

## Natali Valeriano, PT, DPT

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### Education

- **Doctor of Philosophy in Interdisciplinary Health Sciences (PhD)**  
University of Texas at El Paso, El Paso, TX  
Expected Graduation: May 2028
  - **Doctor of Physical Therapy (DPT)**  
University of St. Augustine for Health Sciences, San Marcos, CA  
Graduation: April 2025  
Relevant Coursework: Evidence Informed Practice I-III: Research Fundamentals, Neuromuscular I-III: Advanced Examination and Intervention
  - **Master of Science in Kinesiology (MS)**  
Point Loma Nazarene University, San Diego, CA  
Relevant Coursework: Research Methods and Project Seminar, Evidence Based Practice, Biomechanical and Neurological Basis of Human Movement  
Graduation: June 2021
  - **Bachelor of Science in Kinesiology (BS)**  
California State University Bakersfield, Bakersfield, CA  
Graduation: May 2018
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### Research Experience

- **Doctoral Researcher**  
University of Texas at El Paso/Stanley E. Fulton Gait Research and Movement Analysis Laboratory, El Paso, TX | August 2025 to present
  - Lead a cross-sectional pilot study examining the relationship between stride-to-stride gait variability and lower extremity joint kinematics in children with autism spectrum disorder (ASD). Designed study protocol, obtained IRB approval, and developed bilingual (English/Spanish) recruitment and consent materials for a border-community population. Conduct data collection using Theia markerless motion capture to extract spatiotemporal and kinematic gait variables across multiple walking trials.
- **Research Assistant**  
University of St Augustine for Health Sciences/Department of Physical Therapy, San Marcos, CA | April 2024 to present
  - Separated randomized controlled trials from other study types and assisted in entering data from various published articles for a study involving individuals with Duchenne muscular dystrophy under the supervision of Dr. Mohan Ganesan. Organized and de-identified patient data and ensured accurate categorization for individuals with Parkinson's disease that used virtual reality hand training.
- **Research Assistant**  
Point Loma Nazarene University/Biomechanics Laboratory, San Diego, CA | March 2020 to November 2021
  - Utilized motion capture systems and Cortex software under the supervision of Dr. Arnel Aguinaldo to analyze baseball pitching biomechanics for the Point Loma Nazarene University collegiate baseball team and for the Padres Professional Minor League team. Data collection was aimed at improving understanding of pitching performance and injury mechanisms.

- **Research Assistant**

California State University, Bakersfield/Gait and Posture Neuromechanics Laboratory/Human Performance Laboratory, Bakersfield, CA | January 2016 to October 2018

- Collected data under the supervision of Dr. Brian Street from both patient and healthy participants that included younger and older total knee replacement patients using objective measures (such as the Western Ontario and McMaster Universities Osteoarthritis Index, Timed-Up-Go test, Activities-Specific Balance Confidence Scale, Short Form Survey SF-12, and Movement Specific Reinvestment Scale) related to activities of daily living to determine outcome expectations and functional status and GAITRite system to measure gait patterns and spatiotemporal gait asymmetry in correlation with fall risks. Collected data from the lower-limb amputee patient population using the GAITRite system and Timed-Up-Go test to measure gait patterns and spatiotemporal gait asymmetry in correlation with fall risks to assess spatiotemporal gait patterns, functional mobility, and balance confidence among unilateral below knee amputee fallers and non-fallers. Assisted with data collection with total knee replacement patients using video to detect gait abnormalities.
- Performed data collection under the supervision of Dr. Joshua Miller on college students using anthropometric measures (such as waist circumference, height, weight, BMI, and blood pressure) and accelerometers to determine the number of participants at-risk for metabolic syndrome.
- Presented findings at the 2018 Southwest American College of Sports Medicine Annual Regional Chapter Meeting.

- **Student Research Scholar**

California State University, Bakersfield/Human Performance Laboratory, Bakersfield, CA | April 2017 to July 2018

- Conducted "Functional Movement Screen Scores in a Group of Cyclists" study on a group of cyclists to determine functional movement screen scores and injury risk assessment resulting in lower scores during the deep squat and in-line lunge tasks indicating weakness of the posterior chain musculature.
- Drafted IRB application and approved through CSUB IRB committee.
- Presented findings at the 2018 National Strength and Conditioning Association National Conference.

- **Thesis**

Title: Relationship between Ground Reaction Force Impulse and Throwing Arm Joint Kinetics in Collegiate Baseball Pitchers

Point Loma Nazarene University/Master of Science in Kinesiology, 2021

- Conducted a study under faculty advisor Dr. Arnel Aguinaldo to examine the relationship between peak ground reaction forces (GRF) and GRF impulses of the drive and stride leg and their impact on ball speed and joint kinetics in collegiate baseball pitchers.
- Found a significant correlation between medio-lateral impulse at the drive and stride leg and ball speed, supporting the hypothesis that lower extremity stabilization and balance are crucial for effective rotation and enhanced ball speed.

- Concluded that optimizing lower body biomechanics may help improve performance and prevent injuries in baseball pitchers.

