngstedt SD. Mental Health and Sleep During Basic Combat Training and Beyond. *Sleep Science*, 2012; 5(1):24-27.
- 13. Rachubinski AL, **Crowley SK**, Sladek JR Jr, Maclean KN, Bjugstad KB. Effects of Neonatal Neural Progenitor Cell Implantation on Adult Neuroanatomy and Cognition in the Ts65Dn Model of Down Syndrome. *PLoS One*, 2012; 7(4):e36082.
- Goodrich KM, Crowley SK, Lee DC, Sui XS, Hooker SP, Blair SN. Associations of cardiorespiratory fitness and parental history of diabetes with risk of type 2 diabetes. *Diabetes Research and Clinical Practice*, 2012; 95(3):425-31.
- 15. Bjugstad KB, Teng YD, Redmond DE Jr, Elsworth JD, Roth RH, **Cornelius SK**, Snyder EY, Sladek JR Jr. Human neural stem cells migrate along the nigrostriatal pathway in a primate model of Parkinson's disease. *Experimental Neurology*, 2008 Jun; 211(2):362-9.
- 16. Fuller LC, Cornelius SK, Murphy CW, Wiens DJ. Neural crest cell motility in valproic acid. *Reproductive Toxicology*, 2002 Nov-Dec; 16(6):825-39.

Publications Under Review or in Progress

17. **Crowley SK**, Non-pharmacological methods for promoting sleep health. **Invited Review** for *Sleep Medicine X* (in progress).

Book Chapters

- 1. **Crowley, SK**. "Exercise, Depression-Anxiety Disorders and Sex Hormones" in Sex Hormones, Exercise and Women: Scientific and Clinical Aspects, 2nd Edition. (Anthony C. Hackney, PhD, Ed.) Springer Science and Business Media, LLC. New York, NY (in review).
- 2. **Crowley SK**. "Pathophysiology, Associations, and Consequences of Circadian Rhythm Sleep Wake Disorders." In *The Encyclopedia of Sleep*, 2nd edition. 2021
- 3. **Crowley, SK.** "Exercise, Depression-Anxiety Disorders and Sex Hormones" in *Sex Hormones, Exercise and Women: Scientific and Clinical Aspects*, (Anthony C. Hackney, PhD, Ed.) Springer Science and Business Media, LLC. New York, NY 2017.
- **4. Crowley SK,** Youngstedt SD. Pathophysiology, Associations, and Consequences of Circadian Rhythm Sleep Disorders. In Kushida C (ed), *The Encyclopedia of Sleep*. London: Elsevier 2013.

Dissertation

Crowley SK. (2013) The Association of Physical Fitness with Psychological Health Outcomes in Soldiers During Army Basic Combat Training. University of South Carolina, Columbia, SC. Committee members: Shawn D.Youngstedt, PhD (primary); J. Larry Durstine, PhD; Michael W. Beets, MEd, MPH, PhD; Roger D. Newman-Norlund, PhD; Xuemei Sui, MD, PhD; Nikki R.Wooten, PhD, LCSW-C, LISW-CP. http://scholarcommons.sc.edu/etd/2338/.

Invited Talks

- 1. **Crowley, SK**. "Exercise is medicine: A hard pill to swallow?" 1st Annual Health and Fitness Summit, Wake Technical Community College. Raleigh, NC. 10/2011. **Invited Speaker**
- 2. **Crowley SK**. "Neuroactive steroid and HPA axis responses to stress and their associations with sleepwake behavior, mood, and emotional responses to stress during pregnancy." Annual Neurosteroid Congress at Duke University, Durham, NC: 4/2016. **Invited Speaker**
- **3.** Crowley SK. "Investigating Stress-Related Sleep Disturbances as a Biomarker of Risk for Postpartum Mood & Anxiety Disorders." 2014 Postdoctoral Awards for Research Excellence Ceremony. Chapel Hill, NC. Invited Speaker and Awardee
- **4. Crowley, SK**. "Trust Me, I'm a Doctor...of Philosophy: Multidisciplinary Avenues for Individuals with a Doctorate from the School of Public Health." Department of Epidemiology, USC Arnold School of Public Health, Doctoral Seminar (EPID 845), University of South Carolina, Columbia, SC. 10/2014. **Invited Guest Lecturer**
- **5. Crowley SK**. "Sleep Dysregulation and Neuroendocrine Stress Reactivity: Towards a Biopsychosocial Model of Vulnerability to Postpartum Depression." 2014 Inaugural Neurosteroid Congress, Duke University, Durham, NC. **Invited Speaker**
- 6. **Crowley, SK**. "Bright Light Therapy in the Treatment of PTSD." Department of Exercise Science, USC Arnold School of Public Health, Department of Exercise Science Seminar Series. Columbia, SC. 4/2011. **Invited Speaker**

