

CURRICULUM VITAE
Dana McCarty PT, DPT, PhD
6/13/2025

Contact Information	Department of Health Sciences UNC School of Medicine 3024 Bondurant Hall CB#7135 Chapel Hill, NC 27599 Office: (919) 843-8792 Cell: (803) 983-0971 Work Email: dana_mccarty@med.unc.edu
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EDUCATION and TRAINING

2020-2024	Doctor of Philosophy, Maternal and Child Health Gillings School of Global Public Health University of North Carolina at Chapel Hill
2017-2019	Graduate Certificate, Core Public Health Concepts Gillings School of Global Public Health University of North Carolina at Chapel Hill
2010-2011	Duke Health Pediatric Physical Therapy Residency Physical and Occupational Therapy Duke University Hospital
2005-2008	Doctor of Physical Therapy Arnold School of Public Health University of South Carolina
2002-2005	Bachelor of Arts, Dance Columbia College

LICENSURE and CERTIFICATIONS

2025	NeoNatal Neurobehavioral Scales-II (NNNS-II) Newborn Assessment – Trainer Certification
2023	NeoNatal Neurobehavioral Scales-II (NNNS-II) Newborn Assessment – Examiner Certification
2021	Certification in Prechtl's General Movements Assessments (Advanced)
2018	Credentialed Clinical Instructor – Level II, American Physical Therapy Association
2017	Certification in Prechtl's General Movements Assessment (Basic)
2014-2020	Certification in Neurodevelopmental Treatment (c/NDT), NDTA

2012-present	Board Certified Specialist in Pediatrics (PCS), American Board of Physical Therapy Specialties
2011	Credentialed Clinical Instructor – Level I, American Physical Therapy Association
2009-present	Licensed Physical Therapist, North Carolina (#12000)
2008	Preparing Future Faculty Certificate, Center of Teaching Excellence, University of South Carolina
2005-present	American Heart Association, CPR and BLS Certification: Health Care Provider

PROFESSIONAL APPOINTMENTS and EMPLOYMENT

Academic Appointments

2025-present	Assistant Professor (Tenure Track) Division of Physical Therapy, Department of Health Sciences University of North Carolina at Chapel Hill
2021-2025	Clinical Assistant Professor (Variable Track) Division of Physical Therapy, Department of Health Sciences University of North Carolina at Chapel Hill
2015-2021	Clinical Assistant Professor (Fixed Term) Division of Physical Therapy, Department of Health Sciences University of North Carolina at Chapel Hill
2008-2010	Graduate Research Assistant Rehabilitation Lab University of South Carolina

Administrative Appointments

2015-present	Director UNC Pediatric Physical Therapy Residency University of North Carolina at Chapel Hill
2015-2019	Director of Clinical Education Division of Physical Therapy, Department of Health Sciences University of North Carolina at Chapel Hill
2012-2015	Co-Director Pediatric Physical Therapy Residency Program Duke University Health System
2012-2015	Center Coordinator for Clinical Education Duke University Health System

Clinical Appointments

2020-present	Coordinator and Mentor, UNC Health Neonatal Physical Therapy Fellowship, University of North Carolina at Chapel Hill
2018-present	Physical Therapist, Newborn Critical Care Center, UNC Children's Hospital, University of North Carolina at Chapel Hill
2015-2018	NC-LEND Faculty and Physical Therapist, Carolina Institute for Developmental Disabilities, University of North Carolina at Chapel Hill

2011-2015	Senior Physical Therapist, Neonatal Intensive Care Unit and Inpatient Pediatrics, Duke University Health System
2010-2011	Pediatric Physical Therapy Resident, Duke University Health System
2009-2010	Physical Therapist, Inpatient Pediatrics, Adult Aquatics, Duke University Health System
2009	Physical Therapist, Acute Care, Duke Raleigh Hospital

HONORS & AWARDS

2024	Dissertation Award – Academy of Pediatric Physical Therapy, American Physical Therapy Association
2023	Promotion of Doctoral Studies (PODS II) Scholarship – Foundation for Physical Therapy
2022	PEO Scholars Award – PEO International
2021	Promotion of Doctoral Studies (PODS I) Scholarship – Foundation for Physical Therapy
2017	Outstanding Faculty Award – Student-nominated, UNC Division of Physical Therapy
2014	Clinical Ladder Promotion, Duke Hospital, Senior Physical Therapist, Level IV
2013	Clinical Ladder Promotion, Duke Hospital, Senior Physical Therapist, Level III
2012-2014	Patient Service Champion, Duke Hospital

BIBLIOGRAPHY

Books and Book Chapters

1. **McCarty DB** and Boynewicz K. Neonatal Opioid Withdrawal Syndrome (NOWS): Speech-Language Pathologists and Interprofessional Care. In Louw B. ed. *Neonatal Opioid Withdrawal Syndrome (NOWS): The impact on the movement system and the role of the physical therapist*. 1st ed. Routledge; 2024. 187-212.
2. Pineda R, **McCarty DB**, Inder T. Neurological and Neurobehavioral Evaluation. In: Perlman and Inder eds. *Neonatology Questions and Controversies: Neurology*. 4th ed. Elsevier; 2023. 50-103.
3. Paramore B, Peat J, **McCarty DB**. Gross Motor Development. In: Malcolm, WF, ed. *Beyond the NICU: Comprehensive Care of the High-Risk Infant*. 1st ed. New York, NY: McGraw-Hill; 2014. 764-780.

