

## CURRICULUM VITAE

**Regina Tambellini Harbourne**  
**Duquesne University**

### **Education:**

Doctor of Philosophy  
University of Nebraska at Lincoln  
Lincoln, Nebraska  
Developmental Psychology  
December, 2009

Master of Science  
University of North Carolina  
Chapel Hill, NC  
Physical Therapy  
May, 1988

Bachelor of Science  
Medical College of Virginia  
Richmond, VA  
Physical Therapy  
June, 1977

Mary Washington College  
Fredericksburg, VA  
*Physical Therapy prerequisites*  
May, 1974

### **Licensure Information:**

Pennsylvania PT024346

### **Certifications (eg, ABPTS):**

Board Certification as a Pediatric Certified Specialist (emeritus)  
Original certification May 2000; re-certified 2010; requested emeritus status May 2020

NeuroDevelopmental Treatment (NDT) Certification  
August 1983

Tscharnutter Akademie for Movement Organization (TAMO) Certification  
March 1992

Tscharnutter Akademie for Movement Organization (TAMO) Instructor  
May 1999; advanced, 2006

### **Employment and Positions Held:**

Professor Emeritus  
Tenured 2020  
Duquesne University  
Rangos School of Health Sciences  
July 2023-present

Associate Professor  
Tenured 2020  
Duquesne University  
Rangos School of Health Sciences

July 2014 – July 2023

Associate Professor & Staff pediatric therapist  
Non-tenured  
Munroe Meyer Institute for Genetics and Rehabilitation  
University of Nebraska Medical Center  
Omaha, NE  
October 1986 – July 2015

Teaching Assistant  
Non-tenured  
University of North Carolina  
Chapel Hill, NC  
August 1985 – June 1986

Staff Physical Therapist  
Austin Independent School District  
Austin, TX  
August 1984 – August 1985

Chief of Physical Therapy  
Capital Area Rehabilitation Center  
Austin, TX  
July 1983 – August 1984

Staff Physical Therapist  
Capital Area Rehabilitation Center  
Austin, TX  
July 1982 – July 1983

Clinical Supervisor of Physical Therapy  
Walter E. Fernald State School for the Mentally Retarded, and the Eunice Kennedy Shriver Center  
Waltham, MA  
May 1981 – July 1982

Staff Physical Therapist  
Walter E. Fernald State School for the Mentally Retarded, and the Eunice Kennedy Shriver Center  
Waltham, MA  
August 1977 – May 1981

**Peer Reviewed Publications:**

Maia, M. G., Soker-Elimaliah, S., Jancart, K., **Harbourne, R. T.**, & Berger, S. E. (2024). Focused attention as a new sitter: How do infants balance it all?. *Infant Behavior and Development*, 74, 101926.

Kretch, K. S., Dusing, S. C., **Harbourne, R. T.**, Hsu, L. Y., Sargent, B. A., & Willett, S. L. (2024). Early Mobility and Crawling: Beliefs and Practices of Pediatric Physical Therapists in the United States. *Pediatric Physical Therapy*, 36(1), 9-17.

Kretch, K. S., Koziol, N. A., Marciniowski, E. C., Hsu, L. Y., **Harbourne, R. T.**, Lobo, M. A., ... & Dusing, S. C. (2023). Sitting Capacity and Performance in Infants with Typical Development and Infants with Motor Delay. *Physical & Occupational Therapy In Pediatrics*, 1-16.

- Babik, I., Cunha, A. B., Choi, D., Koziol, N. A., Hsu, L. Y., **Harbourne, R. T.**, ... & Lobo, M. A. (2023). Socioeconomic status and home affordances moderate effects of motor delay and intervention. *Journal of Applied Developmental Psychology*, 87, 101563.
- Babik, I., B. Cunha, A., Choi, D., Koziol, N. A., T. **Harbourne, R.**, C. Dusing, S., ... & Lobo, M. A. (2023). The Effect of START-Play Intervention on Reaching-Related Exploratory Behaviors in Children with Neuromotor Delays: A Secondary Analysis of a Randomized Controlled Trial. *Physical & Occupational Therapy In Pediatrics*, 43(3), 321-337.
- Hearn, C., Hsiao, L., Fanelli, L., & **Harbourne, R.** (2023). International Strategies for Addressing the Needs of Children with Disabilities: Comparing pediatric therapy services in Italy and the United States.
- Koziol, N. A., Kretch, K. S., **Harbourne, R. T.**, Lobo, M. A., McCoy, S. W., Molinini, R., ... & Dusing, S. C. (2023). START-Play Physical Therapy Intervention Indirectly Impacts Cognition Through Changes in Early Motor-Based Problem-Solving Skills. *Pediatric Physical Therapy*, 35(3), 293-302.
- Harbourne, R.**, Stacey Dusing. Motor Development and Motor Control. In *Physical Therapy for Children, 6<sup>th</sup> Edition*. (2023) Editors Palisano, R., Orlin, M., Schreiber, J. Elsevier Publishers.
- Kretch, K.S., Willett, S.L., Hsu, L, Sargent, B.A., **Harbourne, R.T.**, Dusing, S.C. (2022) Learn the Signs. Act Early: Updates and Implications for Physical Therapists. *Pediatric Physical Therapy*, 34(4); 440-448.
- Kretch, K. S., Marcinowski, E. C., Hsu, L. Y., Koziol, N. A., **Harbourne, R. T.**, Lobo, M. A., & Dusing, S. C. (2022). Opportunities for learning and social interaction in infant sitting: Effects of sitting support, sitting skill, and gross motor delay. *Developmental Science*, e13318.
- Dusing, S. C., **Harbourne, R. T.**, Hsu, L. Y., Koziol, N. A., Kretch, K., Sargent, B., ... & Vanderbilt, D. L. (2022). The SIT-PT Trial Protocol: a Dose-Matched Randomized Clinical Trial Comparing 2 Physical Therapist Interventions for Infants and Toddlers with Cerebral Palsy. *Physical Therapy*.
- Koziol, N. A., Butera, C. D., Kretch, K. S., **Harbourne, R. T.**, Lobo, M. A., McCoy, S. W., ... & Dusing, S. C. (2022). Effect of the START-Play Physical Therapy Intervention on Cognitive Skills Depends on Caregiver-Provided Learning Opportunities. *Physical & Occupational Therapy In Pediatrics*, 1-16.
- Kretch, K. S., Koziol, N. A., Marcinowski, E. C., Kane, A. E., Inamdar, K., Brown, E. D., **Harbourne, RT...** & Dusing, S. C. (2022). Infant posture and caregiver-provided cognitive opportunities in typically developing infants and infants with motor delay. *Developmental Psychobiology*, 64(1), e22233.
- Surkar, S. M., **Harbourne, R.**, Corr, B., Arpin, D., & J. Kurz, M. (2022). Exploration of a novel physical therapy protocol that uses a sensory substitution device to improve the standing postural balance of children with balance disorders. *Physiotherapy Theory and Practice*, 38(5), 637-647.
- An, M., Marcinowski, E. C., Hsu, L. Y., Stankus, J., Jancart, K. L., Lobo, M. A., ... & **Harbourne, R. T.** (2022). Object Permanence and the Relationship to Sitting Development in Infants With Motor Delays. *Pediatric Physical Therapy*, 10-1097.
- Sargent, B., **Harbourne, R.**, Moreau, N. G., Sukal-Moulton, T., Tovin, M., Cameron, J. L., ... & Heathcock, J. (2022). Research Summit V: Optimizing Transitions From Infancy to Early Adulthood in Children With Neuromotor Conditions. *Pediatric Physical Therapy*, 10-1097.
- Molinini, R. M., Koziol, N. A., Tripathi, T., **Harbourne, R. T.**, McCoy, S. W., Lobo, M. A., ... & Dusing, S. C. (2021). Measuring Early Problem-Solving in Young Children with Motor Delays: A Validation Study. *Physical & Occupational Therapy In Pediatrics*, 41(4), 390-409.