Talks/Seminars:

- 1. **Crowley, SK**. Your Snooze, you Lose?: The role of Sleep in Health and Wellness. Talk given for the 2022-2023 NCWU Lunch n' Learn Series for Health, Rocky Mount, NC. 4/2023
- Crowley, SK. Exercise for Stress Relief. Talk given for the 2019-2020 NCWU Lunch n' Learn Series for Health, Rocky Mount, NC. 11/2019
- 3. **Crowley SK**. Cardiovascular Fitness, Sleep, & Physiological Responses to Psychosocial Stress in Women: Findings from the NCWU FITwise Study. Talk given at the NCWU Fourth Monday Colloquia, Rocky Mount, NC. 10/2018
- 4. **Crowley SK**. Active Body, Sound Mind: The Role of Exercise in the Prevention and Treatment of Stress-Related Psychiatric Disease. Talk given at the North Carolina Wesleyan College Fourth Monday Colloquia, Rocky Mount, NC. 11/2015
- 5. **Crowley SK**. Women's Mood Disorders across the Lifespan. Talk given at the North Carolina Wesleyan College Women's Health Month Seminar, Rocky Mount, NC. 10/2015

Selected Conference Abstracts/ Presentations

1. **Crowley SK**, Vansteene T, Cyusa R, Donovan TL, Magal M. Sedentary Behavior, Sleep, and Depressive Symptoms after Sport-Related Concussion. *The American College of Sports Medicine Annual Meeting. Denver, CO* 2023.

- 2. Vansteene T, Cyusa R, Donovan TL, Magal M, **Crowley SK**. The effect of Physical Activity after Concussion on Concussion-related Sleep problems. *The Southeast American College of Sports Medicine Annual Meeting*, 2023. *Greenville*, SC. 3/2023.
- 3. Amitay M, Spinache S, Hutchinson KR, Neall IM, Batchelor VB, **Crowley SK**, Hoffman JR, Magal M. A Pilot Study Comparing the Traditional Bar Grip and the Pelvic Belt Methods to Measure Mid-Thigh Isometric Pull Performance in Collegiate Male Athletes. *The Southeast American College of Sports Medicine Annual Meeting*, 2023. *Greenville*, SC. 3/2023.
- 4. Neall IM, Hutchinson KR, Amitay M, Batchelor VB, **Crowley SK**, Hoffman JR, Magal M. High and Low Performer Differences in Countermovement Jump Derived Neuromuscular Performance in Female NCAA Division III Soccer Players. *The Southeast American College of Sports Medicine Annual Meeting*, 2023. *Greenville*, SC. 3/2023.
- 5. Hutchinson KR, Neall IM, Amitay M, Batchelor VB, **Crowley SK**, Hoffman JR, Magal M. Pre-Season Countermovement Jump Derived Neuromuscular Performance in Female NCAA Division III Soccer Players. *The Southeast American College of Sports Medicine Annual Meeting*, 2023. *Greenville*, SC. 3/2023.
- 6. Magal M, Valladarez Cuestas RA, **Crowley SK**, Ehlert A, Hoffman JR. Playing Season Improves Onfield Metrics in Female NCAA Division III Footballers. *The American College of Sports Medicine Annual Meeting. San Diego, CA 2022.*
- 7. Mackey M, Chenault S, Bly K, Magal M, and **Crowley SK**. Sleep and Depressive Symptoms after Sport-related Concussion. *The Southeast American College of Sports Medicine Annual Meeting*, 2022. *Greenville*, SC. 3/2022. **Selected as a top 8 finalist for student travel award consideration**.
- 8. Valladarez RA, Wall JD, Avery AG, Wolf DL, Thomas KS, Alicea-Kulian KR, Crowley SK, Magal M. Playing Season Improves Off -field Performance in Female NCAA Division III Footballers. *The American College of Sports Medicine Annual Meeting*, 2021 (virtually held due to COVID-19 restrictions). 6/2021
- 9. **Crowley SK**, Gill M, Braxton DF, Magal M. Barriers to Physical Activity during the Covid-19 Pandemic. *The American College of Sports Medicine Annual Meeting (virtually held due to COVID-19 restrictions)*. 6/2021
- 10. Gill M. Braxton DF, **Crowley SK**. Physical Activity and Depressive Symptoms during the Covid-19 Stay at Home Order in North Carolina. *The Southeast American College of Sports Medicine Annual Meeting*, 2021. (Virtually held due to COVID-19 restrictions). 2/2021. **Won 2nd place in the student award competition**
- 11. **Crowley SK**, Wall JD, Avery AG, Braxton DF, Henderson D, Magal, M. Sitting Time Predicts Cortisol Levels in Women, Independent of Cardiorespiratory Fitness Level. *The American College of Sports Medicine Annual Meeting (virtually held due to COVID-19 restrictions)*. 6/2020.
- 12. Alicea-Kulian KR, Thomas KS, Wolf DL, Valladarez Cuestas RA, Wall JD, Avery AG, Batchelor VB, Crowley SK, Magal M. Does Lower Extremity FMS Performance Predict Vertical Jump Height in Female NCAA Division III Footballers? *The American College of Sports Medicine Annual Meeting (virtually held due to COVID-19 restrictions, 6/2020.*

