

CURRICULUM VITAE

Kelly Will Sheppard, Ph.D.

Social Science Researcher
Office of Behavioral Safety Research
Department of Transportation
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EDUCATION

University of North Carolina at Chapel Hill, Chapel Hill, NC 2010 – 2016
Ph.D. in Developmental Psychology

Washington and Lee University, Lexington, VA 2004 – 2008
B.S. in Psychology with a concentration in Poverty and Human Capability, 6/2008, Cum Laude

EXPERIENCE

Social Science Researcher, Department of Transportation, Washington, DC 8/2018 – present

- Level II Contract Officer Representative managing research procurements for the National Highway Transportation Safety Administration (NHTSA)
 - Developed budgets for requests for proposals and managed ongoing contract budgets, including maintaining proper financial records covering all funds and compiling reports about expenditures.
 - Assured funds were spent in accordance with applicable laws and regulations
 - Developed requests for proposals and contracts for research on child passenger safety
- Managed NHTSA research on child passenger safety and emergency medical services
- Analyzed data from nationally representative surveys about traffic safety and from national programs for reducing traffic fatalities and injuries
- Communicated with contractors and child passenger safety advocates on NHTSA projects through creating, editing, and finalizing short, overview reports and long, detailed project reports
- Appointed to a collaboration committee to develop and implement inter-agency communication guidelines to facilitate and improve the effectiveness of NHTSA's operations
- Developed final reports for internal and external stakeholders, executive summaries for senior officials, and Public Notices for the Federal Register for planned research activities

Post-doctoral Fellow, Nationwide Children's Hospital, Columbus, OH 8/2016 – 7/2018

- Analyzed data on dietary and blood levels of fatty acids and cognitive scores and compared local sample data to nationally representative databases
- Researched the latest dietary recommendations and food safety issues to remain aware of recommendations for children with autism spectrum disorder (ASD) and children born premature at the hospital
- Led cognitive assessment team for a longitudinal study of the effect of marijuana exposure in utero on children's cognitive development
- PI on a study on the link between fatty acid intake, fatty acid metabolism, brain function, and cognitive performance in children with ASD
- Trained in patient-centered pediatric research through fellowship that included workshops on ethics, developing a research program, and longitudinal study design for patient-centered research
- Trained in cognitive and nutritional assessment of children with developmental delays
- Supervised Leah Sadinski, a research assistant on my funded project who I trained in cognitive assessment and project management
- Supervised Holly Blei, Dkeama Alexis, Whitney Phillips, and Anna Wiese as the coordinator of my advisor's project and trained them in coding behavioral tasks and cognitive assessment

Research Assistant, Nutrition Research Institute, Kannapolis, NC 6/2010 – 5/2016, 20 hours/week

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- Coordinated a clinical trial of a new infant formula that included dietary assessment, cognitive assessment, and electrophysiology
- Coordinated a study using elicited and deferred imitation with children 2-3 years old
- Managed a study using behavioral assessment and neuroimaging (fNIRS) of executive functions in middle childhood
- Collected cognitive and nutritional data for a clinical trial blueberries and mild cognitive impairment
- Recruited infants through UNC-Chapel Hill's online hospital record management tool, Epic
- Trained research staff on diet assessment, elicited and deferred imitation, fNIRS, CANTAB, and the Bayley Scales of Infant and Toddler Development
- Planned and executed a one-day colloquium, Lost in Translation: A Conversation on Childhood Obesity

Community Mobilization Fellow, *Alliance for a Healthier Generation*, Washington, DC

7/2008 – 6/2010

- Part of a team that designed a standards-based after-school curriculum about nutrition and physical activity
- Implemented the pilot of our after-school curriculum with programs at YMCA, DC Department of Parks and Recreation, and local school sites
- Enhanced our ability to track data by developing and maintaining Access databases of our key health information and standard operations supporting field staff
- Supported our National Youth Advisory Board in their grassroots advocacy efforts.
- Reviewed funding applications for the Alliance and local organizations and made funding recommendations based on current needs in childhood obesity-related interventions.
- Sat on the local Youth Risk Behavior Survey committee to determine survey questions to address risky youth behavior in DC.