Morgan, C., Fetters, L., Adde, L., Badawi, N., Bancale, A., Boyd, R. N., **Harbourne, R** ... & Novak, I. (2021). Early Intervention for Children Aged 0 to 2 Years With or at High Risk of Cerebral Palsy: International Clinical Practice Guideline Based on Systematic Reviews. *JAMA pediatrics*.

**Harbourne, R. T.**, Dusing, S. C., Lobo, M. A., McCoy, S. W., Koziol, N. A., Hsu, L. Y., ... & Sheridan, S. M. (2021). START-Play Physical Therapy Intervention Impacts Motor and Cognitive Outcomes in Infants With Neuromotor Disorders: A Multisite Randomized Clinical Trial. *Physical therapy*, 101(2), pzaa232.

Jensen-Willett, S., Miller, K., Jackson, B., & **Harbourne, R.** (2021). The Influence of Maternal Cognitions Upon Motor Development in Infants Born Preterm: A Scoping Review. *Pediatric Physical Therapy*, 33(3), 137-147.

Stuyvenberg, C. L., Brown, S. E., Inamdar, K., Evans, M., Hsu, L. Y., Rolin, O., **Harbourne, R....** & Dusing, S. C. (2021). Targeted Physical Therapy Combined with Spasticity Management Changes Motor Development Trajectory for a 2-Year-Old with Cerebral Palsy. *Journal of Personalized Medicine*, 11(3), 163.

Molinini, R. M., Koziol, N. A., Marcinowski, E. C., Hsu, L. Y., Tripathi, T., **Harbourne, R. T.**, ... & Dusing, S. C. (2021). Early motor skills predict the developmental trajectory of problem solving in young children with motor delays. *Developmental Psychobiology*.

An, M., Nord, J., Koziol, N. A., Dusing, S. C., Kane, A. E., Lobo, M. A., ... & **Harbourne, R. T.** (2021). Developing a fidelity measure of early intervention programs for children with neuromotor disorders. *Developmental Medicine & Child Neurology*, 63(1), 97-103.

**Harbourne, R. T.** (2021). Conclusions and implications for early intervention. *Advances in Child Development and Behavior*, 60, 317-327.

Berger, S. E., **Harbourne, R. T.**, & Scher, A. (2021). *Interdisciplinary Perspectives on the Relation between Sleep and Learning in Early Development* (Vol. 60). Academic Press.

Surkar SM, Hoffman RM, **Harbourne R**, Kurz MJ. (2020). Cognitive-Motor Interference Heightens the Prefrontal Cortical Activation and Deteriorates the Task Performance in Children with Hemiplegic Cerebral Palsy. *Arch Phys Med Rehabil*. 22:S0003-9993(20)30956-4. doi: 10.1016/j.apmr.2020.08.014. Epub ahead of print. PMID: 32976843.

Molinini, R. M., Koziol, N. A., Tripathi, T., **Harbourne, R. T.**, McCoy, S. W., Lobo, M. A., ... & Dusing, S. C. (2020). Measuring Early Problem-Solving in Young Children with Motor Delays: A Validation Study. *Physical & Occupational Therapy In Pediatrics*, 1-19.

Cunha, A. B., Babik, I., Koziol, N. A., Hsu, L. Y., Nord, J., **Harbourne, R. T.**, ... & Lobo, M. A. (2021). A Novel Means-End Problem-Solving Assessment Tool for Early Intervention: Evaluation of Validity, Reliability, and Sensitivity. *Pediatric Physical Therapy*, 33(1), 2-9.

Surkar, S. M., **Harbourne, R.**, Corr, B., Arpin, D., & J. Kurz, M. (2020). Exploration of a novel physical therapy protocol that uses a sensory substitution device to improve the standing postural balance of children with balance disorders. *Physiotherapy Theory and Practice*, 1-11.

An, M., Dusing, S. C., **Harbourne, R. T.**, Sheridan, S. M., & START-Play Consortium. (2020). What Really Works in Intervention? Using Fidelity Measures to Support Optimal Outcomes. *Physical Therapy*, 100(5), 757-765.

Cunha, A. B., Babik, I., **Harbourne, R.**, Cochran, N. J., Stankus, J., Szucs, K., & Lobo, M. A. (2020). Assessing the Validity and Reliability of a New Video Goniometer App for Measuring Joint Angles in Adults and Children. *Archives of Physical Medicine and Rehabilitation*, 101(2), 275-282.

**Harbourne, R. T.**, & Berger, S. E. (2019). Embodied Cognition in Practice: Exploring Effects of a Motor-Based Problem-Solving Intervention. *Physical therapy*, 99(6), 786-796.  
Physical Therapy Journal Podcast June 30, 2019: <https://academic.oup.com/ptj/pages/podcasts>

Dusing, S. C., **Harbourne, R. T.**, Lobo, M. A., Westcott-McCoy, S., Bovaird, J. A., Kane, A. E., ... & Brown, S. E. (2019). A physical therapy intervention to advance cognitive and motor skills: a single subject study of a young child with cerebral palsy. *Pediatric Physical Therapy*, 31(4), 347-352.

Berger, S. E., **Harbourne, R. T.**, Arman, F., & Sonsini, J. (2019). Balancing act (ion): Attentional and postural control strategies predict extent of infants' perseveration in a sitting and reaching task. *Cognitive Development*, 50, 13-21.