- 13. Avery AG, Wall JD, Magal, M, Henderson D, Braxton DF, Crowley SK. Influence of Walking and Sitting Time on Physiological and Behavioral Measures of Stress in Women. The Southeast American College of Sports Medicine Annual Meeting. Jacksonville, FL, 2020. *Selected as a top 8 finalist for student travel award consideration*.
- 14. Valladarez Cuestas RA, Wall JD, Avery AG, Batchelor VB, Wolf DL, Thomas KS, Alicea-Kulian KR, Crowley SK, Magal M. Pre-Season Performance Related Variables in Female NCAA Division III Soccer Players. The Southeast American College of Sports Medicine Annual Meeting. Jacksonville, FL, 2020.
- 15. **Crowley SK**, Rebellon R, Leonard AJ, Huber C, Wolfe L, Tobar A, Hayden S, Henderson D, Magal M. Relationships among BMI, Estradiol, and Sleep-Wake Behavior in Women. *The American College of Sports Medicine Annual Meeting*. Orlando, FL 2019
- 16. Marcellus M, Ricks CT, Magal M, **Crowley SK**. Factors Influencing Attitude Towards, and Participation in, Physical Activity in Eastern North Carolina. *The Southeast American College of Sports Medicine Annual Meeting*. Greenville, SC 2019
- 17. Crowley SK, Rebellon J, Leonard A, Huber C, Wolfe L, Tobar A, Hayden S, Henderson D, Magal M. Relationships among Physical Fitness, Sleep-Wake Behavior, and Hemodynamic and Cortisol responses to Stress in Women. *The American College of Sports Medicine Annual Meeting*. Minneapolis, MN 2018
- Rebellon J, Magal M, Henderson D, Huber C, Leonard A, Wolfe L, Tobar A, Hayden S, Crowley SK. Physical Fitness and Cognitive Performance in Women. *The American College of Sports Medicine Annual Meeting*. Minneapolis, MN 2018
- 19. Huber C, Magal M, Henderson D, Leonard A, Wolfe L, Tobar A, **Crowley SK**. Physical Fitness, Hemodynamic and Affective Responses to Psychosocial Stress in Women. *The American College of Sports Medicine Annual Meeting*. Denver, CO 2017
- 20. Leonard A, Magal M, Henderson D, Huber C, Wolfe L, Tobar A, **Crowley SK**. Physical Fitness, Physiological and Sleep Responses to Stress in Women. *The American College of Sports Medicine Annual Meeting*. Denver, CO 2017
- 21. Leonard A, Magal, M, Henderson D, Huber C, Wolfe L, Tobar A, and **Crowley SK**. Relationship between physical fitness and stress-related sleep disturbances. *State of North Carolina Undergraduate Research and Creativity Symposium*. Durham, NC 2016.
- 22. Liette N, Thomas KS, Crowley SK, Leonard AJ, Magal M. Sex-Based differences of Six Repeated Wingate Anaerobic Cycle Test Performances. *The American College of Sports Medicine Annual Meeting*. Boston, MA 2016.
- 23. Thomas KS, Liette N, **Crowley SK**, Leonard AJ, Magal M. Fatigue and Sex-based Effects on Postural Motion in NCAA Division III Soccer Athletes. *The American College of Sports Medicine Annual Meeting*. Boston, MA 2016.
- 24. **Crowley SK.** Exercise is medicine: The role of exercise in the prevention and treatment of mood and anxiety disorders in children and adults. *The International Society for Psychoneuroendocrinology Annual Meeting*. Edinburgh, Scotland, 2015.
- 25. Crowley SK, Morrow AL, Schiller CE, Stuebe AM, Nau SL, Girdler SS. Biopsychosocial Vulnerability to Postpartum Depression: a laboratory-based feasibility study of sleep dysregulation, daytime stress reactivity, and anxiety symptomatology during pregnancy. *International Society for Psychoneuroendocrinology (ISPNE) Annual Meeting*. Edinburgh, Scotland, 2015.

