CHARIS WILTSHIRE, MPH

(770) 653-4119 cwiltsh@emory.edu 1125 Clairemont Ave, Apt B Decatur, GA, 30030

EDUCATION

Doctorate of Philosophy (PhD)

Atlanta, GA

Rollins School of Public Health, Emory University

Matriculated Fall 2022

Department of Epidemiology Advisor: Dr. Shakira Suglia

Master of Public Health (MPH)

Detroit, MI

Wayne State University, Public Health Methods

May 2022

GPA: 3.89

Advisor: Dr. Deborah Ellis

Bachelor of Science

Atlanta, GA

Emory University, Neuroscience and Behavioral Biology

May 2018

GPA: 3.14

Minored in Theatre

RESEARCH EXPERIENCE

Detroit Trauma Project, Wayne State University School of Medicine,

Detroit, MI 2018 - 2022

Principal Investigator (PI): Dr. Tanja Jovanovic

- Regulatory Consultant
 - o NIMH monitoring close-out visit of R01MH111682
- Community Engagement Coordinator promoted October 2021
 - Led initiatives to foster collaboration between research lab and local community organizations (Brilliant Detroit & Empowerment Zone Coalition)
 - o Built a cross department intergenerational research consortium with collaborators at Wayne State University
 - o Built data collection instruments in REDCap
 - o Prepared IRB submissions
 - Presented research findings at Anxiety and Depression Association of America
- Lead Research Assistant promoted October 2019
 - Acted as project coordinator on Critical Periods in Brain Development,
 National Institutes of Mental Health (NIMH) Grant R01MH111682
 - Coordinated study protocols, staff and participant schedules, and community engagement activities
 - o Oversaw regulatory documents in preparation for NIMH monitoring visits
 - Maintained participant databases in HIPPA compliant research specific software (Ripple)

 Presented research findings at Anxiety and Depression Association of America

• Research Assistant

- Collected data through participant interviews, psychophysiological response, neuroimaging, and biologics: blood and saliva
- Collected & analyzed data, maintained regulatory documents for AURORA Study NIH U01 MH110925
- o Worked with pediatric populations and adults recruited from the ED
- Processed and analyzed psychophysiological data: heart rate variability and electromyograph data
- Wrote protocols for data collection with pediatric populations
- Presented research findings at Anxiety and Depression Association of America

Henry Ford Health System, Department of Family Medicine

Detroit, MI 2021-2022

Advisor: Dr. Denise White Perkins

- Evaluated the impact of a Group Medical Visit strategy on the Medicare Wellness Visit's ability to close the health maintenance gap and improve patient satisfaction
- Assisted in data entry, analysis, and interpretation of their pilot data from a quality improvement project implementing group Medicare wellness visits
- Designed infographics to share with stakeholders interested in adopting group Medicare wellness visit format
- Worked with an interprofessional team to build a data abstraction table in an online data collection tool (REDCap) to capture variables of interest
- Presented findings at American College of Preventive Medicine Conference March 2023
- Led writing, revision, and submission of short report to Journal of Preventive Medicine

The Grady Trauma Project, Emory University School of Medicine Research Intern, Atlanta, Georgia

2017 to 2018

- Collected data through participant interviews and psychophysiological response
- Updated study protocols for training purposes

Research Papers

Charis N. Wiltshire, Nicole Kouri, Cassandra P. Wanna, Sean T Minton, John M. France, Mariam Reda, William Davie, Sattvik Basarkod¹, Sterling Winters, Rebecca Hinrichs, Anais F. Stenson, PhD, Tanja Jovanovic, PhD. "Resting Heart Rate Associations with Violence Exposure and Posttraumatic Stress Symptoms: Sex Differences in Children." Under Review at Biology of Sex Differences. Submitted December 2023.

Wiltshire, C., Budzynska, K., Kulkarni, P., Shoyinka, N., & Perkins, D. W. (2023). Group Medicare Wellness Visits: A Pilot Exploration of an Approach to Wellness and Preventive Medicine for Older Adults. Preventive Medicine Reports, 102514.

Charis N. Wiltshire, B.S.*, Cassandra P. Wanna, B.A.*, Anaïs F. Stenson, Ph.D., Sean T. Minton, B.A., Mariam H. Reda, B.S., William M. Davie, B.S., Rebecca Hinrichs, M.A., Sterling Winters, B.S., John M. France, B.S., and Tanja Jovanovic, Ph.D *Co-first authors. "Associations between children's trauma-related sequelae and skin conductance captured through mobile technology." Behaviour Research and Therapy (2022): 104036.