Surkar, S. M., Hoffman, R. M., Davies, B., **Harbourne, R.**, & Kurz, M. J. (2019). Deficits in Planning Sequential Goal-Directed Action Impact Motor Execution in Children With Hemiplegic Cerebral Palsy: A Kinematic Analysis. *Journal of Motor Learning and Development*, 7(1), 122-140.

Surkar, S. M., Hoffman, R. M., Willett, S., Flegle, J., **Harbourne, R.**, & Kurz, M. J. (2018). Hand-Arm Bimanual Intensive Therapy Improves Prefrontal Cortex Activation in Children With Hemiplegic Cerebral Palsy. *Pediatric Physical Therapy*, 30(2), 93-100.

Surkar, S. M., Hoffman, R. M., Davies, B., **Harbourne, R.**, & Kurz, M. J. (2018). Impaired anticipatory vision and visuomotor coordination affects action planning and execution in children with hemiplegic cerebral palsy. *Research in Developmental Disabilities*, 80, 64-73.

**Harbourne, R. T.**, Dusing, S. C., Lobo, M. A., Westcott-McCoy, S., Bovaird, J., Sheridan, S., ... & Marcinowski, E. C. (2018). Sitting Together and Reaching to Play (START-Play): Protocol for a Multisite Randomized Controlled Efficacy Trial on Intervention for Infants With Neuromotor Disorders. *Physical Therapy*; 98(6), 494-502.

Berger, S. E., **Harbourne, R. T.**, & Horger, M. N. (2018). Cognition–Action Trade-Offs Reflect Organization of Attention in Infancy. *Advances in Child Development and Behavior*.

Berger, S. E., **Harbourne, R. T.**, & Gualpa Lliguichuzhca, C. L. (2018). Sit Still and Pay Attention! Trunk Movement and Attentional Resources in Infants with Typical and Delayed Development. *Physical & Occupational Therapy in Pediatrics*, 1-12.

Surkar, S. M., Hoffman, R. M., **Harbourne, R.**, & Kurz, M. J. (2018). Neural activation within the prefrontal cortices during the goal-directed motor actions of children with hemiplegic cerebral palsy. *Neurophotronics*, 5(1), 011021.

Kokkoni, E., Haworth, J. L., **Harbourne, R. T.**, Stergiou, N., & Kyvelidou, A. (2017). Infant sitting postural control appears robust across changes in surface context. *Somatosensory & motor research*, 34(4), 265-272.

Kyvelidou, A., **Harbourne, R. T.**, Haworth, J., Schmid, K. K., & Stergiou, N. (2017). Children with moderate to severe cerebral palsy may not benefit from stochastic vibration when developing independent sitting. *Developmental neurorehabilitation*, 1-9.

Novak, I., Morgan, C., Adde, L., Blackman, J., Boyd, R. N., Brunstrom-Hernandez, J., ...**Harbourne, R.**, & de Vries, L. S. (2017). Early, accurate diagnosis and early intervention in cerebral palsy: advances in diagnosis and treatment. *JAMA pediatrics*, 171(9), 897-907.

Morgan, C., Darrach, J., Gordon, A., **Harbourne, R.**, Spittle, A., Johnson, R., Fethers, L. (2016). Effectiveness of motor interventions in infants with cerebral palsy – systematic review. *Developmental Medicine and Child Neurology*, DOI: 10.1111/dmcn.13105, online.

Ryalls, B. O., **Harbourne, R. T.**, Kelly-Vance, L., Wickstrom, J., Stergiou, N., & Kyvelidou, A. (2016). A Perceptual Motor Intervention Improves Play Behavior In Children With Moderate To Severe Cerebral Palsy. *Frontiers in Psychology, Developmental Psychology, online*.

**Harbourne, R.**, Stacey Dusing. Motor Development and Motor Control. In *Physical Therapy for Children, 5<sup>th</sup> Edition*. (2016) *Editors* Palisano, R., Orlin, M., Schreiber, J. Elsevier Publishers.

**Harbourne, R.**, Rahlin, M. Therapeutic Approaches. In *Physical Therapy for Children with Cerebral Palsy: An Evidence-Based Approach*. (2016) *Editor* Mary Rahlin. Slack Publishers.

**Harbourne, R.**, & Kamm, K. (2015). Upper extremity function: What's posture got to do with it? *Journal of Hand Therapy, 28*(2), 106-113.

Reelfs, H., **Harbourne, R. T.**, Healey, K., Zabad, R., & Kurz, M. J. (2015). Neurorehabilitation Strategies Focusing on Ankle Control Improve Mobility and Posture in Persons With Multiple Sclerosis. *J Neuro PT*, epublished Aug, 2015.

Surkar, S., Edelbrock, C., Stergiou, N., Berger, S., **Harbourne, R.** (2015). Sitting Postural Control Affects the Development of Focused Attention in Children with Cerebral Palsy, *Pediatric Physical Therapy, 27*,16-22.

**Harbourne, R.**, Becker, K., Arpin, D., Wilson, T., Kurz, M. (2014) Improving the motor skill of children with posterior fossa syndrome: a case series, *Pediatric Physical Therapy, 26*, 462-468.

Kurz, M. J., Arpin, D. J., Davies, B. L., **Harbourne, R.** (2013). The stochastic component of the postural sway variability is higher in children with balance impairments, *Annals of Biomedical Engineering, 41*(8):1703-12.

**Harbourne, R.**, Stergiou, N., Ryalls, B. (2013). Sitting and Looking: A Comparison of Stability and Visual Exploration in Infants with Typical Development and Infants with Developmental Delay, *Physical and Occupational Therapy in Pediatrics, Early Online 2013, 1-16*. PMID: 23901882

**Harbourne, R.**, Lobo, M., Karst, G. M., Galloway, J. A. C. (2013). Sit happens: Does sitting development perturb reaching development, or vice versa? *Infant Behavior and Development, 36*(3): 438-50. PMID: 23644424

Lobo, M.A., **Harbourne, R.**, Dusing, S. C., Westcott McCoy, S. (2013). Grounding physical therapy education and practice: Incorporating the concept of grounded cognition in early intervention. *Physical Therapy, 93*, 94-103. PMID: 23001524

Kyvelidou A, **Harbourne RT**, Willet SL, Stergiou N. (2013) Sitting postural control in infants with typical development, motor delay, or cerebral palsy. *Pediatric Physical Therapy 25*(1):46-51. PMID: 23288009

Haworth, J., **Harbourne, R.**, Vallabhauosoula, S., Stergiou, N. (2013). Center of pressure and the projection of the time-course of sitting skill acquisition. *Gait and Posture, 38*; 806-811.