- 26. Crowley SK, Morrow AL, Nau SL, Schiller CE, Stuebe AM, Leserman J, Hamer RM, Girdler SS. Stress and Sleep Reactivity: Initial Stages of a Biopsychosocial Model of Vulnerability to Postpartum Depression. 2014 University of North Carolina at Chapel Hill Department of Psychiatry Research Day. Chapel Hill, NC.
- 27. **Crowley SK**, Pedersen CA, Leserman J, Girdler SS. A History of Early Sexual Abuse Moderates Oxytocin Concentrations and Pain Sensitivity in Women with a Reproductive Mood Disorder. 2014 International Society of Psychoneuroendocrinology (ISPNE) Conference: "Sex and Gender across the Lifespan." Montreal, Canada.
- 28. Youngstedt, SD, Ginsberg, JP, **Crowley SK**, Reynolds, AC, Kline, CE. Influence of Bright Light Treatment on Combat-Related PTSD. *Society for Light Treatment and Biological Rhythms 2013 Annual Conference*. Geneva, Switzerland.
- 29. **Crowley SK**, Reynolds AM, Ginsberg JP, Youngstedt SD. The Effect of Bright Light Therapy on Post Traumatic Stress Disorder. *University of South Carolina Graduate Student Day Annual Forum 2012*. University of South Carolina, Columbia, SC. 2nd place award winner, Health Sciences Category
- 30. **Crowley SK**, Newman-Norlund RD, Youngstedt SD. Effect of Bright Light Therapy on Mesocorticolimbic and Thalamocingulate Activity in Postpartum Depression: fMRI pilot study *Women's Health Research Forum*, 2011. University of South Carolina, Columbia, SC
- 31. **Crowley SK**, Youngstedt SD, Burroughs E, Wilkinson L, Muraca ST, Wigfall L, Louis-Nance T, Williams EM, Glover S. Self -Reported Eveningness Chronotype and Early Sleep/Wake Cycle During Basic Combat Training. *Society for Light Treatment and Biological Rhythms 2011 Annual Conference*. Montreal, Canada.
- 32. **Crowley SK**, Newman-Norlund RD, Youngstedt SD. Effect of Bright Light Therapy on Mesocorticolimbic and Thalamocingulate Activity in Postpartum Depression. *Society for Light Treatment and Biological Rhythms 2011 Annual Conference*. Montreal, Canada. **SLTBR Trainee Travel Award Winner**
- 33. Youngstedt SD, **Crowley SK**, Reynolds AC, Schumacher S, Kline CE, Davidson C. Bright Light Treatment for Anxiety. *Society for Light Treatment and Biological Rhythms 2011 Annual Conference*. Montreal, Canada
- 34. Kline CE, Porter MM, Rose ED, **Crowley SK**, Ewing GB, Blair SN, Durstine JL, Davis JM, Burch JB, Youngstedt SD. Changes in Daytime Functioning Following Exercise Training in Adults with Untreated Obstructive Sleep Apnea: A Randomized Controlled Trial. *APSS SLEEP 2011 Annual Conference*. Minneapolis, MN.
- 35. **Cornelius SK**, Kline CK, Ginsberg JP, Youngstedt SD. The Effect of Bright Light Therapy on Post Traumatic Stress Disorder- Related Sleep Disturbances. *APSS SLEEP 2011 Annual Conference*. Minneapolis, MN. **SRS Award Winner for Excellence in Scientific Abstracts**
- 36. **Cornelius SK**, Kline CK, Anderson J, Ginsberg JP, Youngstedt SD. The Effect of Bright Light Therapy on PTSD Related Sleep Disturbances. *APSS SLEEP 2010 Annual Conference*. San Antonio, TX. **Trainee Travel Award Winner**
- 37. Rachubinski A, **Cornelius SK**, & Bjugstad K. Adult Behavior after Neonatal mNPC Transplantation in the Ts65Dn Mouse Model. *Cell Transplantation 2010 Conference*.
- 38. Rachubinski A, **Cornelius SK**, Maclean, KN, Bjugstad K. Motor Skill Development After MNPC Transplantation in a Neonatal Mouse Model of Down Syndrome. *Cell Transplantation 2009 Conference*.
- 39. Rachubinski A, **Cornelius SK**, Maclean KN, Bjugstad KB. Effects of neural progenitor cells implanted into the hippocampus of Ts65Dn mice on postnatal development. *Society for Neuroscience*, 2008