Seligowski, A. V., Harnett, N. G., Ellis, R. A., Grasser, L. R., Hanif, M., **Wiltshire**, C., Ely, T. D., Lebois, L. A. M., van Rooij, S. J. H., House, S. L., Beaudoin, F. L., An, X., Neylan, T. C., Clifford, G. D., Linnstaedt, S. D., Germine, L. T., Bollen, K. A., Rauch, S. L., Haran, J. P., Storrow, A. B., ... Jovanovic, T. (2024). Probing the neurocardiac circuit in trauma and posttraumatic stress. *Journal of psychiatric research*, *176*, 173–181.

Oliver, K.I., Stenson, A., van Rooij, S.J.H., Johnson II, C.B., Ely, T.D., Powers, A., Minton, S.T., **Wiltshire**, C., Kim, Y.D., Hinrichs, R., Jovanovic, T., & Stevens, J.S. (in press). Impacts of Early Life Adversity on the Neurocircuitry of Emotional Memory in Children. *Development and Psychopathology*.

Ellis, R., McHugh, R. K., Davie, W., **Wiltshire, C.,** McLean, S., Ressler, K., ... & Seligowski, A. (2024). Sex Differences in Prospective Trajectories of Alcohol but Not Marijuana Use Following Trauma. *Drug and Alcohol Dependence*, 260, 110341.

Basarkod S, Valbrun S, **Wiltshire C,** France JM, Davie W, Winters S, George SA, Stenson AF, Jovanovic T. Prospective Measurement of Skin Conductance Response during Trauma Interview Predicts Future PTSD Severity in Trauma Exposed Children. Journal of Mood & Anxiety Disorders. 2024 Mar 2:100061.

France, J.M., Reda, M., Marusak, H.A., Riser, M., Wiltshire, C.N., Davie, W.M., Grasser, L.R., Wanna, C.P., Stenson, A.F., Ely, T.D. and Norrholm, S.D., "Anxiety, fear extinction, and threat-related amygdala reactivity in children exposed to urban trauma." Journal of Experimental Psychopathology, 13(4), 2022

Jovanovic, T., **Wiltshire, C.N.,** Reda, M.H., France, J., Wanna, C.P., Minton, S.T., Davie, W., Grasser, L.R., Winters, S., Schacter, H., Marusak, H.A., and Stenson, A.F. "Uncertain in the face of change: Lack of contingency shift awareness during extinction is associated with higher fear-potentiated startle and PTSD symptoms in children." International Journal of Psychophysiology

Antonia V. Seligowski PhD, Elizabeth R. Steuber MD, Rebecca Hinrichs MS, Saswati Datta PhD, Mariam H. Reda BS, Charis Wiltshire BS, Sterling J. Winters BS, Karlye A. Phillips BA, Stacey L. House MD, PhD, Francesca L. Beaudoin MD, PhD, Xinming An PhD, Jennifer S. Stevens PhD, Donglin Zeng PhD, Thomas C. Neylan MD, Gari D. Clifford DPhil Sarah D. Linnstaedt PhD, Laura T. Germine PhD, Kenneth A. Bollen PhD, Guia Guffanti PhD, Scott L. Rauch MD, John P. Haran MD, PhD, Alan B. Storrow MD, Christopher Lewandowski MD, Paul I. Musey MD Jr., Phyllis L. Hendry MD, Sophia Sheikh MD, Christopher W. Jones MD, Brittany E. Punches PhD, RN, Michael C. Kurz MD, Robert A. Swor DO, Nina T. Gentile MD, Vishnu P. Murty PhD, Meghan E. McGrath MD, Lauren A. Hudak MD, MPH, Jose L. Pascual MD, PhD, Mark J. Seamon MD, Elizabeth M. Datner MD, Anna M. Chang MD, Claire Pearson MD, David A. Peak MD, Roland C. Merchant MD, MPH, ScD, Robert M. Domeier MD, Niels K. Rathlev MD, Brian J. O'Neil MD, Leon D. Sanchez MD, MPH, Steven E. Bruce PhD, Mark W. Miller PhD, Robert H. Pietrzak PhD, MPH, Jutta Joormann PhD, Deanna M. Barch PhD, Diego A. Pizzagalli PhD, John F. Sheridan PhD, Jordan W. Smoller MD, Thaddeus W W. Pace PhD, Beatriz Luna PhD, Elisabeth Binder MD, PhD, Steven E. Harte PhD, James M. Elliott PhD, Karestan C. Koenen PhD, Ronald C. Kessler PhD, Samuel A. McLean MD, MPH, Kerry J. Ressler MD, PhD, and Tanja Jovanovic PhD. "A prospective examination of sex differences in posttraumatic autonomic functioning." Neurobiology of Stress, 15 (2021): 100384.