Peer-reviewed Articles

(*indicates trainee)

1. **McCarty DB**, Ferrari RM, Golden S, Zvara BJ, Wilson WD, Shanahan ME. Identifying Facilitators and Barriers to Neonatal Intensive Care Unit Visitation in Mothers of Low Socioeconomic Status: A Qualitative Investigation. *Children (Basel)*. 2024;11(11):1390. Published 2024 Nov 16. doi:10.3390/children11111390.
2. **McCarty DB**, Golden SD, Ferrari RM, Zvara BJ, Wilson WD, Shanahan ME. Sociodemographic characteristics of maternal presence in neonatal intensive care: an

- intersectional analysis. *J Perinatol*. Published online November 21, 2024. doi:10.1038/s41372-024-02175-z.
3. Miller K, Willett S, **McCarty D**, Dusing SC. Neonatal therapy principles during transition from neonatal intensive care unit to home: A modified Delphi study. *Dev Med Child Neurol*. 2025;67(3):357-364. doi:10.1111/dmcn.16075.
 4. *Shuman A, Umble K, **McCarty DB**. Accuracy of Parent Presence Documentation in the NICU: A Data Validation and Quality Improvement Analysis. *Cureus*. 2024;16(6): e63110. Published 2024 Jun 25. doi:10.7759/cureus.63110.
 5. **McCarty DB**, *Clary-Williams E, *LeBlond KD, Liu T, Zbornik-Thompson T, Ulrich JN and Go MS. Interdisciplinary collaborative eye examinations to protect preterm infant neurodevelopment: a quality improvement project. *Front Psychol*. 2024; 15:1354033. doi: 10.3389/fpsyg.2024.1354033
 6. **McCarty DB**, *Sierra-Arevalo L, *Caldwell Ashur AC, White JT, Villa Torres L. Spanish Translation and Cultural Adaptations of Physical Therapy Parent Educational Materials for Use in Neonatal Intensive Care. *Patient Prefer Adherence*. 2024;18:93-100. doi.org/10.2147/PPA.S432635.
 7. **McCarty D**, *Silver R, Quinn L, Dusing S, O'Shea TM. Infant massage as a stress management technique for parents of hospitalized extremely preterm infants. *Infant Ment Health J*. 2024;45(1):11-21. doi:10.1002/imhj.22095
 8. *Bosserman J, *Kelkar S, *LeBlond KD, Cassidy J, **McCarty DB**. Postural Control Measurements to Predict Future Motor Impairment in Preterm Infants: A Systematic Review. *Diagnostics*. 2023;13(22):3473. Published 2023 Nov 18. doi:10.3390/diagnostics13223473.
 9. **McCarty DB**, Dusing SC, Thorpe D, Weinberger M, Pusek S, Gilbert A, Liu T, Blazek K, Hammond S, O'Shea TM. A Feasibility Study of a Physical and Occupational Therapy-Led and Parent-Administered Program to Improve Parent Mental Health and Infant Development. *Phys Occup Ther Pediatr*. Published online October 22, 2023. doi:10.1080/01942638.2023.2271102
 10. **McCarty DB**, Hite A, Brown A, Blazek K, Quinn L, Hammond S, Boynton M, O'Shea TM. A pilot exploratory study examining the potential influence of continuous positive airway pressure devices on cranial molding trajectories in preterm infants. *PLoS One*. 2023;18(10):e0292671. Published 2023 Oct 12. doi:10.1371/journal.pone.0292671
 11. **McCarty DB**, Dusing SC, Gilbert A, LeBlond KD, Soucie M, O'Shea TM. Parent and Therapist Perceptions of the Feasibility, Acceptability, and Benefits of a Weekly Therapist-Led Massage Program for Extremely Preterm Infants in Neonatal Intensive Care. *Children*. 2023;10(9):1453. 2023 Aug 25. doi:10.3390/children10091453
 12. **McCarty DB**, Willett S, Kimmel M, Dusing SC. Benefits of maternally-administered infant massage for mothers of hospitalized preterm infants: a scoping review. *Matern Health Neonatol Perinatol*. 2023;9(1):6. Published 2023 May 3. doi:10.1186/s40748-023-00151-7
 13. **McCarty DB**, Letzkus L, Attridge E, Dusing SC. Efficacy of Therapist Supported Interventions from the NICU to Home: A Meta-Review of Systematic Reviews. *Clin Perinatol*. 2023;50(1):157-178. doi:10.1016/j.clp.2022.10.004
 14. **McCarty DB**. Recognizing Our Biases, Understanding the Evidence, and Responding Equitably: Application of the Socioecological Model to Reduce Racial

- Disparities in the NICU. *Adv Neonatal Care*. 2023;23(1):31-39. doi:10.1097/ANC.0000000000000987.
15. *Dunn, B, McIntosh J, Ray L, and **McCarty D**. The Prevalence of Implicit Bias in Practicing Physical Therapists. *Carolina Journal of Interdisciplinary Medicine*. 2022;2(1). doi.org/10.47265/cjim.v2i1.2008.
 16. **McCarty D**, Shanahan M. Theory-Informed Clinical Practice: How Physical Therapists Can Use Fundamental Interventions to Address Social Determinants of Health. *Phys Ther*. 2021;101(10):pzab158. doi:10.1093/ptj/pzab158.
 17. **McCarty DB**. Author Response to Kharel et al. *Phys Ther*. 2020;100(6):1041-1042. doi:10.1093/ptj/pzaa041.
 18. **McCarty DB**, Peat J, O'Donnell S, Graham E, Malcolm W. Choose PT for Neonatal Abstinence Syndrome: Clinical Management for Infants Affected by the Opioid Epidemic. *Physical Therapy*. June 2019;99(6):771-785.
 19. **McCarty DB**, O'Donnell S, Goldstein RF, Smith PB, Fisher K, Malcolm WF. Use of a Midliner Positioning System for the Prevention of Cranial Molding Deformities in Preterm Infants. *Pediatric Physical Therapy*. Apr 2018;30(2):126-134.
 20. Lardinois KL, Gosselin D, **McCarty D**, Ollendick K, Covington K. A Collaborative Model of Integrated Clinical Education in Physical Therapist Education: Application to the Pediatric Essential Core Competency of Family-centered Care. *Journal of Physical Therapy Education*. 2017; 31(2):131-136
 21. **McCarty DB**, Peat J, Malcolm WF, Smith B, Fisher K, Goldstein, R. Dolichocephaly in Preterm Infants: A Retrospective Investigation of the Prevalence and Risk Factors for Cranial Molding Deformities in the NICU. *American Journal of Perinatology*. 2017; 34: 372–378.
 22. **McCarty D**, McClenaghan B, Blanck E, Fritz S. Examining Dance Therapy as an Adjunct Therapy for Selected Measures of Postural Stability, Gait, and Sensory Processing for Children with Mild to Moderate Cerebral Palsy. *Journal of Student Physical Therapy Research*. Aug 2010; 3(1): 1-13.