Kyvelidou, A., **Harbourne, R.**, Willett, S., Stergiou, N. (2013) Quantification of sitting in typically developing infants and premature infants with delay or cerebral palsy. *Pediatric Physical Therapy 25*(1): 46-51.

Capoun, L., **Harbourne, R.** (2011) Commentary on "Approximate Entropy values demonstrate neuromotor control of spontaneous leg activity in infants with myelomeningocele" . *Pediatric Physical Therapy. 23*(3):248.

Deffeyes JE, **Harbourne RT**, Stuberg WA, Stergiou N. (2011) Sensory information utilization and time delays characterize motor developmental pathology in infant sitting postural control. *Motor Control*, 15, 302-17. PMID: 21628731

Deffeyes JE, **Harbourne RT**, Stuberg WA, Stergiou N. (2011) Approximate entropy used to assess sitting postural sway of infants with developmental delay. *Infant Behav Dev*, 34(1):81-99. PMID: 21129778

Cignetti F, Kyvelidou A, **Harbourne RT**, Stergiou N. (2011). Anterior-posterior and medial-lateral control of sway in infants during sitting acquisition does not become adult-like. *Gait Posture*. 33(1):88-92. PMID: 21050764

**Harbourne, RT**, Willett, S, Kyvelidou A, Deffeyes J, Stergiou N. (2010) A comparison of interventions for children with cerebral palsy to improve sitting postural control. *Physical Therapy*, 90 (12) 1881-1898. PMID: 20966212

Dusing, SC, **Harbourne, RT**. (2010) Variability in postural control during infancy: Implications for development, assessment, and intervention. *Physical Therapy*,90(12), 1838-1849. PMID: 20966208

Kyvelidou A, **Harbourne RT**, Shostrom VK, Stergiou N. (2010). Reliability of center of pressure measures for assessing the development of sitting postural control in infants with or at risk of cerebral palsy. *Arch Phys Med Rehabil*. 91(10):1593-601.

Kyvelidou, A, **Harbourne, RT**, Stergiou, N. (2010) Severity and characteristics of developmental delay can be assessed using variability measures of sitting posture. *Pediatric Physical Therapy*, 22(3), 259-266.

Deffeyes, JE, **Harbourne, RT**, DeJong, SL, Kyvelidou, A, Stuberg, WA, Stergiou, N. Use of information entropy measures of sitting postural sway to quantify developmental delay in infants. *Journal of Neuroengineering and Rehabilitation*, 2009, Vol. 6: 34-

Deffeyes, J., **Harbourne, R. T.**, Kyvelidou, A., Stuberg, W., Stergiou, N. Nonlinear analysis of sitting postural sway indicates developmental delay in infants. *Clinical Biomechanics*, 2009, Vol. 24, 564-570

Kyvelidou, A., **Harbourne, RT**, Stuberg, W., Stergiou, N. Reliability of center of pressure measures for assessing the development of sitting postural control. *Archives of Physical Medicine and Rehabilitation*, 90, 2009; 1176-1184.

Kyvelidou, A., Stuberg, WA, **Harbourne, RT**, Deffeyes, JE, Blanke, D, Stergiou, N. (2009) Development of Upper Body Coordination during Sitting in Typical Infants. *Pediatric Research*, 65; 553-558.

**Harbourne, R. T.**, Stergiou, N. Movement variability and the use of nonlinear tools: principles to guide physical therapist practice. *Physical Therapy*, 89: 267-282, 2009. PMID: 19168711

**Harbourne, R. T.**, Deffeyes, J., Kyvelidou, A., Stergiou, N. Complexity of postural control in infants: linear and nonlinear features developed by principal component analysis. *Nonlinear Dynamics, Psychology and Life Sciences*, 13; 123-144, 2009. PMID: 19061548

Deffeyes JE, Kochi N, **Harbourne RT**, Kyvelidou A, Stuberg WA, Stergiou N.(2009).Nonlinear Detrended Fluctuation Analysis of Sitting Center-of-Pressure Data as an Early Measure of Motor Development Pathology in Infants. *Nonlinear Dynamics Psychol Life Sci*. 13(4):351-68.

**Harbourne, RT**. Motor Learning in Pediatrics. Online continuing education for Pediatric Section of APTA; 2008.

Stergiou N, **Harbourne RT**, Cavanaugh JT. Optimal movement variability: A new theoretical perspective for neurologic physical therapy. *Journal of Neurologic Physical Therapy*, 30 (3), 120-129, 2006.

**Harbourne RT**, Stergiou N. Non-linear analysis of the development of sitting postural control. *Developmental Psychobiology*, Vol. 42 (4), 368-377, 2003. PMID: 12672087

**Harbourne RT**. Accuracy of Movement Speed and Error Detection Skills in Adolescents with Cerebral Palsy. *Perceptual and Motor Skills*, Vol. 93, 419-431, 2001 PMID: 11769898

Stuberg W, **Harbourne RT**. Theoretical Practice in Pediatric Physical Therapy Past, Present, and Future Considerations. *Pediatric Physical Therapy*, Vol. 6 (3)119-125, 1994

**Harbourne RT**, Giuliani CA, Mac Neela J. A Kinematic and Electromyographic Analysis of the Development of Sitting in Normal Infants. *Developmental Psychobiology*, Vol. 26(1)51-64, 1993 PMID: 8440403

#### **Peer Reviewed Scientific and Professional Presentations:**

**Harbourne RT**, Willett S, Dusing SC, Lobo MA, Cunha A. Putting Learning Back into Motor Learning for Evidence-Based Intervention, Annual Meeting of the Academy of Pediatrics of the APTA, October 2023, Omaha NE

Molinini, R, Inamdar, K, ...**Harbourne, RT**, Lobo, MA, Dusing, SC. (2022). Feasibility And Validation Of A Problem-Solving Measure For Young Children With Motor Delays. Combined Sections Meeting of the American Physical Therapy Association, platform.

Molinini, R, Inamdar, K, **Harbourne, RT**, Lobo, MA, Dusing, SC. Different Toys Elicit Different Problem-solving Skills in Children with Mild or Significant Motor Delays. (2022). Combined Sections Meeting of the American Physical Therapy Association, poster.

**Harbourne, RT**, Jancart, K, Hsu, L, Willett, SL, McCoy, SW, Dusing, SC, Lobo, MA. The relationship between sitting function and trunk alignment in infants with severe motor delays. (2021) Combined Sections Meeting of the American Physical Therapy Association, poster.

Molinini, R, Koziol NA, Marcinowski, E, Tripathi, T, Hsu, Lin-Ya, **Harbourne, RT**; Dusing, SC; Lobo, MA. (2021) Early Motor Skills Predict The Development Of Problem Solving In Young Children With Motor Delays. Combined Sections Meeting of the American Physical Therapy Association, platform.