- 40. Sladek JR, Bjugstad KB, Teng YB, **Cornelius SK**, Blanchard BC, Elsworth, Roth RH, Snyder EY, Redmond DE. Neural stem cells migrate to the site of damage in dopamine depleted primates. *Experimental Biology Annual Conference*, 2005
- 41. Lupien SB, Bjugstad KB, Blanchard BC, **Cornelius SK**, Redmond DE, Elsworth JD, Roth RH, Sladek JR. Loss of Dopamine Neurons Correlates to Behavioral Impairment in the MPTP-Primate Model of Parkinson's Disease. *American Society for Neural Transplantation and Repair*, 2005
- 42. Bjugstad KB, Blanchard BC, **Cornelius SK**, Sladek JR. GDNF-Enhanced collagen bridges increase neuritic outgrowth to striatum from VM transplants. Experimental Neurology 2005 Conference
- 43. Wiens D, Fuller L, **Cornelius SK**. Neural Crest Cell Motility in Valproic Acid. *Developmental Biology Annual Conference*, 2001

Media Coverage:

- Crowley, SK. How Exercise Can Be Used To Help Women Combat Anxiety. Women's Running Magazine. 5/25/2018. http://womensrunning.competitor.com/2018/05/health-wellness/exercise-combat-anxiety 93849
- Cornelius, SK. Bright Light Therapy Improves Sleep Disturbances in Soldiers with Combat PTSD. McCann, K. American Academy of Sleep Medicine. 5/21/2010. http://www.aasmnet.org/articles.aspx?id=1719
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Academic and Professional Awards/Honors

- NCWU Jefferson Pilot Professorship: 2023-2024
- NCWU Professional Development Committee (PDC) Course Release Award to develop NCWU Nutrition minor, 2021
- Lead the creation and direction of the Exercise is Medicine on Campus Mascot Challenge video which was selected for first place, nationally by the American College of Sports Medicine, 2020.
- Lead efforts for NCWU to obtain recognition as a Silver Level Exercise is Medicine on Campus, 2019, 2020, 2021
- NCWU Professional Development Committee (PDC) Course Release Award to develop Office of Undergraduate Research, 2019
- "Program of the Year" award by NCWU Student Activities for my Lunch n Learn Series for Health, 2020
- Exercise is Medicine Ambassador Recognition by the American College of Sports Medicine, 2019
- Outstanding Reviewer Award, Psychoneuroendocrinology, 2017
- North Carolina Independent Colleges and Universities Undergraduate Research Program Stipend, 2016
- University of North Carolina at Chapel Hill Postdoctoral Award for Research Excellence, Office of the Vice Chancellor for Research 2014
- American Psychosomatic Society Young Investigator Colloquium Scholar 2014