In press/Submitted Peer-reviewed Articles

1. **McCarty DB**, Zadrozny S, Tarnai K, Cunningham C, Soucie M, Dusing SC. Immersive Physical Therapy in the Neonatal Intensive Care Unit: A Clinical Trial Protocol. *BMC: Pilot and Feasibility Studies*. Submitted.
2. **McCarty DB**, Ferrari RM, Golden S, Zvara BJ, Wilson WD, Shanahan ME. Maternal Presence During Neonatal Intensive Care: How Neonatal Physical Therapists Can Support Best-Practice Through Evidence and Advocacy. *Pediatric Physical Therapy*. Submitted.
3. **McCarty DB**, Blazek K, Cunningham C, LeBlond K, Compson K, Taylor G. Implementation of an Evidence-Based Physical Therapy Program in a Level IV Neonatal Intensive Care Unit. *Pediatric Physical Therapy*. Submitted.

Digital and other novel forms of scholarship

1. **McCarty DB**. Use of a Midliner Positioning System for the Prevention of Cranial Molding Deformities in Preterm Infants. *Pediatric Physical Therapy Podcasts*. Vol. 30, Issue 2. <https://journals.lww.com/pedpt/Pages/podcastepisodes.aspx?podcastid=1>.
2. **McCarty DB** and Hyams M. Considerations for Cranial Molding in the Neonatal Intensive Care Unit. Fact Sheet. APTA Academy of Pediatric Physical Therapy. May

2022. https://pediatricapta.org/includes/fact-sheets/pdfs/FactSheet_ConsiderationsforCranialMoldingNICU_2022.pdf?v=1.
3. Loira K. Using Fundamental Interventions to Address Social Determinants of Health. *APTA Magazine*. March 2022. <https://www.apta.org/apta-magazine/2022/03/01/interventions-to-address-social-determinants-health>.
Featuring: **McCarty D** and Shanahan M. Theory-Informed Clinical Practice: How Physical Therapists Can Use Fundamental Interventions to Address Social Determinants of Health. *Phys Ther*. 2021;101(10):pzab158.
doi:10.1093/ptj/pzab158.

Refereed unpublished Oral Presentations and/or Posters
(*indicates trainee)

1. **McCarty DB**, Mauger N, Bosserman J. Feasibility of Using a Force Plate to Measure Very Preterm Infant Posture and Movement at Term Equivalent Age. International Congress on Early Sensorimotor Development and NeuroDevelopmental Disorders. Oral Presentation, Tours, France. July 2025.
2. **McCarty DB**, Silver R, Quinn L, Dusing S, O'Shea TM. Infant massage as a stress management technique for parents of hospitalized extremely preterm infants. International Congress on Early Sensorimotor Development and NeuroDevelopmental Disorders. Poster Presentation, Tours, France. July 2025.
3. Dusing S, **McCarty DB**, Attal R, Stuyvenberg C, Eeles A. Exploring the Intersection between Therapeutic Interventions for Infants and Parent-Child Dyadic Emotional Availability. European Academy of Childhood-onset Disability and International Alliance of Academies of Childhood Disability Conference. Heidelberg, Germany. June 2025.
4. **McCarty DB**. Maternal Presence in the Neonatal Intensive Care Unit: What We Know and Why We Care. National Association of Neonatal Therapists Annual Conference – Oral Presentation, Indianapolis, IN. March 2025.
5. Molinini R, Stuyvenberg C, **McCarty DB**. Developmental Foundations: Elevating Parent-Child Relationships in Pediatric Physical Therapy. APTA Combined Sections Meeting – Educational Session, Houston, TX. February 2025.
6. Dusing SC, **McCarty DB**, Willett S, Spence C. Combining literature, experts, and stakeholder input to define best practice in infant intervention. APTA Pediatrics Annual Conference. Providence, RI. November 2024.
7. Blazek K, Cunningham C, LeBlond K, **McCarty, DB**. Implementing, Expanding, and Refining Physical Therapy Practice in the Neonatal Intensive Care Unit. Presented at the APTA Combined Sections Meeting. Boston, MA. February 2024.
8. **McCarty DB**. Expanding the Critical Role of the Neonatal Therapist to Support Parent Well-Being. APTA Pediatrics Annual Conference - Educational Session. Omaha, NE, October 2023.
9. Boynewicz K and **McCarty DB**. Following the Path Towards Neonatal Assessment in the NICU and Beyond. APTA Pediatrics Annual Conference - Educational Session. Omaha, NE, October 2023.
10. *Silver R, O'Shea TM, **McCarty DB**. Infant Massage as a Stress Management Technique for Parents of Extremely Preterm Infants. Presented at the University of North Carolina at Chapel Hill, Department of Health Sciences, Human Movement Science Symposium. Chapel Hill, NC. April 2022.

11. Chiarello L, Dusing SC, Letzkus L, **McCarty DB**, Miller K. Supporting NICU to EI Transition: Perspectives of Parents and Providers - Educational Session. Division for Early Childhood Conference. Chicago, IL, September 2022.
12. **McCarty DB**. Infant Massage as a Stress Management Technique for Parents of Extremely Preterm Infants. American Academy of Cerebral Palsy and Developmental Medicine Annual Conference – Free Paper, Las Vegas, NV, September 2022.
13. **McCarty DB**. Infant Massage as a Stress Management Technique for Parents of Extremely Preterm Infants. Presented at the Gravens Developmental Care Conference. Clearwater Beach, FL, March 2022.
14. Blazek K, Cunningham C,* Dragotta K,* **McCarty DB**. Implementation of a Neonatal Therapy Program: Before and After. Presented at the APTA NC Annual Conference. High Point, NC. October 2022.
15. **McCarty DB**, Khurana S, Brown S, Dusing S. Practical Approaches to Implementing Neonatal Physical Therapy Interventions: Using the Evidence to Establish Best-Practice. Presented at the APTA Combined Sections Meeting, Virtual, February 2021.
16. **McCarty D**. TEMPO: A feasibility study of a therapist-led program for parents of extremely preterm infants. Presented at the Gravens Developmental Care Conference, March 2021.
17. *Hite A, Brown A, Boynton M, **McCarty D**. Neonatal Cranial Molding and Positioning Changes Related to Respiratory Device. University of North Carolina at Chapel Hill, Department of Allied Health Sciences, Interprofessional Education Research Fair, April 2021.
18. Flygt L, Hooper S, Kuban K, Joseph R, **McCarty D**, Yi J, Fry R, O’Shea TM. Geographic Variation in Neurodevelopmental Outcomes in Children Born Extremely Preterm. Presented at the Pediatrics Annual Conference, October 2021.
19. *Clary E and **McCarty DB**. Collaborative Eye Exams to Protect the Preemie. Presented at the Academy of Pediatric Physical Therapy Conference, Virtual, November 2021.
20. **McCarty DB** and Blazek K. From Minimal Presence to Robust Research and Fellowship: A Case Study in NICU Program Development. Presented at the APTA Academy of Pediatric Physical Therapy Annual Conference, Virtual, November 2020.
21. **McCarty DB**. Dolichocephaly: Prevention, Management, and Treatment in the NICU and Beyond. Presented at the APTA Academy of Pediatric Physical Therapy Annual Conference, Virtual, November 2020.
22. *McIntosh J, Dunn B, Ray L, Gupta J, Faldowski R, **McCarty D**. Prevalence of Implicit Bias in Practicing Physical Therapists. Presented at the APTA Combined Sections Meeting. Washington, DC, 2019.
23. *McIntosh J, Dunn B, Ray L, Gupta J, Faldowski R, **McCarty D**. Prevalence of Implicit Bias in Practicing Physical Therapists. North Carolina Physical Therapy Association Fall Conference – Poster Presentation, Greensboro, NC, 2018.
24. **McCarty DB** and Ray L. Implicit Bias: Everybody has it! Presented at the APTA Combined Sections Meeting. New Orleans, LA, 2018.
25. Lardinois KL, Gosselin D, **McCarty D**, Ollendick K, Covington K. A Collaborative Model of Integrated Clinical Education in Physical Therapist Education: Application