Reda, M., Stenson, A., France, J., **Wiltshire, C.**, Wanna, C., Minton, S. and Jovanovic, T., *Effects of Violence Exposure on Fear Conditioning and Extinction Differ by Sex in a Pediatric Population*. Biological Psychiatry, 87(9), p.S168. 2020

Seligowski, A., Steuber, E., Dumornay, N., Phillips, K., Minton, S., Reda, M., **Wiltshire, C.**, Wanna, C., Winters, S., An, X. and McLean, S., *Physiological Responses to Fear Conditioning as Indicators of PTSD and Related Symptom Trajectories Following Trauma*. Biological Psychiatry, 87(9), pp.S75-S76. 2020

Conference Presentations

"An epigenome-wide association study of cumulative stress in adults living in the United States." Elizabeth Clausing, **Charis Wiltshire***, Karen Conneely, Bruce Link, Rachel Shelton, and Shakira Suglia. International Society for Traumatic Stress Studies 2024. Boston, MA. *Presenting co-author

Research Poster Presentations

"Heart Rate Variability as a Protective Factor against the Impact of Trauma Exposure on Psychopathology in Urban Youth." **Charis Wiltshire**, Dominique La Barrie, Nadia Thompson, Rebecca Hinrichs, Anais Stenson, Miriam Reda, Sean Minton, William Davie, Aimee Clifford, Ye Ji Kim, Cassandra Wanna, Alexander Vance, Tanja Jovanovic. Anxiety and Depression Association of American 2023. Washington D.C.

"Group Medicare Wellness Visit: An Exploration into an Acceptable & Effective Approach to Wellness and Preventative Medicine in the Elderly." Charis Wiltshire, MPH, Katarzyna Budzynska, MD MSc, Pooja Kulkarni MD, Nike Shoyinka MD, MPH, Denise White Perkins, M.D., Ph.D. Preventive Medicine 2023. New Orleans, LA.

"The impact of childhood educational opportunity on early stage fear conditioning" Charis N. Wiltshire MPH, Mariam Reda, William Davie, John France, Anais Stenson PhD, Tanja Jovanovic PhD. Presented as a citation poster at the American Psychosomatic Society Meeting 2023. San Juan, Puerto Rico.

"Black Americans show lower depression in the face of neighborhood disadvantage" Charis Wiltshire, BS, Mariam Reda, BS, William Davie, BS, Marwa Harp, BS, Cassandra Wanna, BA, Jessica Woodford, MPH, Manessa Riser, BS, John France, BS, Anaïs F. Stenson, PhD, Seth D. Norrholm, PhD, Tanja Jovanovic, PhD. Anxiety and Depression Association of America Conference 2022. Denver, Colorado.

"Buffering Against Depressive Symptoms in Response to Community Violence" Charis Wiltshire B.S., Anaïs Stenson, Ph.D., Tanja Jovanovic, Ph.D. Presented virtually at Wayne State University's Department of Family Medicine & Public Health Sciences Research Day 2021.

"Mental Health During a Pandemic: The Association Between History of Depression and Community Stress" Charis Wiltshire, BS, Anaïs Stenson, PhD, Mariam Reda, BS, William Davie, BS, Marwa Harp, BS, Jessica Woodford, MPH, Manessa Riser, BS, John France, BS, Seth Norrholm, PhD, Tanja Jovanovic, PhD. Presented virtually at Anxiety and Depression Association of America Research Conference 2021.

"Sex Differences in Self Report of Trauma-Related Symptoms and Physiology in Children" Charis Wiltshire, B.S., Anaïs Stenson, Ph.D., Cassandra Wanna, B.A., Sean Minton, B.A., Mariam Reda, B.S., Tanja Jovanovic, Ph.D. Abstract published online in lieu of Anxiety and Depression Association of America Research Conference 2020.

"Violence Exposure is Associated with Testosterone and Emotion Regulation in Children" Charis Wiltshire, B.S., Anaïs Stenson, Ph.D., Nadia Thompson, B.A., Aimee Clifford, B.A., Bekh Bradley, Ph.D., Tanja Jovanovic, Ph.D. Anxiety and Depression Association of America Research Conference 2019. Chicago, Illinois

Non-Presenting Co-Author Research Posters

"Maternal PTSD symptoms predict male children's fear extinction learning." Smith, LR., Stenson, AF., Wiltshire, C., Minton, S., Hinrichs, R., Thompson, N., Jovanovic, T. Anxiety and Depression Association of America Annual Conference, 2023, Washington, DC.