Hsu, Lin-Ya; Chang, Hui-Ju; Gregory, Whitney; **Harbourne, Regina T**; Dusing, Stacey C; Lobo, Michele A; Koziol, Natalie; McCoy, Sarah W (2021). Validity of the Gross Motor Function Measure-66 Item-Sets in High Risk Infants. Oral presentation at: Combined Sections Meeting of the American Physical Therapy Association; February, 2021; Virtual.

Babik, I., Cunha, A., Choi, D. H., Koziol, N. A., **Harbourne, R. T.**, Dusing, S. C., ... & Lobo, M. A. (2021, February). START-Play Intervention Advanced Reaching Outcomes in Children with Significant but Not Mild Motor Delay. In *2021 Combined Sections Meeting (CSM)*. APTA.

**Harbourne RT**, Dusing SC, Lobo MA, Westcott McCoy S. Making Children Smarter: Jointly Advancing Motor and Cognitive Development, Academy of Pediatric Physical Therapy Annual Conference, Virtual, November 2020

These next 5 are AACPD September 2020, Virtual annual conference; first 4 are platforms, last is poster:

Development Of Reaching Behaviors Across Time In Infants With Varying Levels Of Motor Delay Andrea Baraldi Cunha, PhD; Iryna Babik, PhD; Rachel Gaston; Regina T. **Harbourne**, PhD; Stacey Dusing, PhD; Sarah West

Measuring Early Problem Solving Skills In Young Children With Motor Impairments: A Validation Study Rebecca M. Molinini, DPT; Natalie A. Koziol, PhD; Tanya Tripathi, PhD; Ketaki Inamdar, MPT; Regina T.



**Harbourne**, PhD; Michele A. Lobo, PT, PhD; Sarah Westcott McCoy, PhD; James A. Bovaird, PhD; Stacey Dusing, PhD

Long Term Change In Object Permanence In Infants With Motor Delays: Group And Individual Differences In Start-Play And Usual Early Intervention Karl Jancart; Regina T. **Harbourne**, PhD; Stacey Dusing, PhD; Michele Lobo; Natalie A. Koziol, PhD; James A. Bovaird, PhD; Sarah Westcott McCoy, PhD; Lin-Ya Hsu, PhD; Andrea Baraldi Cunha, PhD; Mihee An

Relationship Between Mobility And Parent Provided Cognitive Opportunities In Young Children With Heterogeneous Motor Abilities. Audrey E. Kane, PhD, OTR/L; Natalie A. Koziol, PhD; Lin-Ya Hsu, PhD; Ketaki Inamdar, MPT; Rebecca M. Molinini, DPT; Regina T. **Harbourne**, PhD; Michele A. Lobo, PT, PhD; Sarah Westcott McCoy, PhD; James A. Bovaird, PhD; Stacey Dusing, PhD

Sensitivity of the Means-End Problem Solving Assessment Tool (MEPSAT) for Discriminating Among Infants with Varying Levels of Motor Delay A Baraldi Cunha<sup>1</sup> , I Babik , N Koziol , R **Harbourne** , S Westcott Mccoy , S Dusing , J Bovaird , M Lobo

Jancart K, Spirnak J, Boe C, Delprince A, **Harbourne RT**. (2020) Functional Sitting Skill Development, Sitting Posture and the Relationship to Object Permanence in Infants with Motor Delays; Duquesne Graduate Research Symposium.

**Harbourne RT**, Dusing SC, Lobo MA, Westcott McCoy S. (2020) Efficacy Of The Start-Play Intervention Compared To Usual Care In Children With Cerebral Palsy. Combined Sections Meeting of the American Physical Therapy Association, Denver CO.

An M, **Harbourne RT**, Dusing SC, Lobo MA, Westcott McCoy S. (2020) Implementation Of A Multi-Dimensional Fidelity Measure In The Start-Play Clinical Trial. Combined Sections Meeting of the American Physical Therapy Association, Denver CO.

Khurana S, Kane A, Marcinowski E, **Harbourne R**. (2020) Changes In Parent Child Interaction Following Start-Play. Combined Sections Meeting of the American Physical Therapy Association, Denver CO.

Molinini R, Inamdar K, Russell D, **Harbourne R**. (2020) Developing A Sensitive Model Measuring Change In Problem-Solving Skills In Infants With Motor Delays. Combined Sections Meeting of the American Physical Therapy Association, Denver CO.

Hsu L, Paulson ML, **Harbourne R**, Dusing S. (2020) Efficacy Of The Start-Play Program For Infants With Neuromotor Disorders: Adaptive Behavior Outcome. Combined Sections Meeting of the American Physical Therapy Association, Denver CO.

Molinini R, Inamdar K, Russell D, **Harbourne R**, Dusing S. (2020) Validation Of A Measure Of Change In Problem-Solving Skills In Infants With Motor Delays. Combined Sections Meeting of the American Physical Therapy Association, Denver CO.

Paulson M, Hsu L, **Harbourne R**, Dusing S, Westcott S. (2020) Adaptive Behavior In Infants With Neuromotor Delay. Combined Sections Meeting of the American Physical Therapy Association, Denver CO.

**Harbourne RT**, Dusing SC, Lobo MA, Westcott McCoy. (2020) Efficacy of the START-Play Program for Infants with Neuromotor Disorders: Closing the Gap between Movement and Cognition in Early Intervention. Institute of Education Sciences, Department of Education Annual PI meeting, Washington DC.

**Harbourne RT**. (2019) Transition from explorer to problem solver and back to explorer. Presentation at Research Summit V, Academy of Pediatric Physical Therapy, October 2019, Washington DC.

**Harbourne, R.**, Dusing, S., Lobo, M., McCoy, S., Koziol, N., Hsu, L., ... & An, M. (2019). Efficacy of the start-play program for infants with neuromotor disorders: cognitive outcomes: L6. *Developmental Medicine & Child Neurology*, 61, 70-71. Presented at AACPDM meeting Sept 2019, Anaheim CA

**Harbourne, R.**, Dusing, S., McCoy, S., Cunha, A., Babik, I., Hsu, L., ... & An, M. (2019). Efficacy of the start-play program for infants with neuromotor disorders: motor outcomes: K9. *Developmental Medicine & Child Neurology*, 61, 66-67. Presented at AACPDM meeting Sept 2019, Anaheim CA

**Harbourne RT**, Dusing SC, Lobo MA, Westcott McCoy S. Making Children Smarter: Jointly Advancing Motor and Cognitive Development, January 23, 2019. Pre-conference, Combined Sections Meeting of the American Physical Therapy Association, Washington DC.

