

Curriculum Vitae
University of Pittsburgh
School of Health and Rehabilitation Sciences

BIOGRAPHICAL

Name: Reivian Berrios Barillas

Business Address:

Department of Physical Therapy
Bridgeside Point 1
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Pittsburgh, PA 15219-3130
Business Phone: 412-383-5633

EDUCATION and TRAINING

UNDERGRADUATE

1995-1999	Marquette University Milwaukee, WI	Bachelor of Arts 1999	Spanish for the Professions
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GRADUATE

1998-2001	Marquette University Milwaukee, WI	Masters 2001	Physical Therapy
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2005-2008	University of St. Augustine St. Augustine, FL	Doctor 2008	Physical Therapy
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2011-2016	Marquette University Milwaukee, WI	Doctor of Philosophy 2016	Clinical Translational Rehabilitation & Health Sciences
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POSTGRADUATE

2015-2016	University WI- Milwaukee Milwaukee, WI	Post-Doctoral Fellow Program Director: Scott Strath, PhD, ASCM Fellow Discipline: Kinesiology	Neurologic Rehabilitation
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2016-2016	University WI- Milwaukee Milwaukee, WI	Research Associate Program Director: Scott Strath, PhD, ASCM Fellow Discipline: Kinesiology	Neurologic Rehabilitation
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APPOINTMENTS and POSITIONS

ACADEMIC

2002-2006, 2009-2012	Marquette University Milwaukee, WI	Instructor, Dept of Physical Therapy
2004-2005	Marquette University Milwaukee, WI	Academic Advisor, Dept of Physical Therapy
2010-2011	Gateway Technical College Kenosha, WI	Instructor & Academic Coordinator of Clinical Education, Dept of Physical Therapy Assistant
2011-2011	Marquette University Milwaukee, WI	Laboratory Supervisor, Dept of Physical Therapy
2011-2015	Marquette University Milwaukee, WI	Graduate Assistant, Dept of Physical Therapy
2014-2014	Marquette University Milwaukee, WI	Instructor, Dept of Physical Therapy
2016-2020	Concordia University- Wisconsin Mequon, WI	Assistant Professor, Dept of Occupational Therapy
2021-present	University of Pittsburgh Pittsburgh, PA	Assistant Professor, Dept of Physical Therapy

NON-ACADEMIC

2001-present	Aurora/Advocate Health Care Milwaukee, WI	Staff Physical Therapist
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CERTIFICATION and LICENSURE

MEDICAL or OTHER PROFESSIONAL LICENSURE:

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|---|--------------|
| 1. Licensed Physical Therapist/Wisconsin #9667-24 | 2001-present |
| 2. Licensed Physical Therapist/Pennsylvania #PT029223 | 2021-present |

MEMBERSHIP in PROFESSIONAL and SCIENTIFIC SOCIETIES

1. American Physical Therapy Association (APTA)	2001- present
2. Wisconsin Physical Therapy Association (WPTA)	2001- present
3. Aurora/Advocate Health Care Clinical Reference	2008- present
4. Clinical Translation Health Sciences of Southeastern Wisconsin	2011- present
5. Wisconsin Occupational Therapy Association	2016-2019
6. American Association of Anatomists	2017-2020
7. APTA-Education Section, Anatomy Special Interest Group (SIG)	2017- present
8. American Association of Clinical Anatomists	2020- present
9. APTA-Orthopedic Section	2020- present
10. APTA-Health Policy & Administration Section, Global Health & Technology	2020- present

HONORS

1. Neuromuscular Plasticity Scholar - University of Florida (\$350)	2013
2. Graduate School Travel Award - Marquette University (\$300)	2013
3. External Research Awardee - Concordia University	2017