"Staying Active: Physical Activity May Buffer the Association Between Violence Exposure, Heart Rate, & Anxiety In Children." William M. Davie, BS, Mariam Reda, BS, Charis Wiltshire, BS, John France, BS, Anaïs F. Stenson, PhD, PhD, Tanja Jovanovic, Phd. Anxiety and Depression Association of American 2023. Washington D.C.

"Skin Conductance is Associated with Future PTSD and Anxiety Symptoms in Children with Trauma Exposure." Sattvik Basarkod, Charis N. Wiltshire MPH, William M. Davie BS, Tamera E. Brunette BS, Mariam H. Reda BS, John N. France BS, Cassandra P. Wanna BS, Sterling Winters BS, Sean T. Minton BS, Rebecca Hinrichs PhD, Sophie A. George PhD, Anais F. Stenson PhD, Tanja Jovanovic PhD. Anxiety and Depression Association of America Annual Conference, 2023, Washington, DC.

"Sex differences in prospective trajectories of alcohol but not marijuana use following trauma." Ellis, R.A., McHugh, R.K., Davie, W., **Wilshire, C.**, McLean, S.A., Ressler, K.J., Jovanovic, T. & Seligowski, A.V. Harvard Psychiatry Research Day 2023, Cambridge, MA.

"Estradiol is associated with greater sympathetic activity in trauma-exposed women." Timothy J. McDermott, Theresa K. Webber, Natalie C. Noble, Julia B. Merker, Robyn A. Ellis, Rebecca Hinrichs, William Davie, **Charis Wiltshire**, Kerry J. Ressler Sarah Linnstaedt, Samuel McLean, Tanja Jovanovic, and Antonia V. Seligowski. International Society for Traumatic Stress Studies Meeting 2022. Atlanta, GA.

"Fear Conditioning, Acute Threat, and Future PTSD Symptoms in the AURORA Study." Camilo Guzman, Davie, W., Reda, M., Grasser, L., Winters, S., Wiltshire, C. Wanna, C., Seligowski, A., Stevens, J., Bruce, S., Murty, V., An, X., Kessler, R., McLean, S., Koenen, K., Ressler, K., and Jovanovic, T. Anxiety and Depression Association of America Conference 2022. Denver, Colorado.

"Ventromedial prefrontal cortex resting-state functional connectivity is linked to extinction learning in urban youth with anxiety symptoms." Reda, M.H., Marusak, H.A., Ely, T.D., van Rooij, S.J.H., Stenson, A.F., Norrholm, S.D., Stevens, J.S., France, J.M., Wiltshire, C.N., Minton, S., Tottenham, N., and Jovanovic, T. Anxiety and Depression Association of America Conference 2022. Denver, Colorado.

"Childhood Always Catches Up: Hypertension History & the Association between Childhood Trauma Profile and Depression in Adulthood." William M. Davie,

Mariam Reda, **Charis Wiltshire**, Jessica Woodford, John France, Anaïs F. Stenson, Seth Norrholm, & Tanja Jovanovic. Anxiety and Depression Association of America Conference 2022. Denver, Colorado.

"Anxiety, Fear Load, and Threat-Related Amygdala Activation in Urban Children Exposed to Trauma." John M. France, Hilary A. Marusak, Mariam Reda, Charis Wiltshire, William Davie, Casey Wanna, Manessa Riser, Anaïs F. Stenson, Timothy D. Ely, Seth D. Norrholm, Jennifer S. Stevens, and Tanja Jovanovic. Anxiety and Depression Association of America Conference 2022. Denver, Colorado.

"Psychophysiology-based clusters of trauma-exposed individuals predict trauma-related psychopathology" Lana Ruvolo Grasser; C Wanna, C Wiltshire, M Reda, W Davie, A Seligowski, K Phillips, J Stevens, V Murty, S Bruce, K Ressler, S McLean, & T Jovanovic. American College of Neuropsychopharmacology Annual Meeting 2021.