- USC Center for Teaching Excellence Preparing Future Faculty Award 2013
- USC Arnold School of Public Health "Arnold Scholar" Graduate Scholarship Award 2009/2010, 2010/2011, 2011/2012, and 2012/2013 academic years
- Phillips Society for Light Treatment and Biological Rhythms Student Travel Award 2011
- USC Graduate School Student Travel Award 2011
- Arnold School of Public Health Dean's Student Travel Award 2011
- Department of Exercise Science Student Travel Award 2011
- Sleep Research Society Travel Award for Scientific Abstract Excellence 2011
- USC Graduate Student Day, 2nd place award for health sciences category 2011
- Arnold School of Public Health Dean's Student Travel Award 2010
- USC Graduate School Student Travel Award 2010
- Department of Exercise Science Student Travel Award 2010
- Sleep Research Society Trainee Travel Award 2010
- McCausland Center for Brain Imaging M-fund research award 2010

Academic and Professional Service

- 1. NCWU Honors Program Student Senior Thesis Committee Chair, 2024-2025, student: Emily Foraker
- 2. North Carolina American Council on Education (ACE) Women's Network Institutional representative 2023-present
- 3. Public Health Academic Practice Network member, 2023-present
- 4. "Eat Smart Move More NC" Partner Engagement Subcommittee member 2023- 2024
- 5. NCWU Graduate Council member 2023-present
- 6. Created and implemented the Master of Public Health at NCWU
- 7. Faculty Council Chair, 2022-2023
- 8. NCWU Exercise Science Faculty Search Committee member, 2022-2023
- 9. NCWU Public Health Faculty Search Committee Chair, 2022-2023
- 10. NCWU Undergraduate research Symposium Judge, 2023
- 11. Director, NCWU Office of Undergraduate Research 2021-2024
- 12. Viral Response Team (VIRT) member, 2021-present
- 13. Faculty Council Vice Chair, 2021-2022
- 14. NCWU Honors Program Student Senior Thesis Committee Chair, 2021-2022, student: Megan Mackey
- 15. NCWU Honors Program Student Senior Thesis Committee member, 2021-2022, student: Hayleigh Heckman
- 16. NCWU Chuck Taylor Leadership Award Selection Committee, 2021, 2022, 2023
- 17. NCWU Visiting Professor of Nursing Faculty Search Committee, 2021
- 18. NCWU Assistant Professor of Communication Faculty Search Committee, 2020-2021
- 19. NCWU Honors Program Student Senior Thesis Committee Chair, 2020-2021, student: Madison Gill
- NCWU Honors Program Student Senior Thesis Committee member, 2020-2021, student: Rolando Valladerez
- 21. NCWU RN-BSN Advisory Board member, 2020- present
- 22. NCWU Exercise Science Faculty Search Committee member, 2020-2021
- 23. NCWU Quality Enhancement Plan Assessment Committee Co-Chair, 2020-present
- 24. NCWU Teaching and Learning Center Advisory Board member, 2019- present
- 25. UNC Charlotte Kinesiology Research Symposium Steering Committee member 2019- present
- 26. Chair for the Psychology, Psychiatry, and Behavior session at the SEACSM Annual Meeting in Jacksonville, FL, 2/2020.
- 27. American College of Sports Medicine, Southeast Chapter, Social Media Sub-committee member, 2019-2020
- 28. NCWU RN-BSN Nursing Program Director Search Committee member, 2019-2020
- 29. NCWU Assistant Professor of Health Promotion Faculty Search, Chair, 2018-2019