PROFESSIONAL SERVICE

Committee Memberships

- Led communications sub-committee for regional coordination with 10 NHTSA regions
- Represented the Office of Behavioral Research in planning the Department of Transportation's SXSW events for 2020
- Committee Member, Outreach Committee, Ohio State University Chapter, Sigma Xi, 2017 – 2018
- Center Representative, Research Institute Trainee Association, 2017 – 2018
- Developmental Lunch Speaker Committee, Department of Psychology and Neuroscience, University of North Carolina at Chapel Hill, 2013-2014

Ad-hoc Reviewer for Current Directions in Nutrition, Journal of Autism and Developmental Disorders, BMJ Open, Paediatric and Perinatal Epidemiology, and Autism Research

HONORS AND AWARDS

Merit pay and time-off award for exceeding expectation at my 1-year annual review, 8/2019

Emerging Leaders in Nutrition Science Poster Competition, **Neurobiology First Place**, American Society for Nutrition, Selected from all post-doctoral and graduate student abstracts submitted to Experimental Biology, 2017

Postdoctoral Research Award, **Finalist**, American Society for Nutrition, Selected from all post-doctoral abstracts submitted to Experimental Biology, 2017

Travel Award, Research Institute Trainee Association, Nationwide Children's Hospital, 2016

Outstanding Research Mentorship Award, Nominated by students for mentorship through research projects, 5/2016

Travel Award, Society for Research in Child Development, 2015

Travel Award, Graduate School, University of North Carolina at Chapel Hill, 2015

Department Commendation, awarded for student reviews in the top 5% of instructors in the department, 2012

PROFESSIONAL AFFILIATIONS

Transportation Research Board, 2018 –

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Society for Research in Child Development, 2010 –
American Society for Nutrition, 2011 –
Cognitive Development Society, 2011 –
Sigma Xi, 2011 –
American Psychological Association, 2013 - 2018
Flux, 2017 –

OTHER PROFESSIONAL EXPERIENCE

Statistical Consultant, Various locations 5/2015 – 8/2018, 10 hours/week

- Conducted multilevel modeling analyses for research on school program implementation and medication adherence
- Assisted researchers in planned analyses for school programs currently collecting data in the Triangle
- Conducted multilevel factor analyses for research on pharmacy medication management systems

English Language Paper Editor, *American Journal Experts*, Durham, NC 12/2011 – present, 10 hours/week

- Edited research manuscripts written by non-native English speakers
- Improved paper grammar and flow to increase likelihood of publication for international research teams

Instructor, University of North Carolina at Chapel Hill, Chapel Hill, NC 1/2011 – 5/2016, 20 hours/week

- Courses Taught/Co-Taught
 - Psyc 250: Child Development, Fall 2012, Summer 2012, Instructor, Department Commendation
 - Psyc 270: Research Methods, Fall 2015, Spring 2016, Instructor, Outstanding Research Mentorship Award
 - Psyc 190: Infancy, Fall 2011, Spring 2012, Graduate Research Consultant
 - Psyc 210: Biological Psychology, Fall 2011, Teaching Assistant
- Students and Staff Mentored
 - Shonally Bennett, Psychology 395: Independent Research
 - Supervised independent research project, “The Benefits of Nutrition in Alzheimer’s Disease”
 - Fran Bullard, College Intern, Cheatham Nutrition & Cognition Lab
 - Trained student in recruitment, data collection, and database management
 - Zach Bombadier, High School Intern, Cheatham Nutrition & Cognition Lab
 - Supervised the creation of event props for elicited and deferred imitation using a 3-D printer
 - Amber Leiker, Psychology 395: Independent Research
 - Supervised independent research project. “Effects of Zinc on Motor Tasks”

SKILLS AND CERTIFICATIONS

Contract management: Level II Contract Officer Representative
Child Passenger Safety: certified child passenger safety technician
Computer: SAS, MPlus, SPSS, Microsoft Office Suite, R, NIRSLab
Neuroimaging: electroencephalography (EEG), event-related potentials (ERP), near-infrared spectroscopy (fNIRS)
Behavioral: CANTAB, BSID-III, Elicited and Deferred Imitation, Noldus Ethovision XT, NIH Toolbox
Nutritional: 24-hour diet recalls (NDSR) and food frequency questionnaires (Block FFQ & NCI DHQ)
Statistical: Structural equation modeling, multi-level modeling, growth curve analysis
Team Management: courses on conflict resolution and skill development, training and practice, 9/1/2017 – present

PUBLICATIONS

Refereed Articles

Ingol, T. T., Li, R., Boone, K. M., Rausch, J., Klebanoff, M. A., Turner, A. N., Yeates, K. O., Nelin, M. A., **Sheppard, K. W.**, and Keim, S. A. (in press). Docosahexaenoic and arachidonic acid supplementation of toddlers born preterm does not affect short-term growth or adiposity. *The Journal of Nutrition*.