"A Crisis within the Pandemic: COVID-19 Associated Stress Predicting Post Traumatic Stress Disorder Symptomology" William M. Davie BS, Anaïs Stenson, Mariam Reda, Cassandra Wanna, **Charis Wiltshire**, Sean Minton, Marwa Harp, Jessica Woodford, Manessa Riser, Renie George, Jakayla Hart, Tanja Jovanovic, & Seth Norrholm, Ph.D. Presented virtually at Anxiety and Depression Association of America Research Conference 2021.

"Sex Differences in Fer-Potentiated Startle, Depression and Anxiety in a Pediatric Sample" Mariam Reda, BS, Anaïs Stenson, PhD, Charis Wiltshire, BS, Cassandra Wanna, BA, Sean Minton, BA, Tanja Jovanovic, PhD. Presented virtually at Anxiety and Depression Association of America Research Conference 2021.

"Differential effects of school, home, and community violence exposure on mental health symptoms in children" William M. Davie, BS, Anaïs F. Stenson, Mariam H. Reda, Charis N. Wiltshire, Cassandra P. Wanna, Sean T. Minton, Tanja Jovanovic PhD. Abstract published online in lieu of Anxiety and Depression Association of America Research Conference 2020.

"Sex Differences in Fear-Potentiated Startle, Depression and Anxiety in a Pediatric Sample" Mariam H. Reda, BS, Anaïs F. Stenson, PhD., Charis N. Wiltshire, BS, Cassandra Wanna, BA, Sean Minton, BA, Tanja Jovanovic, PhD. Abstract published online in lieu of Anxiety and Depression Association of America Research Conference 2020.

"Effects of Violence Exposure on Fear Conditioning and Extinction Differ by Sex During Childhood" Mariam H. Reda, BS, Anaïs F. Stenson, PhD., John M. France, BS, Charis N. Wiltshire, BS, Cassandra Wanna, BA, Sean Minton, BA, Tanja Jovanovic, PhD. Abstract published online in lieu of Society of Biological Psychiatry 2020.

"Physiological Responses to Fear Conditioning as Indicators of PTSD and Related Symptom Trajectories Following Trauma" Antonia Seligowski, PhD, Elizabeth Steuber, MD, Nathalie Dumornay, B.S., Karlye Phillips, B.A., Sean Minton, B.A., Mariam Reda, B.S., Charis Wiltshire B.S., Cassandra Wanna, B.A., Sterling Winters, B.S., Xinming An, Samuel McLean, PhD, Jennifer Stevens, PhD, Kerry Ressler, PhD, Tanja Jovanovic, PhD. Abstract published online in lieu of Society of Biological Psychiatry 2020.

"Kids do the darndest things: Correlations between skin conductance reactivity and trauma exposure within urban youth" Cassandra P. Wanna, B.A., Anais F. Stenson, Ph.D., **Charis N. Wiltshire**, B.S., Sean T. Minton, B.A., Mariam H. Reda, B.S., & Tanja Jovanovic, Ph.D. International Society of Traumatic Stress Studies 2019. Boston, MA

ACADEMIC AWARDS

Laney Graduate School Centennial Scholar

August 2022

ACADEMIC SERVICE

Student Member of MPH Admissions Committee

November 2020 – May 2021

Reviewed applicant portfolios and discussed potential for successful completion of the MPH program with faculty committee members.

MPH New Student Panel

January 2021, August 2021, September 2022

Shared current experiences and advice as a Wayne State MPH student and responded to program related questions from incoming students.

COMMUNITY SERVICE

Community Engagement Events

Created educational content, presentations, and psychophysiology demonstrations to demonstrate our research with the community in hopes to foster collaboration and recruit potential participants.

- Future Docs Day 2020 March 2020
- Brain Day at the Michigan Science Center March 2020
- Explainer Stations at the Michigan Science Center December 2019-March 2020

Shiloh Detroit

Team Member, Highland Park, MI, June 2019 – November 2020

Led small groups, coordinated transportation, and assisted in life-skills coaching while fostering unique and lasting relationships with the children and families in the surrounding community.

FitKids360

Running buddy, Detroit, MI Summer 2019

FitKids360 is a summer long intervention for kids who are at risk for obesity and their families to participate in a program that helps them train for a 5k.

Childcare at Tolan Park Medical Methadone Clinic

Volunteer, Detroit, MI January 2019- May 2019

Worked with coordinators of the Methadone Clinic to initiate a volunteer-based childcare for the mothers attending weekly group therapy sessions.

COMPUTER SKILLS

Programming: SPSS, R, SAS, REDCap

Applications: Data visualizations through Excel, R studio, Exploratory, Jasp and Jamovi

Platforms: Graphic Design on Canva