- to the Pediatric Essential Core Competency of Family-centered Care. Presented at the APTA Education Leadership Conference, Columbus, OH, 2017.
26. **McCarty DB.** Neonatal Therapists' Perspectives About Caring for Infants with Cranial Molding Deformity: An Overview of Current Status and Best Practice. Presented at the APTA Academy of Pediatric Physical Therapy Annual Conference. Cincinnati, OH, 2017.
 27. **McCarty DB** and Ray L. Implicit Bias: Everybody has it! Presented at the North Carolina Physical Therapy Association Fall Conference. Winston-Salem, NC, 2017.
 28. **McCarty DB** and O'Donnell S. Round is Good: Cranial Molding Risks, Interventions and Motor Outcomes. Presented at the APTA Combined Sections Meeting. San Antonio, TX, 2017.
 29. Johnston L and **McCarty D.** Mock Patient Case Examination (MPCE) as Predictor of Student Performance During Clinical Rotations. Presented at the APTA Combined Sections Meeting. Anaheim, CA, 2016.
 30. **McCarty DB.** And the Beat Goes On...Physical Therapy Management of the Infant with Congenital Heart Disease. Presented at the APTA Section on Pediatrics Annual Conference. St. Louis, MO, 2014.
 31. **McCarty D,** Edelschick J, Case L. PT Intervention to Address Impairments Related to Posterior Fossa Syndrome Development in a 15 Year-old Male. Presented at the APTA Combined Sections Meeting. San Diego, CA, 2013.
 32. **McCarty DB** and Peat J. Early Intervention Considerations for the NICU Graduate. Presented at the North Carolina Physical Therapy Association Fall Conference. Asheville, NC, 2013.

Other

1. **McCarty DB.** Maternal Presence in the Neonatal Intensive Care Unit: Understanding Unique Challenges and Assets at the Intersections of Race, Socioeconomic Status, and Geography. University of Southern California, Motor Development Lab, Summer 2023.
2. **McCarty D,** *Cunningham C. Commentary on "The General Movements Motor Optimality Score in High-Risk Infants: A Systematic Scoping Review". *Pediatr Phys Ther.* 2023;35(1):27. doi:10.1097/PEP.0000000000000984.
3. *Dragotta K and **McCarty DB.** Commentary on "Reliability of Using a Smartphone Application to Objectify Skull Deformation." *Pediatr Phys Ther.* 2022;34(4):471. doi:10.1097/PEP.0000000000000962.
4. **McCarty DB** and Blazek K. Commentary on "Physical Therapy Dosing: Frequency and Type of Intervention in Pediatric Post-Acute Hospital Care." *Pediatric Physical Therapy.* Jan 2017; 29(1): 54.
5. **McCarty DB.** Therapist Education and Massage for Parent-Infant Outcomes. Virginia Commonwealth University, Motor Development Lab, Fall 2020.

TEACHING ACTIVITIES

2021-present	Course Director PHYT 750: Psychosocial Aspects of Disease and Disability (1 Cr) UNC Chapel Hill, Doctor of Physical Therapy Program 31-33 graduate students
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2017-present	PHYT 754: Independent Research Experience (1-2 Cr) UNC Chapel Hill, Doctor of Physical Therapy Program 2-4 graduate students
2016-present	PHYT 880: Child and Family Assessment (online, 3 Cr) UNC Chapel Hill, Doctor of Physical Therapy Program 5-10 graduate students
2016-2019	PHYT 701: Human Movement and Motor Development Across the Lifespan (3 Cr) UNC Chapel Hill, Doctor of Physical Therapy Program 31-33 graduate students