PUBLICATIONS

1. ORIGINAL PEER REVIEWED ARTICLES

1. Rybar MM, Walker, E, Kuhnen, HR, Ouellette DR, **Berrios R**, Hunter SK, Hyngstrom, AS. (2014). The stroke-related effects of hip flexion fatigue on over ground walking. *Gait & Posture*. 39: 1103-1108. doi: 10.1016/j.gaitpost.2014.01.012. PMID: 24602975. PMCID: PMC4007512.
2. Murphy S, **Berrios R**, Nelson A, Negro F, Farina D, Schmit B, Hyngstrom A. (2015). Impaired regulation post-stroke of motor unit firing behavior during volitional relaxation of knee extensor torque assessed using high density surface EMG decomposition. *IEEE Engineering in Medicine and Biology Society Conference*. 2015: 4606-9. doi: 10.1109/EMBC.2015.7319420. PMID: 26737320. PMCID: PMC5073378.
3. Kirking M, **Berrios Barillas R**, Nelson P, Hunter S, Hyngstrom A. (2017). Sex differences in neuromuscular fatigue of the knee extensors post stroke. *Brain Science*. 7: 8. doi: 10.3390/brainsci7010008. PMID: 28085089. PMCID: PMC5297297.
4. Kalinosky BT, **Berrios Barillas R**, Schmit BD. Structurofunctional resting-state networks correlate with motor function in chronic stroke. (2017). *NeuroImage: Clinical*, 16C: 610-623. doi: 10.1016/j.nicl.2017.07.002. PMID: 28971011. PMCID: PMC5619927.
5. Benning, M, Lemkuil, S, Sullivan, A, Moser, C, Watry-Christian, M, **Berrios, R**. (2018). Effectiveness of a 5-day summer handwriting camp for children ages 5-9 years old. *Journal of Occupational Therapy, Schools & Early Intervention*. 11: 385-395. <https://doi.org/10.1080/19411243.2018.1496868>.
6. **Berrios Barillas, R**. (2019). The effect of 3D human anatomy software on online students' academic performance. *Journal of Occupational Therapy Education*. 3. <https://doi.org/10.26681/jote.2019.030202>
7. Hyngstrom, A, Cho, C, **Berrios Barillas, R**, Joshi, M, Rowley, T, Keenan, K, Staudenmayer, J, Swartz, AM, Strath, S. (2020). Identification of latent classes of motor performance in a

heterogeneous population of adults. *Archives of Rehabilitation Research and Clinical Translation*. 2(4). <https://doi.org/10.1016/j.arrct.2020.100080>.

<https://www.sciencedirect.com/science/article/pii/S2590109520300689?via%3Dihub>

8. **Berrios Barillas, R**, Lemley, K. (2021). Is compressed and limited synchronous delivery of anatomy content in a hybrid delivery format effective in transitional OT student learning. *Journal of Occupational Therapy Education*. (in press)

2. PUBLISHED ABSTRACTS (in Scientific Journals)

1. **Berrios Barillas, R**, Lemley, K. (2019). Supervised human anatomy laboratory time and its effect on short- and long-term academic course grade performance. *Journal of Anatomy*.

Presented at International Federation of Anatomists Association Congress, London, UK, 2019.

<https://doi.org/10.1111/joa.13163>

3. ABSTRACTS (not published in Scientific Journals)

1. Rybar M, Kuhnen, H, **Berrios Barillas R**, Walker E, Ouellette D, Dillon L, Patel M, Hunter S, Schmit B, Hyngstrom A. Hip flexor fatigue following sub-maximal concentric contractions and walking function post stroke. APTA Combined Sections Meeting, 2013.

2. **Berrios Barillas R**, Kirking MD, Rybar MM, Schmit BD, Kipp K, and Hyngstrom AS. The effect of stimulus frequency on h-reflex responses post stroke. University of Florida Neuromuscular Plasticity Symposium, 2013.

3. Ouellette D, Rybar M, Kuhnen, H, Walker E, **Berrios Barillas R**, Hunter S, Schmit B, Hyngstrom A. Hip flexor fatigue following sub-maximal concentric contractions and walking function post stroke. WPTA Spring Conference, 2013.

4. Rybar M, Kuhnen, H, **Berrios Barillas R**, Walker E, Ouellette D, Hunter S, Schmit B, Hyngstrom A. Hip flexor fatigue following sub-maximal concentric contractions and walking function post stroke. WPTA Spring Conference, 2014.

5. Murphy S, **Berrios R**, Hunter S, Negro F, Farina D, Nelson PA, Schmit B, Keenan K, Hyngstrom A. Stroke-related changes in the motor unit firing behavior during fatiguing contractions. International Motorneuron Meeting, 2014.

6. Murphy S, **Berrios R**, Hunter S, Negro F, Farina D, Nelson PA, Schmit B, Keenan K, Hyngstrom A. Modulation of motor units during repeated contractions post-stroke. Society of Neuroscience Annual Meeting, 2015.

7. **Berrios, R**, Kirking, M, Kuhnen, H, Hunter, S, Schmit, B, Hyngstrom A. Fatiguing contractions of paretic knee extensors do not exacerbate stretch reflex responses. Society of Neuroscience Annual Meeting, 2015.