Saleska, J. L., **Sheppard, K. W.**, Turner, A. N., Boone, K. M., and Keim, S. A. (in press) Parental perceptions and behaviors regarding child weight status among toddlers born preterm. *The American Journal of Perinatology*.

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Sheppard, K. W. & Cheatham, C. L. (2018). Lower dietary omega-6 to omega-3 fatty acid ratios are associated with overall healthier diets in human children and older adults. *Lipids in Health and Disease*. 17: 43.
<https://doi.org/10.1186/s12944-018-0693-9>

Keim, S.A., Gracious, B., Boone, K. M., Klebanoff, M. A., Rogers, L. K., Rausch, J., Coury, D. L., **Sheppard, K. W.**, Husk, J., & Rhoda, D. A. (2018). Omega-3 and -6 fatty acid supplementation may reduce autism symptoms based on parent report in preterm toddlers. *Journal of Nutrition*, 148(2), 227-235.

Livet, M., Yannayon, M., **Sheppard, K.W.**, Kocher, K., Upright, J., & McMillen, J. (2017). Exploring provider use and role of a digital implementation system for school mental health: A pilot study. *Administration and Policy in Mental Health and Mental Health Services Research*. <https://doi.org/10.1007/s10488-017-0829-7>.

Zvara, B. J., **Sheppard, K.W.**, & Cox, M. (in press). Bidirectional effects between parenting sensitivity and child behavior: Cross-lagged analysis across middle childhood and adolescence. *Journal of Family Psychology*.

Sheppard, K.W., Boone, K.M., Gracious, B., Klebanoff, M.A., Rogers, L.K., Rausch, J., Bartlett, C., Coury, D.L., & Keim, S.A. (2017). Effect of omega-3 and -6 supplementation on language in preterm toddlers exhibiting Autism Spectrum Disorder symptoms. *Journal of Autism and Developmental Disorders*, 47(11), 3358-3369. Doi: 10.1007/s10803-017-3249-3

Sheppard, K.W. & Cheatham, C.L. (2017). Validating the electric maze task as a measure of planning. *Journal of Cognition and Development*, 18 (2), 309-322. doi: 10.1080/15248372.2016.1195387.

Sheppard, K.W. & Cheatham, C.L. (2017). Executive functions and the omega-6 to omega-3 fatty acid ratio: A cross-sectional study. *American Journal of Clinical Nutrition*, 105, 32-41. doi: 10.3945/ajcn.116.141390.

Cheatham, C.L. & **Sheppard, K.W.** (2015) Synergistic effects of human milk nutrients in the support of infant recognition memory: An observational study. *Nutrients*, 7, 9079-9095.

Sheppard, K.W. & Cheatham, C.L. (2013). Omega-6 to omega-3 fatty acid ratio and higher-order cognitive functions in 7- to 9-year-olds. *American Journal of Clinical Nutrition*, 98, 659-667.

Murdock, K. K., Greene, C., Adams, S.K., Hartmann, W., Bittinger, S., & **Will, K.** (2010). The puzzle of problem-solving efficacy: Understanding anxiety among urban children coping with asthma-related and life stress. *Anxiety, Stress and Coping*, 23(4), 383-398.

Book Chapters

Sheppard, K. W. & Cheatham, C. L. (2019) The balance between n-6 and n-3 and its relation to executive function. In R. Watson & V. Preedy (Eds.), *Omega Fatty Acids in Brain and Neurological Health*, 2nd edition. Elsevier: Academic Press.

Cheatham, C. L. & **Sheppard, K. W.** (2017). Nutritional Sciences. In B. Hopkins, E. Geangu, & S. Linkenauer (Eds.), *The Cambridge Encyclopedia of Child Development* (793-798). Cambridge, UK: Cambridge University Press.

Refereed Presentations and Abstracts

Keim S.K., Boone K.M., Pattison, K., Ingol, T., Pelak, G., **Sheppard, K.W.**, Nelin, M. A., Klebanoff M.A., Rausch J., Yeates, K. O., Turner, A. N., & Rogers L.K. (2019). Developmental and behavioral follow-up at age 2 years of preterm children supplemented with docosahexaenoic and arachidonic acid at age 1 year: The Omega Tots Trial. Abstract presented at the European Academy of Pediatrics 2019 Congress, Porto, Portugal, September 19-22, 2019.