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## Professional Experience

- **Physical Therapy Intern Terminal Clinical Experience II**  
Brighton Place Spring Valley, Spring Valley, CA | January 13, 2025 to Present
  - Deliver patient-centered care to a predominantly geriatric population with deconditioning, functional decline, and comorbidities such as cardiovascular, musculoskeletal, and neurological conditions.
  - Implement therapeutic interventions including gait training, transfer training, and functional mobility tasks to restore functional capacity and prevent falls.
  - Collaborate with interdisciplinary teams, including nurses and occupational therapists to coordinate care and optimize patient outcomes.
  - Maintain detailed documentation using Net Health and Point Click Care.
- **Physical Therapy Intern Terminal Clinical Experience I**  
G&G Physical Therapy, Bakersfield, CA | September 9, 2024 to December 5, 2024
  - Provided evidence-based care for a diverse patient population with orthopedic, neurological, vestibular, and post-surgical conditions, including but not limited to TBI, vestibular dysfunction, cervical/lumbar radiculopathy, shoulder and knee replacements, and various musculoskeletal disorders.
  - Analyzed functional limitations to develop evidence-based intervention strategies. Designed individualized treatment plans focusing on pain management, functional mobility, and long-term rehabilitation for conditions such as adhesive capsulitis, spinal stenosis, sacroiliac joint dysfunction, and plantar fasciopathy.
  - Conducted post-surgical rehabilitation for patients recovering from procedures such as shoulder arthroscopy, reverse total shoulder replacement, total hip/knee replacements, and total ankle replacement.
  - Educated patients on home exercise programs, injury prevention, and lifestyle modifications to enhance long-term independence and quality of life.
  - Maintained detailed documentation using A2C.
- **Physical Therapy Intern Integrated Clinical Experience**  
Concentra Physical Therapy, Bakersfield, CA | March 6, 2024 to April 16, 2024
  - Delivered patient-centered care for individuals recovering from workplace injuries, focusing on restoring function and safe return to work.
  - Conducted comprehensive evaluations, including range of motion (ROM), strength, and functional capacity assessments, to identify impairments and develop targeted treatment plans.
  - Designed and implemented work-specific training programs, emphasizing functional task simulation and ergonomic education to reduce re-injury risk.
  - Maintained detailed documentation using Allscripts.

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## Clinical Observation and Volunteer Experience

- **Volunteer – Motor Madness 2026**  
January 2026 – April 2026
  - Delivered an 8-week group-based exercise session for children with developmental concerns including autism, ADHD, obesity, dyslexia, sensory processing disorder, developmental coordination disorder and/or poor balance as part of an IRB-approved research study.
  - Administered pre and post participation developmental assessments, including the Bruninks-Oseretsky Test of Motor Proficiency, Second Edition (BOT-2).

- Implemented and progressed therapeutic activities targeting core strength, upper extremity strength, balance, coordination, running agility, and participation in group play.
  - Collaborated with DPT students to plan, modify, and progress activities based on each child's needs and performance.
  - **Volunteer Observer – Various Physical Therapy Settings**  
January 2016 – February 2024
    - Provided volunteer rehabilitation and translation services as part of an interdisciplinary team, collaborating with occupational and speech therapists to support underserved children with disabilities in Tijuana, Mexico.
    - Gained exposure to neurological rehabilitation by observing treatments for patients with stroke, traumatic brain injuries, and spinal cord injuries in outpatient and inpatient settings.
    - Observed pediatric physical therapy sessions focused on developmental delays, motor skill training, and adaptive equipment use.
    - Assisted with and observed treatment plans in home health settings, including functional mobility training and fall prevention strategies.
    - Shadowed therapists in inpatient acute care, learning about early mobilization protocols, discharge planning, and interdisciplinary collaboration.
    - Witnessed application of evidence-based interventions across diverse patient populations, enhancing understanding of the continuum of care in physical therapy.
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### **Publications and Presentations**

- "Functional Movement Screen Scores in a Group of Cyclists." Presented at National Strength and Conditioning Association National Conference, Indianapolis, Indiana, 2018.
    - Description: This study utilized the Functional Movement Screen to assess injury risk in cyclists, focusing on limited range of motion, poor mobility, and stability deficits. Findings provided a foundation for injury prevention strategies tailored to the cycling population.
  - "Total Knee Replacement Surgery Patient Outcome Expectations." Presented at Southwest American College of Sports Medicine Annual Regional Chapter Meeting, Costa Mesa, CA, 2018.
    - Description: Investigated the relationship between total knee replacement (TKR) patient outcome expectations, fall history, and fall risk. Findings emphasized the importance of tailoring post-TKR rehabilitation protocols to address individual fall risks and mitigate future falls.
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### **Skills**

- Research Tools: Theia Markerless Motion Capture software, Cortex Motion Capture software, GAITRite software, SPSS.
  - Clinical Techniques: Orthopedic Special Tests, Manual Therapy, Therapeutic Exercise Prescription, Neurodynamic Testing, Gait Assessment, Postural Assessment and Correction.
  - Communication: Experience in patient education, peer collaboration among interdisciplinary health professions, and public speaking at professional conferences.
  - Languages: Fluent in Spanish.
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## **Awards and Honors**

- Health Careers Opportunity Program, Marquette University, 2018
    - Awarded for demonstrating commitment to addressing health disparities and promoting diversity in healthcare professions. Participated in science enrichment programs and explored career pathways in physical therapy.
  - Student Research Scholars, California State University Bakersfield, 2017-2018
    - Awarded funding to conduct and complete research project "Functional Movement Screen Scores in a Group of Cyclists." with faculty advisor, Dr. Joshua Miller.
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## **Professional Memberships**

- American Physical Therapy Association (APTA) | Member since 2022
- American College of Sports Medicine (ACSM) | 2017-2018
- National Strength and Conditioning Association (NSCA) | 2017-2018

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**References**

Available upon request.