8. **Berrios, R**, Joshi, M, Keenan, K, Strath, S, Hyngstrom, A. The relationship between sub-maximal knee extensor force regulation and function post stroke. APTA Combined Sections Meeting, 2016.

9. Lutz, M, Menozi, A, Moser, C, Watry, M, **Berrios Barillas, R**. Effects of an intensive short-term occupational therapy program on the quality of manuscript handwriting. AOTA/NBCOT National Student Conclave, Dearborn, MI, 2016.

10. Carlson, C., Kohlbauer, E., Roozenboom, B., Weingarten, S., Watry-Christian, M, **Berrios Barillas, R**. The impact of service learning and academic performance on professional growth. CUW Faculty Conference, 2017.

12. Sullivan, A, Alfano, A, Benning, M, Lemkuil, S, Moser, C, Watry-Christian, M, **Berrios Barillas, R**. The effects of a 5-day manuscript and cursive camp for 4-10-year-old children. AOTA/NBCOT National Student Conclave, Birmingham, AL, 2017.

13. Sabel, B, Hilbelink, M, Sass, K, Cunningham, B, Radue, K, Warbelton, M, **Berrios, R.** Impact of 3D human anatomy software on academic performance of non-traditional occupational therapy students. Annual Occupational Therapy Association/Pi Theta Epsilon Annual Conference, New Orleans, LA, 2019.
14. Withey, M, Bushke, M, Runke, C, Carlson, C, Kohlbauer, E, Roozenboom, B, Moser, C, Watry-Christian, M, **Berrios, R.** Preventative occupational therapy impact on classroom engagement in urban parochial schools. Annual Occupational Therapy Association/Pi Theta Epsilon Annual Conference, New Orleans, LA, 2019.
15. Lafrenz, O, Lucht, A, Banks, A, Lemley, K, **Berrios Barillas, R.** Human dissection and its impact on face-to-face and hybrid OT student academic performances. Annual Occupational Therapy Association Conference, Boston, MA, 2020. (Accepted abstract, conference cancelled due to COVID-19)
16. **Berrios Barillas, R,** Walston, Z. Is post-surgical knee impairment and rehabilitation cost impacted by use of an autograft versus allograft? APTA Combined Sections Meeting, virtual, February, 2021.
17. Walston, Z, **Berrios Barillas, R.** The effectiveness of rehabilitation on post-surgical knee graft: bone patellar tendon bone versus quadriceps tendon. APTA Combined Sections Meeting, virtual, February, 2021.
18. Wilson, R, Mekonnen, H, Holmgren, E, Gaatz, A, Lemley, K, **Berrios Barillas, R.** What are predictors for passing the Occupational Therapy licensing exam? AOTA Inspire, virtual conference, April 2021.

PROFESSIONAL ACTIVITIES

TEACHING

<u>Course Number</u>	<u>Title</u>	<u>Years</u>	<u>Students</u>	<u>Responsibilities</u>
1. MU	Introduction to Physical Therapy	2002-2006, 2009-2012	20 high school students	Instructor, one-session/year, 4 credits

Undergraduate Student Teaching:

<u>Course Number</u>	<u>Title</u>	<u>Years</u>	<u>Students</u>	<u>Responsibilities</u>
1. 524-144	Neuromuscular Rehabilitation	2010	20 physical therapy assistant students	Instructor, one-session/year, 4 credits
2. 524-144	Clinical	2010-2011	20 physical therapy assistant students	Instructor, three-sessions/year, 3 credits
3. 524-148	Education			
4. 524-151				

Graduate Student Teaching:

<u>Course Number</u>	<u>Title</u>	<u>Years</u>	<u>Students</u>	<u>Responsibilities</u>
1. PHTH7518	Physiology of Activity	2011	80 physical therapy students	Laboratory Supervisor, one-

					session/year, 4 credits
2.	PHTH7932	Advanced Neurologic PT	2014	25 physical therapy students	Instructor, one-session/year, 2 credits
3.	OT550	Human Gross Anatomy	2016-2019	28 occupational therapy students	Instructor, three-sessions/year, 6 credits
4.	OT582	Scientific Inquiry III	2016-2020	28 occupational therapy students	Instructor, one-session/year, 3 credits
5.	OT503	Functional Anatomy	2020	28 occupational therapy students	Instructor, three-sessions/year, 4 credits
6.	OT501	APA & Scholarly Writing	2020	28 occupational therapy students	Instructor, three-sessions/year, 1 credit
7.	OT513	Kinesiology & Orthopedics	2020	28 occupational therapy students	Co-Instructor, one-session/year, 4 credits