Keim S.K., Boone K.M., Gracious B., Klebanoff M.A., Rogers L.K., Rausch J., Coury D.L., Bartlett C., **Sheppard K.W.** (2017). Effect of omega-3 and -6 supplementation on language in preterm toddlers exhibiting autism spectrum disorder

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symptoms. Abstract presented at the 2017 Pediatric Academic Societies Annual Meeting, San Francisco, CA, May 6 – 9, 2017.

Sheppard, K.W. & Cheatham, C.L. (2017). The omega-6 to omega-3 fatty acid ratio predicts brain activity during planning tasks in middle childhood. Abstract presented at Experimental Biology 2017, Chicago, IL, April 22 – 26, 2017.

Cheatham, C.L., **Sheppard, K.W.**, Armer, A.L., & Millsap, G. (2015) The omega-6 to omega-3 fatty acid ratio predicts declarative memory abilities in toddlers. Presented at the Cognitive Development Society 2015 Meeting, Columbus, Ohio, October 8 - 10, 2015.

Sheppard, K.W. & Cheatham, C.L. (2015) Validation of an electric maze as a novel planning task. Presented at the Society For Research in Child Development Bi-Annual Meeting, Philadelphia, Pennsylvania, March 18 – 21, 2015.

Cheatham, C.L., Stegall, J.M., **Sheppard, K.W.**, Armer, A.L., Millsap, G.M., Wernimont, S., & Zeisel, S.H. (2014). The relation of human milk lutein, choline, and docosahexaenoic acid content to recognition memory abilities of 6-month-old breastfed infants. Paper presented at Experimental Biology 2014, San Diego, CA. April 26-30, 2014. Re-presented at Pediatric Academic Societies 2014, Vancouver, British Columbia, Canada, May 3-6, 2014.

Cheatham, C.L., **Sheppard, K.W.**, Lupu, D.S., & Niculescu, M.D. (2013). Flaxseed oil supplementation increases long-chain omega-3 and omega-6 fatty acids in plasma. Presented at Experimental Biology 2013, Boston, Massachusetts, April 20-24, 2013.

Sheppard, K.W., Cheatham, C.L., & Stegall, J. (2013) Omega-6 to omega-3 fatty acid ratios and higher order cognitive functions in children 7 to 9 years old. Presented at the Society for Research in Child Development Bi-Annual Meeting, Seattle, Washington, April 17-20, 2013.

Will, K., Cheatham, C. L., & Stegall, J. (2011) Omega-6 to omega-3 fatty acid ratios and higher order cognitive functions in 7-to-9-year-olds. Presented at the Seventh Biennial Meeting of the Cognitive Development Society, Philadelphia, Pennsylvania, October 14-15, 2011. Re-presented at the Sigma Xi Annual Meeting, Raleigh, North Carolina, November 11-12, 2011.

Invited Oral Presentations

Sheppard, K. W. “It’s All About Balance: Work, Life, and Fatty Acids”. Developmental Lunch Speaker Series, Department of Psychology and Neuroscience, University of North Carolina at Chapel Hill, December 6th, 2017.

Sheppard, K. W. “Understanding Optimal Omega-3 and Omega-6 Fatty Acid Intake to Support Cognitive Development”. Ohio State University Nutrition Seminar Series, Ohio State University, September 29th, 2017.

Sheppard, K.W. “It’s All About Balance: Fatty Acids and Executive Functions”. Developmental Lunch, University of North Carolina at Chapel Hill, October 21st, 2015.

Cheatham, C.L. & Sheppard, K.W. “Berries and Brain: Partners in Life and Longevity”. Appetite for Life, University of North Carolina at Chapel Hill Nutrition Research Institute, April 22nd, 2014.

Sheppard, K. W. “Developmental Cognitive Neuroscience”. 11th Annual Charlotte Life Sciences Conference. On behalf of Dr. Carol L. Cheatham, October 25th, 2012.

Sheppard, K.W. & Cheatham, C. L. “Fatty Acids’ Influence on Cognitive Development: Evidence from Infancy to Childhood”. Developmental Lunch, University of North Carolina at Chapel Hill, December 7th, 2011.