Capstone Advisor

2017-present	PHYT 854: Educational Program Capstone Project (3 Cr) UNC Chapel Hill, Doctor of Physical Therapy Program Graduate Students <ul style="list-style-type: none"> 1. Mauger, Natasha. "Feasibility of Use of a Portable Force Plate to Measure Center of Pressure in Preterm Infants at Term Equivalent Age." 2025 2. Bradford, Emma. "A Parent's Guide to Infant Massage." 2025 3. Baxter, K. "An Introduction to Non-Verbal Communication for PTs." 2024 4. Larsson, A. "Use of Trauma Informed Care in the Pediatric Acute Care Environment to Minimize Pediatric Medical Traumatic Stress Incidence." 2024 5. Bosserman, J. Postural Control Measurements to Predict Future Motor Impairments in Preterm Infants" 2023. 6. Kelkar S. Predictors of Cranial Molding Deformities in Preterm Infants" 2023. 7. DiBuono R. "Review of Pediatric Orthopedic Conditions" 2023. 8. Silver, R. "Salivary Cortisol Levels Pre and Post Maternally-Administered Infant Massage in Preterm Infants" 2022. 9. McCarthy, Marjorie. "Treating and Preventing Common Postpartum Musculoskeletal Injuries: A Biomechanical Approach to Moving with your Baby" 2022. 10. Sierra-Arevalo, L. "Spanish Translation and Cultural Adaptation of Therapist Education 11. and Massage for Parent-Infant Outcomes (TEMPO) Parent Education Materials" 2021. 12. Caldwell, AC. "Technology-Based Educational Materials for Spanish Speakers" 2021. 13. Hite, A. "Neonatal Cranial Molding and Positioning Changes Related to Respiratory Device" 2021.
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14. Brown, A. "Neonatal Cranial Molding and Positioning Changes Related to Respiratory Device" 2021.
15. Barber, B. "Evidence-Based Care for Preventing and Treating Cranial Molding Deformities in the Neonatal Intensive Care Unit" 2020.
16. Graves, K. "A Literature Review Discussing the Value of Early Caregiver Education in the Neonatal Intensive Care Unit" 2020.
17. Lovell, C. "Hippotherapy for the Pediatric Population" 2019.
18. Carrion B. "Pediatric Standardized Assessments – An Introduction for PT Students" 2018.
19. Dunn B. "The Prevalence of Implicit Biases in Practicing Physical Therapists and Strategies for Improvement" 2018.
20. Kalisz M. **"A Summary of Orthotics for the Pediatric Patient."** 2018.
21. McIntosh J. "Addressing the Blind Spots: Strategies to Address and Combat Implicit Biases." 2018.
22. Smith, C. "Techniques to Improve Respiratory Function in Patients with Neuromotor Delay" 2017.
23. Lynch, E. "Cranial Molding Deformity: Evidence for Prevention and Treatment in the NICU " 2017.

Capstone Committee Member

PHYT 854 – Educational Program Capstone Project (3 Cr)

UNC Chapel Hill, Doctor of Physical Therapy Program

2016-present

Graduate Students

1. Tompkins, J. "Postural Control Assessment of the Infant and Toddler: Increasing Outcome Measurement Tool Use" 2020.
2. Earnhardt, R. "Prevention and Early Intervention for Torticollis and Plagiocephaly for At-Risk Infants" 2019.
3. Bixby E. "Encouraging Safe Activity for Children with a Bleeding Disorder" 2018.
4. Visser, B. "Assessing the Need For and Effectiveness of a Presentation on Pediatric Equipment in Doctor of Physical Therapy Students" 2017.
5. Osmon, T. "Considerations to Guide Clinical Decision Making in the Management of Amputees in Acute Care: A Pre-Clinical Learning Module for DPT Students" 2017.
6. Parker, C. "Efficacy of the EEI and RPE in Determining the Need for More Supportive Assistive Device in the School Setting" 2016.
7. Viltrakis, C. "Prevention and Reduction of Childhood Idiopathic Toe Walking (ITW)" 2016.
8. Walsh, K. "NICU Graduate Informational Pamphlets" 2016.

Thesis Co-Advisor

- 2022-2023 1. Shuman, A. Evaluating the Accuracy of Electronic Health Record Documentation of Parental Presence: A Data Validation and Quality Improvement Analysis.
Gillings School of Global Public Health, UNC Chapel Hill
1 undergraduate honors student

2023-present **Module Instructor**

PHYT 822: Advanced Patient Management II, Pediatrics
UNC Chapel Hill, Doctor of Physical Therapy Program
30+ graduate students

2016-2019 PHYT 769: Clinical Education Seminar III
UNC Chapel Hill, Doctor of Physical Therapy Program
30+ graduate students

2016-2019 PHYT 765: Clinical Education Seminar II
UNC Chapel Hill, Doctor of Physical Therapy Program
30+ graduate students

2017-2018 AHSC 864: Developmental Disabilities Across the Lifespan II
UNC Chapel Hill, Carolina Institute for Developmental Disabilities
30 graduate students

Teaching Presentations

2020-present “Prenatal and Neonatal Development”
PHYT 701: Motor Development and Human Movement Across the Lifespan
UNC Chapel Hill, Doctor of Physical Therapy Program
30+ graduate students

2016-present “Range of Motion and Strength Testing in Pediatric Populations”
PHYT 720: Introduction to Physical Therapy Intervention
UNC Chapel Hill, Doctor of Physical Therapy Program
30+ graduate students

2016-present “Congenital Cardiac Conditions”
PHYT 710: Cardiopulmonary and Other Systems: Physical Therapy Intervention
UNC Chapel Hill, Doctor of Physical Therapy Program
30+ graduate students

2016-present “Pediatric Pulmonary Conditions”
PHYT 710: Cardiopulmonary and Other Systems: Physical Therapy Intervention
UNC Chapel Hill, Doctor of Physical Therapy Program

	30+ graduate students
2011-2021	<p>“Congenital Heart Defects and Pediatric Pulmonary Considerations”</p> <p>PT 623: Cardiopulmonary Patient Management</p> <p>Duke University, Doctor of Physical Therapy Program</p> <p>80-100 graduate students</p>
2018	<p>“Interdisciplinary Case Student in Early Intervention”</p> <p>OCCT 756: Therapeutic Processes I</p> <p>UNC Chapel Hill, Occupational Therapy Program</p> <p>24 graduate students</p>
2017	<p>“Physical Therapy Management of Myelomeningocele”</p> <p>PHYT 785: Neuromuscular Physical Therapy Intervention II</p> <p>UNC Chapel Hill, Doctor of Physical Therapy Program</p> <p>30 graduate students</p>
2016-2017	<p>“Childhood Motor Skills”</p> <p>SPHS 806: Communication Assessment and Intervention with Children Birth to Five,</p> <p>UNC Chapel Hill, Speech Language Pathology Therapy Program</p> <p>20-30 graduate students</p>
2014-2015	<p>“NICU Case Studies”</p> <p>PHYT 701: Motor Development Across the Lifespan</p> <p>UNC Chapel Hill, Doctor of Physical Therapy Program</p> <p>30 graduate students</p>
2011-2014	<p>“Pediatric Brain Tumors”</p> <p>PT 312 – Movement Science II/Motor Control</p> <p>Duke University, Doctor of Physical Therapy Program</p> <p>70 graduate students</p>
2011	<p>“Residency Programs”</p> <p>PHYT 785: Seminar in Physical Therapy</p> <p>University of South Carolina, Doctor of Physical Therapy Program</p> <p>25 graduate students and faculty</p>
2011	<p>“Uncommon Pediatric Diagnoses”</p> <p>PT 504: Pediatric Elective</p> <p>Duke University, Doctor of Physical Therapy Program</p> <p>12 graduate students</p>
2010	<p>“Typical Childhood Developmental Milestones”</p> <p>PT 304: Human Development</p> <p>Duke University, Doctor of Physical Therapy Program</p>