Curriculum Development/Teaching Products/Media Products:

1. 2002 Introduction to Physical Therapy, pre-college PT curriculum
2. 2017-2019 Functional Anatomy Education, anatomy curriculum for graduate OT program
3. 2017-2019 Research in Practice, 4 course series of evidence-based practice curriculum for graduate OT program
4. 2017-2019 APA Scholarly Writing, citation and scholarly writing curriculum for graduate OT program
5. 2020 Upper Extremity Kinesiology & Orthopedics, musculoskeletal curriculum for graduate OT program

Mentoring:

1. 2005 Clinical Instructor, Charlene Marshall: PT
2. 2008 Clinical Instructor, Kyle Webb: PT, MU Laboratory Instructor
3. 2009 Clinical Instructor, Eddie Monroy: PT, MU Instructor, Certified Wound Care Specialist

RESEARCH

Prior Grant Support:

Grant Number (funded)	Grant Title	Role in Project	Years Inclusive	Source \$ Amount (direct)
	1. Clinical Translational Rehabilitation & Health Sciences Fellowship, MU	75% effort (graduate researcher)	2011-2015	\$121,000 (direct)
	2. R21 Fellowship, MU & UWM	75% effort (research associate)	2014-2016	\$51,125 (direct)
	3. Shopko Foundation Grant	5% effort (PI)	2016-2017	\$1000 (direct)
	4. We Energies Foundation Grant	5% effort (PI)	2016-2017	\$500 (direct)
	5. Concordia Intramural Research Grant	10% effort (PI)	2017-2018	\$800 (direct)
	6. Concordia Intramural Teaching Grant	10% effort (PI)	2016-2020	\$4780 (direct)
	7. Concordia Intramural Research Grant	10% effort (PI)	2020	\$3600 (direct)

LIST of CURRENT RESEARCH INTERESTS

- Anatomy education, musculoskeletal pathology, health disparities

INVITED SEMINARS AND LECTURESHIPS

Local Presentations

1. 1996-2015, Health Careers Opportunity Program, Marquette University, Milwaukee, WI
2. 2002-2011, Aurora Health Care In-services, Aurora Health Care, Milwaukee, WI
3. 2010, Clinical Performance Instrument Training, Gateway Technical College, Kenosha, WI
4. 2011, Advanced Principles & Instrumentation in Biomechanics, Marquette University, Milwaukee, WI
5. 2013-2014, Neurophysiology, Marquette University, Milwaukee, WI
6. 2017, Shoulder Pain: Musculoskeletal or Visceral Origin, Concordia University-WI, Mequon, WI

7. 2017, Health Careers, University of WI-Milwaukee, Milwaukee, WI
8. 2017-2020, Stroke & Exercise, Concordia University-WI, Mequon, WI

Regional Presentations

9. 2017, Health Heroes Camp, Wisconsin Occupational Therapy Association (WOTA) Conference, Appleton, WI
10. 2017, Handwriting Camp, WOTA Conference, Appleton, WI
11. 2018, Anatomy Education, WOTA Conference, Mequon, WI
12. 2018, Classroom Engagement, WOTA Conference, Mequon, WI
13. 2019, Anatomy Education, WOTA Conference, Appleton, WI

SERVICE

University Service

1. 2016-2020, Concordia University- WI (CUW) Admissions OT Committee Member
2. 2016-2020, CUW Inter-professional (IPE) Event Facilitator,
3. 2017-2018, CUW New Faculty Mentor, university-wide
4. 2018-2020, CUW OT Admissions Committee Chair, 3 OT cohorts

Local/Community Service Activities

5. 2019-2020, City of Franklin Library Board Trustee
6. 2020- present, City of Franklin Library Board Trustee – Vice President

Regional Service

7. 2017- present, Wisconsin Physical Therapy Association Awards Committee Reviewer

National Service

8. 2018- present, APTA Anatomy SIG – Membership Secretary/Treasurer
9. 2019- present, Clinical Anatomy - Manuscript Reviewer
10. 2019- present, Journal of Anatomy - Manuscript Reviewer
11. 2020- present, APTA Anatomy SIG - Grant Reviewer
12. 2020- present, Journal of Occupational Therapy Education – Manuscript Reviewer