**Harbourne RT**, Dusing SC, Lobo MA, McCoy SW, Bovaird J, START-Play Consortium. (2019) Efficacy of the START-Play Program for Infants with Neuromotor Disorders: Preliminary Results of Comparison with Usual Early Intervention. Presented at the Institute of Education Sciences PI meeting, January 2019, Washington DC.

An, M., **Harbourne RT**, Hsu, L., Stankus, J. (2019) Progression Of Object Permanence In Relation To Sitting Development In Infants With Motor Delays. Presented at Combined Sections Meeting of the American Physical Therapy Association, Washington DC. *Pediatric Physical Therapy*: [January 2019 - Volume 31 - Issue 1 - p E31–E69](#)

Surkar S, Hoffman R, Kurz M, **Harbourne RT**. (2019) Influence Of A Dual-Task On Prefrontal Cortical Activation In Children With Hemiplegic Cerebral Palsy. Presented at Combined Sections Meeting of the American Physical Therapy Association, Washington DC. *Pediatric Physical Therapy*: [January 2019 - Volume 31 - Issue 1 - p E22–E30](#)

Dusing, SC, **Harbourne, R**, Lobo MA, Westcott-McCoy S, Bovaird J. "Improvements in Motor and Cognitive Development Following Sitting Together And Reaching To \_Play (START\_Play): Single Subject Multiple Baseline Study of Two Children ", Free Paper Presentation AACPDM 2018. Cincinnati, Ohio October 2018. *Developmental Medicine & Child Neurology* Volume 60 Issue S3

An, M., **Harbourne, R.**, Stankus, J., Hsu, L., Marcinowski, E., Dusing, SC. "A Comparison of Object Permanence Progression during Sitting Development in Infants with Typical Development and Infants with Motor Delay " Poster Presentation AACPDM 2018. Cincinnati, Ohio October 2018. *Developmental Medicine & Child Neurology* Volume 60 Issue S3

**Harbourne RT** Berger S. Finding your Own Way: Comparison of Interventions for Infants with Motor Delays to Improve Movement and Problem-Solving. International Congress of Infant Studies, Philadelphia PA - June 30-July 3, 2018

An, M., Dusing, SC., Stankus, J., Hsu, L., **Harbourne, RT**. Sitting and Searching: Reliability and Validity of an Object Permanence Scale in Relation to Sitting Development. International Congress of Infant Studies, Philadelphia PA - June 30-July 3, 2018

**Harbourne, RT.**, Dusing, SC, Lobo MA, McCoy SW.  
"Making Children Smarter: Jointly Advancing Motor and Cognitive Development"  
American Physical Therapy Association Combined Sections Meeting, educational session - Feb 2018  
New Orleans, LA

Hsu, Lin-Ya, Chang Hui-Ju, Gregory W., McCoy SW, **Harbourne, RT**. Concurrent validity of two abbreviated versions of the Gross Motor Function Measure in young infants with neuromotor disorders. Presented at CSM, Feb 2018, New Orleans, LA. *Pediatric Physical Therapy*: [January 2018 - Volume 30](#)

**Harbourne, RT.**, Chang, H., Stankus, J. The Relationship Between Developing Sitting Postural Control And Object Permanence In Infants With Neuromotor Disorders. Presented at CSM, Feb 2018, New Orleans, LA. Pediatric Physical Therapy: [January 2018 - Volume 30](#)

Chang,HJ, Hsu,L., McCoy, SW, **Harbourne, RT.** Service delivery of PTs and Ots in early intervention: How are we doing? Presented at CSM, Feb 2018, New Orleans, LA. Pediatric Physical Therapy: [January 2018 - Volume 30](#)

Babik, I., Cunha, A. Lobo, MA., **Harbourne RT.** Validity and reliability of the Angles Video Goniometer App for the assessment of joint angles in children and adults. Presented at CSM, Feb 2018, New Orleans, LA.

**Harbourne RT**, Stankus J, Cochran, N, Chang H, START-Play Consortium. (2017) Home-Based Video Application To Quantify Infant Postural Control And Movement: Angles-Video Goniometer© Poster, American Academy of Cerebral Palsy and Developmental Medicine - Sept 2017 Montreal, Canada

### **Harbourne RT**

“Moving out of the Comfort Zone: problem solving to advance motor and cognitive development”  
Mini-CSM - Feb 25, 2017  
Pennsylvania Physical Therapy Association  
Pittsburgh PA

### Dusing SC, **Harbourne RT**

“Does Movement Change Cognition? Documenting key ingredients and quantifying fidelity”  
American Academy of Cerebral Palsy and Developmental Medicine - Sept 2016  
Ft. Lauderdale, FL

### **Harbourne, R.**, Libertus, K.

“Moving, Looking and Learning: Problem Solving Through a Child's Eyes”  
Section on Pediatrics Annual Conference, Symposium  
Pittsburgh, PA.  
November, 2015

### **Harbourne, RT.**, Galloway, JAC, Iverson, J.

“Moving to Learn, Learning to Move”  
Combined Sections Meeting of the APTA Symposium  
Chicago, IL.  
February, 2012

### **Harbourne, RT**

“Intervention to Advance Sitting and Reaching in Infants and Young Children with Disabilities: Evidence and Clinical Decision Making Principles”  
APTA - Combined Sections Meeting Symposium  
New Orleans, LA.  
February, 2011

**Harbourne, RT.** Nonlinear dynamics in sitting postural control and visual attention in infants with typical development and infants with motor delays  
North American Society for the Psychology of Sport & Physical Activity (NASPSPA)  
Tucson, AZ  
June, 2010

### **Harbourne, RT**

“Eye and head tracking and sitting postural control in typical infants and infants with neuromotor delays”  
North American Society for the Psychology of Sport & Physical Activity (NASPSPA)

Tucson, AZ  
June, 2010

**Harbourne, RT**

“Infant Looking Times and Developing Sitting Postural Control”  
International Conference on Infant Studies  
Baltimore, MD  
2010

**Harbourne, RT**

“Nonlinear Dynamics in Physical Therapy Intervention: How does the new concept of complexity relate to clinical practice?”  
APTA - Combined Sections Meeting  
San Diego, CA  
2010

**Harbourne, RT**

“Discriminant Analysis and nonlinear variables used to identify postural control deficits in infants”  
North American Society for Psychology of Sport and Physical Activity Annual Conference  
San Diego, CA  
2007

**Harbourne, RT**

“Motor Learning Intervention for Development of Sitting Postural Control and Use of Nonlinear Measures”  
North American Society for Psychology of Sport and Physical Activity Annual Conference,  
Denver, CO  
2006