70 graduate students

Grand Rounds

Outside UNC

- 2015 “ACAPT Clinical Education Summit Recommendations”
Physical and Occupational Therapy Grand Rounds, Duke University
Hospital
150+ clinicians, graduate students, faculty
- 2011 “Posterior Fossa Syndrome Pediatric Case Study”
Physical and Occupational Therapy Grand Rounds, Duke University
Hospital
150+ clinicians, graduate students, faculty

Inside UNC

- 2024 “Feasibility Research in Physical Therapy: What it is and Why it Matters.”
UNC Chapel Hill, Doctor of Physical Therapy Program Grand Rounds
60+ graduate students, clinicians, faculty

Continuing Education Lecture/Workshops

Outside UNC

- Spring 2020 Panelist, Elon University, DPT610 Human Motor Development
- April 2018 Presenter, Implicit Bias and Implications for the Rehabilitation
Professionals. WakeMed Therapy Departmental In-Service
- Spring 2017 Panelist, Elon University, Residency Virtual Roundtable
- Spring 2016 Panelist, Elon University, Residency Virtual Roundtable
- Inside UNC*
- Spring 2025 Presenter, “Cranial Molding Measures.” UNC Center for Rehabilitation Care
Pediatric Therapy In-Service
- Spring 2024 Presenter, “Infant Massage: Techniques, Indications, and Benefits for Infants
and Parents. UNC Center for Rehabilitation Care, Pediatric Therapy In-
Service
- Fall 2024 Presenter, “Research Updates.” UNC Health Neonatal Therapy Committee
- Fall 2024 Panelist, UNC Gillings School of Global Public Health, MHCH 801
Doctoral Research Seminar
- May 2018 Co-Presenter, Implicit Bias: Everybody has it! Presented at the University of
North Carolina at Chapel Hill, Department of Health Sciences, Clinical
Preceptor Appreciation Event

Spring 2018	Panelist, UNC Alpha Epsilon Delta, Pre-Health Honor Society
Spring 2016	Panelist, UNC Alpha Epsilon Delta, Pre-Health Honor Society
Spring 2015	Panelist, UNC Alpha Epsilon Delta, Pre-Health Honor Society
	Clinical Teaching
2009-2015	Duke Hospital, Physical and Occupational Therapy, Pediatric Acute Care and Neonatal Intensive Care Unit. Learners: Undergraduate students, Graduate DPT students, PT residents and fellows
2018-present	UNC Health, Rehabilitation Services, Newborn Critical Care Center
	Mentorship
2024-present	Jennifer Bosserman, PT, DPT, Neonatal PT Fellow, UNC Health Natasha Mauger, 3 rd year DPT Student, Research Assistant
2023-present	Claire Boe, PT, DPT, PCS, Former Neonatal PT Fellow and Current PT I at UNC Health Newborn Critical Care Center
2022-present	Catherine Cunningham, PT, DPT, PCS, Former Neonatal PT Fellow and Current PT I at UNC Health Newborn Critical Care Center
2022-2024	Nicollette DeLaine, PT, DPT, PCS, Senior Physical Therapist, UNC Health Newborn Critical Care Center
2021-2022	Kristen LeBlond, PT, DPT, PCS, Former Neonatal PT Fellow, UNC Health
2020-2022	Erika Clary, PT, DPT, PCS, Former Neonatal PT Fellow, UNC Health
2018-2019	Kerry Blazek, PT, DPT, PCS, Senior Physical Therapist, UNC Health Newborn Critical Care Center
	Research Teaching
2024-2025	Natasha Mauger, 3 rd year DPT student
2023-present	Michelle Lussier, PT, DPT, PCS, Previous UNC Pediatric PT Resident
2023-2024	Anna Larsson and Kimmie Baxter, 3 rd year DPT students
2022-2023	Jennifer Bosserman and Sonia Kelkar, 3 rd year DPT students
2021-2022	Rachel Silver, 3 rd year DPT student
2020-2021	

2017-2018 Leslie Sierra-Arevalo, Anna-Clara Caldwell, Ashley Hite, Anna Brown, 3rd year DPT students

Bria Dunn and Jenelle McIntosh, 3rd year DPT students

GRANTS

Active Grants

6/1/25-5/31/27 Role: PI
 Title: Immersive Physical Therapy in the NICU: Comparing Delivery Models to Improve Infant and Parent Outcomes
 Source: Foundation for Physical Therapy Research
 Amount: \$100,000, 20%
 The purpose of this study is to examine an Immersive PT model to increase PT dosage and parent education within the NICU.

Completed grants

1/1/24-12/31/24 Role: Primary Faculty
 Title: Research Infrastructure Grant
 Source: UNC School of Medicine
 Amount: \$10,284
 This grant funded the purchase of a portable force plate to be used for infant postural control analysis in the Neonatal Intensive Care Unit and within the Division of Physical Therapy for adult postural control analysis.

9/1/23-8/31/24 Role: Doctoral Student
 Advisor: Meghan Shanahan, PhD, MPH
 Title: Maternal Presence in the Neonatal Intensive Care Unit: Identifying Mothers at Risk to Support Infant Development
 Source: Foundation for Physical Therapy, Promotion of Doctoral Studies (PODS II)
 Amount: \$10,000

8/1/22-7/31/23 Role: Doctoral Student
 Advisor: Meghan Shanahan, PhD, MPH
 Title: Contextual factors impacting parent presence in the NICU: Enhancing preterm infant motor development through parental support.
 Source: PEO International, PEO Scholar Award
 Amount: \$20,000