- 30. NCWU Curriculum Committee member, 2018-2021
- 31. Health Promotion program Coordinator 2017- present
- 32. NCWU Writing Program Committee member, 2017-2020
- 33. NCWU Institutional Review Board (IRB) Chair, 2017-2019
- 34. NCWU Institutional Review Board (IRB) Vice Chair, 2016-2017
- 35. NCWU Quality Enhancement Plan Development Committee member 2017
- 36. NCWU Quality Enhancement Plan Exploratory Committee member 2016
- 37. NCWU Exercise Science Honors Program Student Senior Thesis Committee Chair, 2017-2018, student: Julia Rebellon
- 38. NCWU Exercise Science Honors Program Student Senior Thesis Committee Co-Chair, 2016-2017, student: Abigail Leonard
- 39. NCWU Exercise Science Honors Program Student Senior Thesis Committee Co-Chair, 2016-2017, student: Christina Huber
- 40. NCWU Academic Activities Task Force Member 2016
- 41. NCWU Exercise Science Faculty Search Committee member, 2015-2016
- 42. NCWU Exercise Science Honors Program Student Senior Thesis Committee member, 2015-2016, student: Nicole Liette
- 43. NCWU Exercise Science Accreditation Advisory Committee member, 2015-present

Journal Reviewer:

- 1. The International Journal of Psychiatry in Medicine (IJPM), 2012
- 2. Psychopharmacology, 2013
- 3. Psychopharmacology, 2014
- 4. PLoS One, 2014
- 5. International Journal of Endocrinology, 2015
- 6. Psychoneuroendocrinology (PNEC), 2015
- 7. Psychoneuroendocrinology (PNEC), 2015
- 8. Psychoneuroendocrinology (PNEC), 2015
- 9. Psychoneuroendocrinology (PNEC), 2016
- 10. Psychoneuroendocrinology (PNEC), 2016
- 11. Psychoneuroendocrinology (PNEC), 2016
- 12. British Medical Journal (BMJ) Open, 2017
- 13. Sleep Medicine Reviews, 2018
- 14. Cognitive Neurodynamics, 2018
- 15. Psychoneuroendocrinology (PNEC), 2018
- 16. Psychoneuroendocrinology (PNEC), 2019
- 17. Medicine and Science in Sport and Exercise (MSSE), 2019
- 18. Sleep Science, 2020
- 19. Medicine and Science in Sport and Exercise (MSSE), 2020
- 20. International Journal of Women's Health, 2020
- 21. Nature and Science of Sleep, 2020
- 22. Journal of Sleep Research, 2020
- 23. Medicine and Science in Sport and Exercise (MSSE), 2021
- 24. Hormones and Behavior, 2021
- 25. Medicine and Science in Sport and Exercise (MSSE), 2021
- 26. Neuropsychiatric Disease and Treatment, 2021
- 27. Frontiers in Genetics, 2022
- 28. European Journal of Sports Science, 2022
- 29. Psychoneuroendocrinology (PNEC), 2022
- 30. Psychoneuroendocrinology (PNEC), 2022
- 31. Biology, 2022

- 32. Neuropsychiatric Disease and Treatment, 2023
- 33. Women in Sport and Physical Activity, 2024

Textbook Reviewer:

1. ACSM's Clinical Exercise Physiology, 2020

Scientific Abstract Reviewer:

- 1. North Carolina Public Health Association (NCPHA), 2023
- 2. Carolina's Exercise Science Research Symposium, 2021
- 3. Southeast Chapter of the American College of Sports Medicine (SEACSM), 2020
- 4. American Psychosomatic Society (APS), 2015

Conference Organization/Planning:

- NCWU "Lunch n' Learn Series for Health" organizer 2019-present (winner of Student Activities, "Program of the Year" 2019-2020)
- 27th Annual Postpartum Support International Conference (Chapel Hill, NC) Volunteer: Assisted with conference planning, public outreach, and assisted with vignette/served as co-presenter for "Three Faces of Psychotherapy" talk. 6/2014
- Midlands Postpartum Coalition, "Postpartum Depression and the Family" Conference (Columbia, SC): assisted with planning, organization, and conduction of conference. 4/2011

Mentorship:

- NCWU Faculty Advisor/supervisor for "The effect of Physical Activity after Concussion on Concussionrelated Sleep Problems" project. Students: Tristan Vansteene, Ryan Cyusa
- NCWU Faculty Advisor/supervisor for "Sleep and Depression after Sport-Related Concussion" project. Student: Savanna Chenault
- NCWU Faculty Advisor for "Pharmacology of Exercise" Honor's Student option for EXS 460. Student: Rolando Valladarez
- NCWU Faculty Advisor/supervisor for "DHA and Sleep in Individuals with Depression" project. Student: Bianca Bollatti
- NCWU Faculty Advisor/supervisor for "NCWU Estradiol Study" project. Students: Alisa Avery, Jessica Wall
- NCWU Faculty Advisor/supervisor for "Barriers to Physical Activity in Rural North Carolina" project. Students: Mehli Marcellus, Tyler Ricks
- NCWU Exercise Science Internship Supervisor 2016-2017, students: Lyndsay Wolfe, Andrea Tobar, Sierra Hayden
- University of North Carolina at Chapel Hill Honors College Practicum Mentor 2015, student: Audra Goldstein
- University of North Carolina at Chapel Hill Student Internship Mentor 2015, student: Carissa Cartelli (currently enrolled in the physician's assistant graduate program at Cornell University, NY)
- National Science Foundation Summer Undergraduate Research Experience (SURE-REU) Program in Molecular Biosciences Fellowship mentor 2014, student: Andrea Ramirez (winner of a 2014 student travel award to the 2014 Annual Biomedical Research Conference for Minority Students)
- USC Student Undergraduate Research Fellowship (SURF) mentor and co-mentor 2010-2013, students:
- Ji Lim (Discovery Day Undergraduate Research Poster Award, honorable mention)
- Lauren Miyares (currently a medical student at Georgetown University in Washington D.C.)
- Lauren Stogner (1st Place Undergraduate Research Poster Award; currently a medical student at the University of South Carolina, Columbia, SC)

- Rebecca Spitzer (currently a master's student at the Gillings School of Public Health, UNC-Chapel H
- Elizabeth Ernest
- USC Student Undergraduate Research Fellowship co-mentor 2010-2012, students: Molly Higgins; Hayley Elia (recipient of USC's Prestigious Undergraduate Woman of the Year Award; currently a master's student at the Rollins School of Public Health, Emory University, GA)
- USC EXSC 481 Undergraduate Practicum Mentor 2013, students: Leanna Jabbonsky; Sarah DePaepe

Other Academic/Professional/Community Service:

- North Carolina Down Syndrome Alliance Parent Mentor, 2020 to present
- NCWU Exercise is Medicine on Campus Faculty Advisor, 2018-present
- NCWU Exercise Science Club Faculty Advisor, 2016-2017
- NCWU Bishop 5K for a Cause Faculty Chair and Organizer, 2016
- North Carolina State Science and Engineering Fair Scientific Review Committee Member 2015
- University of South Carolina Undergraduate Research Discovery Day judge: 2011, 2012, 2013
- Central South Carolina Region II Science and Engineering Fair judge: 2012, 2013
- University of South Carolina Women's Health Research Forum volunteer: 2010,2011
- Denver, CO Regional Science Fair judge: 2005, 2006, 2008, 2009

Academic and Professional Organizations

- North Carolina Public Health Association (NCPHA)
- American College of Sports Medicine (ACSM)
- Southeast Chapter of the American College of Sports Medicine (SEACSM)
- Omicron Delta Kappa (ODK) Honor and Service Fraternity
- North Carolina Down Syndrome Alliance

Professional Development

- American College of Sports Medicine/Centers for Disease Control "Physical Activity and Public Health Specialist" Certificate Course, 5/2023
- Advanced Jenzabar E-Learning Training (JET) training for online instruction, 7/2022
- Advanced Jenzabar E-Learning Training (JET) training for online instruction, 7/2020
- University of California-Irvine Salivary Bioscience statistical analysis workshop, 5/2019
- University of California-Irvine Salivary Bioscience workshop, 7/2018
- Basic Jenzabar E-Learning Training (JET) training for online instruction, 8/2017