**Funded Grant Activity:**

PIs: Sarah Berger and **Regina Harbourne**  
\$400,000  
RUI: The Role of Sleep In Infant Motor Problem Solving  
Source: National Science Foundation # 1941122  
Sept 2020-August 2023  
Currently in no-cost extension year until August 2024

PI: Stacey C. Dusing and **Regina Harbourne**  
\$3,043,834  
Sitting Together And Reaching To Play A Multicenter Clinical Trial for Children under 2 years with Cerebral Palsy (SIT-PT)  
Source: NIH/NICHHD R01 HD101900  
May 2020-April 2025

**PI: Regina Harbourne**

\$3,430,109  
Efficacy of the START-Play Program for Infants with Neuromotor Disorders (Multi-Site study)  
Source: U.S. Department of Education; Award #R324A150103  
Clinical trial registry NCT02593825  
July 2015 – June 2019  
Supplement to this grant received 12/2019 \$929,509 for follow-up until 6/2022

**PI: Regina Harbourne**

\$6,500  
A Mobile Application for Early Quantification of Motor Skill in Infants at Risk  
Source: Faculty Development Grant – Duquesne University  
May 2015 – August 2017

PI: **Regina Harbourne**

\$32,781

Project for Cognitive Advancement in infants with Neuromotor DisOrders

Source: Pennsylvania CURE Grant

January 2015 – December 2018

PI: **Regina Harbourne**

\$21,500

Additional infant adaptations to the function Near Infra Red Spectroscopy brain imaging system

Source: Monroe-Meyer Institute (MMI) - Women's Guild

March 2013

PI: **Regina Harbourne**

\$13,000

Equipment grant to expand the Infant Lab SIMI system

Source: MMI Seed Grant

April 2012

PI: **Regina Harbourne**

\$17,000

Positive Science Eye Tracking System

Source: MMI Women's Guild

April 2012

PI: **Regina Harbourne**

\$30,000

Intervention to advance postural transitions in young children with neuromotor disabilities and resulting effects on play

Source: American Physical Therapy Association, Section on Pediatrics

January 2012 – December 2012

Co-PI: Regina Harbourne

\$500,000

Center for Neural Basis of Motor Development and Rehabilitation

Source: Hattie B. Munroe Foundation

2011 - 2015

Co-PI: **R. Harbourne**, N. Stergiou, C. Galloway

\$30,000

Extension: Does Early Postural Intervention Effect Sitting Balance or Reaching in Infants Born Preterm.

Source: American Physical Therapy Association, Section on Pediatrics Planning Grant

January 2009 - June 2010

Co-PI: **R. Harbourne**

\$453,863

Bioengineering a Medical Device for the Evaluation of Sitting Posture in Infants with a Motor Disability.

Source: Nebraska Research Initiative, \$453,863

February 2009 – February 2011

PI: S. Dusing; Co-PI: **R. Harbourne**, N. Stergiou, C. Galloway

Does Early Postural Intervention Effect Sitting Balance or Reaching in Infants Born Preterm. American

Source: Physical Therapy Association, Section on Pediatrics Planning Grant. No Number.

PI: S. Dusing; Co-PI: R. Harbourne, N. Stergiou, C. Galloway 1/1/09-6/30/10 \$30,000

PI: Nicholas Stergiou; Co-PI: **Regina Harbourne**

\$600,000

Investigation of Interventions for Sitting Postural Control in Young Children with Moderate to Severe Cerebral Palsy (H133G080023)  
Source: National Institute of Disability and Rehabilitation Research  
October 2008 – September 2011

PI: Nicholas Stergiou, Co-PI: **Regina Harbourne**, Wayne Stuberg  
\$692,618 (Total Cost); \$577,182 (Direct Cost)  
Nonlinear Analysis of Postural Function in Infants.  
Source: National Institute of Health 1K25 HD 047194-01A1,  
August 2005 – August 2010

PI: Nicholas Stergiou; Co-PI: **Regina Harbourne**, Wayne Stuberg  
\$540,000 (Total Cost); \$450,000 (Direct Cost)  
Investigation of the dynamics of sitting posture control in infants with cerebral palsy  
Source: U.S. Department of Education, Field Initiated Program 84.133G-1.  
December 2004 – December 2007

PI: **Regina Harbourne**; Co-PI: Heidi Reelfs  
\$5,800  
Bicycle training program (PEDALS)  
Source: MMI Women's Guild  
January 2003

PI: **Regina Harbourne**  
\$3,500  
Improvement of treatment areas  
Source: MMI Women's Guild  
January 1995 – December 1995

PI: **Regina Harbourne**  
\$992  
Error Detection Skills in Adolescents with Cerebral Palsy  
Source: Pediatric Section, American Physical Therapy Association,  
January 1992 – December 1992

PI: **Regina Harbourne**  
\$350  
Motor Learning and Error Detection Skills in Adolescents with Cerebral Palsy  
Source: MMI Women's Guild  
January 1990 – December 1990

PI: **Regina Harbourne**  
\$595  
Effect of Aquaplast Orthotics on Children with Cerebral Palsy  
Source: MMI Women's Guild  
January 1988 – December 1988

PI: **Regina Harbourne**  
\$5,000  
Effect of Orthotics on Muscle Activity in Cerebral Palsy  
Source: MMI Women's Guild  
January 1988 – December 1988

PI: **Regina Harbourne**  
\$7,500

Effectiveness of Inhibitive Casting  
University of Nebraska Medical Center – MMI seed grant  
January 1987 – December 1987

**Current/Active Research Activity:**

PIs: Sarah Berger and **Regina Harbourne**

\$400,000

RUI: The Role of Sleep In Infant Motor Problem Solving

Source: National Science Foundation

Sept 2020-August 2023

PI: Stacey C. Dusing and **Regina Harbourne**

\$3,043,834

Sitting Together And Reaching To Play A Multicenter Clinical Trial for Children under 2 years with Cerebral Palsy (SIT-PT)

Source: NIH/NICHHD R01 HD101900

May 2020-April 2025

**Recent grants submitted, in review, or in process:**

Evaluation Of The Effectiveness Of A Dose-Matched Powered Mobility Intervention For Yound Children With CP. Submission in process as sub-contract to University of Washington, PI, Heather Feldner. Duquesne site PI: Regina Harbourne. Submitting to NIH, R01 mechanism; proposed period 9/1/24-8/31/29.