- 7/1/19-2/28/22 Role: PI/K Scholar, 75%
Primary Mentor: Michael O'Shea, MD, MPH
Title: TEMPO: A feasibility study of a physical therapist-led program for parents of extremely preterm infants
Source: NIH/NCCIH, KL2 Supplement 3KL2TR002490-02S1
Amount: \$ 256,731
The goal of this project was to assess the feasibility and acceptability of TEMPO for parents of extremely preterm infants born in the Neonatal Critical Care Center (NCCC) at UNC Children's Hospital.
- 1/1/21-12/31/22 Role: Consultant, Dusing (PI)
Title: Proposal to evaluate the Efficacy of STEPS_H2 - Supporting Transitions by Enhancing Parent Support from Hospital to Home.
Source: Academy of Pediatric Physical Therapy, Planning Grant
Amount: \$30,000
The focus of this planning grant was to: 1) establish a multi-center/multi-national research network, and 2) plan a clinical trial investigating the effects of a well-defined intervention designed to provide developmental support in the NICU and during the transition to home. I provided expertise in NICU-based interventions.
- 9/1/21-8/31/22 Role: Doctoral Student
Advisor: Meghan Shanahan, PhD, MPH
Title: Contextual factors impacting parent presence in the NICU: Enhancing preterm infant motor development through parental support.
Source: Foundation for Physical Therapy, Promotion of Doctoral Studies (PODS I)
Amount: \$7,500
- 2016-2017 Role: Consultant (Johnston, PI)
Title: An Online Training Program for Clinical Preceptors in North Carolina
Source: North Carolina AHEC, AHEC Innovation Award
Amount: \$11,000
This grant provided a structured approach to building clinical preceptor training opportunities in an online environment. I supported curriculum development in my role as Director of Clinical Education.
- 2015-2019 Role: Discipline Coordinator, 8% (Roush, PI)
Title: NC Leadership Education in Neurodevelopmental and Related Disabilities (LEND) Grant
Source: HRSA's Maternal and Child Health Bureau
Amount: \$475,000
The national network of LEND programs aim to improve the health of infants, children, and adolescents with disabilities by preparing graduate

students from various disciplines, self-advocates, and family advocates to assume leadership roles. I was the PT mentor providing clinical and academic teaching for this interdisciplinary program

2015-2016 Role: PI, 5%
 Title: Use of a Midliner Positioning System for the Prevention of Cranial Molding Deformities in Preterm Infants
 Source: Turtle Products LLC., Industry Grant
 Amount: \$50,000
 The purpose of this study was to determine the effectiveness of using a midliner positioning system to prevent dolichocephaly in preterm infants in the NICU.

**Unfunded- grants
 written and
 submitted but not
 funded**

2024-2025 Role: Trainee, 10%
 Title: Clinical Trialist Training Program
 Source: UNC School of Medicine, Clinical Research Support Office
 Amount: \$10,000

2024-2025 Role: Co-I, no effort (Dusing and Prosser, PIs)
 Title: Babies Move and Play research network to advance pediatric precision rehabilitation
 Source: C-PROGRESS (National Pediatric Rehabilitation Resource Center)
 Amount: \$50,000

2023-2028 Role: Co-Investigator, 2.5-5% (Cassidy PI)
 Title: MIGHT-E: Monitoring Infant Growth, Health, and Neurodevelopment Following Gestational Diabetes Exposure
 Source: NIH/NICHD R01, 1R01HD109133-01
 Amount: \$3,546,027

2022-2027 Role: Site PI, 10% (Letzkus PI)
 Title: The impact of mother-preterm infant dyadic relationships on physical and mental health from the hospital to home
 NIH/NICHD R01
 Amount: \$469,462 (UNC Sub-award)

2022-2025 Role: PI/K Scholar, 75%
 Primary Mentor: Matthew Laughon, MD, MPH

	Project Title: Therapist Education and Massage for Parent-Infant Outcomes: A Pilot Randomized Controlled Trial Source: NIH/NCCIH K23 Career Development Award, 1K23AT011775 Amount: \$389,054
2021-2023	Role: Co-Site PI, no effort (PI Juul) Title: Yoga in the NICU (YIN) for Parents: a planning and feasibility study Source: NIH/NCCIH R34 Amount: \$3500 (Subaward)
2020-2021	Role: PI, no effort Title: Elevating Care through Infant Motor Assessment: Empowering Therapists and Families of Extremely Preterm Infants Source: UNC Early Career Development Grant Amount: \$10,000

CLINICAL TRIALS

2025-2027	Immersive Physical Therapy in the Neonatal Intensive Care Unit Foundation for Physical Therapy Research Role: PI Amount: \$100,000 20% FTE
2019-2022	Therapist Education and Massage for Parent-Infant Outcomes (TEMPO) NIH/NCCIH, KL2 Supplement 3KL2TR002490-02S1 Role: PI/K Scholar Amount: \$256,731 75% FTE
2015-2016	Use of a Midliner Positioning System for the Prevention of Cranial Molding Deformities in Preterm Infants Source: Turtle Products LLC., Industry Grant Amount: \$50,000 Role: PI 5% FTE

PROFESSIONAL SERVICE

Service to University of North Carolina

Department of Health Sciences, UNC School of Medicine

2022	Advisory Group Member, Association for Professional Women in Medical Sciences
2021	Member, School of Medicine Social Justice Task Force, Curriculum Development
2015-2019	Member, Clinical Education Committee
2017	Member, Administrative Staff Search Committee

Division of Physical Therapy, UNC School of Medicine

2024-present	Coordinator, DPT Grand Rounds Presentations
2020-present	Member, Neonatal PT Fellowship Program Admissions Committee
2016-present	Chair, Pediatric PT Residency Program Admissions Committee
2015-present	Faculty Advisor, DPT students, pediatric residents, and neonatal fellows
2024	Member, Open Rank Research Professor Faculty Search Committee
2022	Member, Clinical Assistant Professor Faculty Search Committee
2015-2019	Member, Promotions Committee
2015-2019	Member, Program Evaluation Committee
2017	Member, Research Assistant Professor Faculty Search Committee
2016	Faculty Mentor, Guatemala Service Learning Trip

Service to Profession

2025-present	Co-Chair, Neonatal Special Interest Group, APTA Academy of Pediatric Physical Therapy
2024-present	Nominating Committee Member (Board of Directors), APTA Academy of Pediatric Physical Therapy
2023-present	Grant Reviewer, APTA Academy of Pediatric Physical Therapy
2022-present	Vice Chair, APTA NC Pediatric Special Interest Group
2019-2020	Nominating Committee Chair (Board of Directors), APTA Academy of Physical Therapy Education

2017-2020	Nominating Committee Member (Board of Directors), APTA Academy of Physical Therapy Education
2017-2019	NC State Representative, APTA Academy of Pediatric Physical Therapy
2015-2019	CSM Booth Volunteer, APTA Academy of Pediatric Physical Therapy
2015-2019	Member, Carolina Consortium of Clinical Education
2017-2019	Clinical Excellence Task Force, Carolina Consortium of Clinical Education
2016-2019	Accreditation Committee Member, American Board of Physical Therapy Residency and Fellowship Education (ABPTRFE)
2017	Annual Conference Proposal Reviewer, APTA Academy of Pediatric Physical Therapy
2010	Higher Education Task Force Member, APTA Academy of Pediatric Physical Therapy
2025-present	Editorial Board Member, <i>Physical and Occupational Therapy in Pediatrics</i>
Ongoing	Reviewer for: <ul style="list-style-type: none"> • <i>Child: Care, Health, Development</i> • <i>Journal of Public Health Research</i> • <i>Early Human Development</i> • <i>Journal of Multidisciplinary Healthcare</i> • <i>Pediatric Health, Medicine and Therapeutics</i> • <i>Journal of Integrative and Complementary Medicine</i> • <i>Physical and Occupational Therapy in Pediatrics</i> • <i>Pediatric Physical Therapy</i> • <i>Journal of Interprofessional Behavior and Practice</i> • <i>Topics in Stroke Rehabilitation</i> • <i>Physiotherapy Theory and Practice</i> • <i>Pediatric Health, Medicine, and Therapeutics</i>

Service to Community

2022-present	Course Instructor, Pregnancy Education Program, Pregnancy Support Services
2021-present	Worship Vocalist, Blacknall Memorial Presbyterian Church
2014-present	Dance Instructor, Blacknall Memorial Presbyterian Church

2017-2019	Sunday School Leadership, Blacknall Memorial Presbyterian Church
2017, 2019	Volunteer, “Helping Kids with Hemiplegia” Constraint Induced Movement Camp, UNC Health
2018	Developmental Fair, Newborn Critical Care Center, UNC Hospitals
2016-2018	Development Committee Member, Family Support Network™ of the Triangle
2013-2015	Volunteer, Interfaith Hospitality Network, Durham, NC
2013-2015	Developmental Care Coach, Duke Intensive Care Nursery
2012-2015	Member, Patient and Family Centered Care Committee, Duke Intensive Care Nursery
2012-2015	Member, Developmental Care Committee, Duke Intensive Care Nursery
2010-2011	Presenter, Duke Camp Med, Duke Hospital/Duke Health Collaboration

Professional Memberships

2008-present	Member, American Physical Therapy Association (APTA) <ul style="list-style-type: none"> • North Carolina Chapter
2023-present	Member, Academy of Physical Therapy Research, APTA
2008-present	Member, Academy of Pediatric Physical Therapy, APTA <ul style="list-style-type: none"> • Research Committee • Academic/Clinical Education Special Interest Group • Residency/Fellowship Special Interest Group • Neonatology Special Interest Group
2015-present	Academy of Physical Therapy Education, APTA <ul style="list-style-type: none"> • Residency/Fellowship Special Interest Group • Clinical Education Special Interest Group
2015-2019	Member, Neurodevelopmental Treatment Association
2014-2020	Member, American Council of Academic Physical Therapy
2015-2019	Member, National Consortium for Clinical Education
2015-2019	Member, Carolina Clinical Education Consortium

CONTINUING EDUCATION ATTENDED

- International Congress on Early Sensorimotor Development and NeuroDevelopmental Disorders. Tours, France. July 2025.

- European Academy of Childhood-onset Disability and International Alliance of Academies of Childhood Disability Conference. Heidelberg, Germany. June 2025.
- NeoNatal Neurobehavioral Scales-II (NNNS-II) Newborn Assessment – Examiner Certification 2023, Trainer Certification 2025.
- APTA Combined Sections Meeting (CSM) – Houston, TX (2025), Boston, MA (2024), San Diego, CA (2023), Virtual (2021), Denver, CO (2020), Washington, DC (2019), New Orleans, LA (2018), San Antonio, TX (2017), Anaheim, CA (2016), San Diego, CA (2013), New Orleans, LA (2011), Nashville, TN (2007)
- APTA Pediatrics Annual Conference – Providence, RI, October 2024.
- Research Summit VI, Academy of Pediatric Physical Therapy, Alexandria, VA – October 2023.
- Certification in Prechtl’s General Movements Assessments (Advanced), Los Angeles, CA, April 2022.
- Academy of Cerebral Palsy and Developmental Medicine Annual Conference – Las Vegas, NV, September 2022.
- Gravens Developmental Care Conference, Clearwater, FL – March 2022, March 2020
- Research Summit V, Academy of Pediatric Physical Therapy, Alexandria, VA – October 2019

CURRENT TEACHING RESPONSIBILITIES IN THE ENTRY-LEVEL PROGRAM FOR YEAR OF ACADEMIC PROGRAM REVIEW

Fall

Course Director

PHYT 750: Psychosocial Aspects of Disease and Disability (2 Cr)

UNC Chapel Hill, Doctor of Physical Therapy Program

Course Instructor

PHYT 754: Independent Research Experience (1-2 Cr)

UNC Chapel Hill, Doctor of Physical Therapy Program

Course Director

PHYT 880: Child and Family Assessment (online, 3 Cr)

UNC Chapel Hill, Doctor of Physical Therapy Program

Presenter

PHYT 720: Introduction to Physical Therapy Intervention

UNC Chapel Hill, Doctor of Physical Therapy Program

30+ graduate students

Spring

Course Instructor

PHYT 754: Independent Research Experience (1-2 Cr)

UNC Chapel Hill, Doctor of Physical Therapy Program

Module Instructor

PHYT 822: Advanced Patient Management II, Pediatrics
UNC Chapel Hill, Doctor of Physical Therapy Program

Presenter

PHYT 701: Motor Development and Human Movement Across the Lifespan
UNC Chapel Hill, Doctor of Physical Therapy Program
30+ graduate students

Summer

Presenter

PHYT 710: Cardiopulmonary and Other Systems: Physical Therapy Intervention
UNC Chapel Hill, Doctor of Physical Therapy Program