**Membership in Scientific/Professional Organizations:**

Research committee

APTA - Academy of Pediatric Physical Therapy

2016 - Present

Planning committee Research Summitt V, 2018-2019

American Academy of Cerebral Palsy and Developmental Medicine

2013 - 2023

Member & Awards Committee member

International Society for Infant Studies

2013 - Present

Member & Reviewer

APTA – Neurology Section

1996 - Present

Member

Nebraska APTA Research Committee

1991 – 1993

Chair

APTA – Pediatric Section

1982 – Present

Member

American Physical Therapy Association

1977 - Present

Member

**Consultative and Advisory Positions Held:**

Reviewer, Motor section abstracts for biannual meeting

International Society for Infant Studies  
2016, 2018

Associate Editor  
Pediatric Physical Therapy Journal  
2015 – 2022

Editorial Board Member  
Pediatric Physical Therapy Journal  
2022-present

Editorial Board member  
Physical and Occupational Therapy in Pediatrics Journal  
2013 - Present

Manuscript reviewer for:  
Physical Therapy Journal, 2004-present  
Developmental Medicine and Child Neurology Journal, 2008-present  
Motor Control Journal, 2008-present  
Gait and Posture, 2009-present  
Experimental Brain Research, 2013-present  
Journal of Motor Learning and Development, 2016-present  
Physical and Occupational Therapy in Pediatrics, 2009-present  
Pediatric Physical Therapy, 2010-present  
Developmental Rehabilitation, 2013-present  
Infant Behavior and Development, 2015-present  
Cognitive Development, 2018-present  
Frontiers- Developmental Psychology, 2016-present

Consultant for:  
SBIR NIH grant 9R44HD095783-03: An Automated Early Motor Development Risk Screener From  
Observational Video Recordings Of Infants And Toddlers; PI Bharath Modayur, 2018-2021

**Community Service:**

Physical Therapy Consultant and online instructor  
St. Rita's Professional Development Academy  
Cameroon, Africa  
2018-present

Board of Directors Member, Pittsburgh Learning Commons  
Community Forge  
Wilksburg, PA  
June 2019-2022

Play Everywhere Team  
KaBoom! grant writing for Community Forge in Wilksburg, PA  
Received \$30,000 grant to build playground

Magic in Motion Therapeutic Riding Center, Council Bluffs, Iowa  
Therapy consultant, volunteer and Board Member  
1999-2005

**Services to the University/College/School on Committees/Councils/Commissions:**  
**University**

Search committee, Dept of Physical Therapy  
Duquesne University



2021-2022

Search committee, Dean of Osteopathic School  
Duquesne University  
July 2019-Fall 2019

Duquesne University  
START-Play Hacker Club; faculty sponsor  
2015 - Present

Duquesne University Women in Science  
Leadership group, Rangos Health Sciences representative  
2017-present  
Women in STEM committee, Office of the Provost, Spring 2019-Fall 2021

Duquesne University  
Office of Research  
Reviewer, Faculty Development Fund proposals  
Spring, 2016

Ad hoc committee on faculty compensation for externally funded research  
Office of Research/Provost office  
Fall, 2016

## **School**

Rangos School of Health Sciences Dean's Advisory Group on Research & Scholarship, 2018-2023

Rangos School of Health Sciences Dean's Advisory Group on New Programs and Revenue Opportunities, 2019

Rangos School of Health Sciences Strategic Planning Committee, 2018

Search Committee, Speech and Language Dept, Rangos 2018-2019

Student Standing Committee 2016 - 2023

## **Department**

Matriculation Committee  
2014 - 2023

## **Honors and Awards:**

Toby Long Award for best paper published in the Pediatric Physical Therapy Journal in 2024. "START-Play Physical Therapy Intervention Indirectly Impacts Cognition Through Changes in Early Motor-Based Problem-Solving Skills"

Toby Long Award for best paper published in the Pediatric Physical Therapy Journal in 2023, "Learn the Signs. Act Early". (2023)

Chattanooga Research Award for best paper published in the Physical Therapy Journal, 2022: "START-Play Physical Therapy Intervention Impacts Motor and Cognitive Outcomes in Infants With Neuromotor Disorders: A Multisite Randomized Clinical Trial.

Gayle G. Arnold award for the Best Scientific Paper, American Academy of Developmental Medicine and Child Neurology, for "*Early vs. Late Reaching Mastery's Effect on Object Permanence in Infants with Motor Delays Receiving START-Play and Usual Care Early Intervention*", 2022

Gayle G. Arnold award for the Best Scientific Paper, American Academy of Developmental Medicine and Child Neurology, for *"Efficacy of the START-Play Program for Infants with Neuromotor Disorders: Cognitive Outcomes"*, 2019

Rangos \$5000 Prize for proposal "A Mobile Maker Lab"; co-author with Dr. Rich Simpson and Dr. Patrick Cooper, 2020

Rangos \$1000 Prize for proposal "A Mobile Maker Lab"; co-author with Dr. Rich Simpson and Dr. Patrick Cooper, 2019

Duquesne University Research Hall of Fame  
2019

Catherine Worthingham Fellow (FAPTA)  
American Physical Therapy Association  
June, 2017

Dean's Award for Excellence in Scholarship  
Rangos School of Health Sciences  
May, 2016

Stephen Haley Research Award  
American Physical Therapy Association - Section on Pediatrics  
2013

Jeanne Fischer Distinguished Mentorship Award  
American Physical Therapy Association - Section on Pediatrics  
2006

Chancellor's Council Silver 'U' Award  
University of Nebraska Medical Center  
2003

Mary Clyde Singleton Award for excellence in the art and science of Physical Therapy  
Graduate Program in Physical Therapy  
University of North Carolina  
1987

Limited Service Teaching Assistantship  
University of North Carolina Graduate School (\$5,000)  
1985 - 1986

Excellence in the Workplace Award  
Meyer Rehabilitation Institute  
University of Nebraska Medical Center  
1995

Parents in Partnership Award  
Greater Omaha Association for Retarded Citizens  
1998

**Continuing Education Attended:**

Certification for the Hammersmith Infant Neurologic Exam. Omaha, NE, August 2021

American Academy of Cerebral Palsy and Developmental Medicine annual meeting, Sept, 2016, 2017, 2018, 2019, 2020, 2021, 2022

Combined Sections Meeting, APTA, Pediatric Section, February, 2016, 2018, 2019, 2020, 2021, 2022, 2024

International Congress of Infant Studies, June 30-July3, 2018

IV Step Prevention, Prediction, Plasticity, Participation. Pediatric & Neurology sections, APTA July 2016

**Past Teaching Responsibilities in the Entry-Level Program until retirement in 2023:**

HLTS 603  
PHYT 572

Neuroscience  
Pediatrics/Lab

2<sup>nd</sup> Professional Year – Fall  
2<sup>nd</sup> Professional Year - Spring