

Emily Ann Chavez
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EDUCATION

- 2020-Present Interdisciplinary Health Sciences Ph.D. Program
University of Texas at El Paso El Paso, TX 79968
Topic: Examination of successful aging using the SOC theory and biomechanics gait strategy analysis
Expected Graduation: August 2024
GPA: 3.68
- 2018-2020 M.S., University of Texas at El Paso, Department of Kinesiology
500 W. University Ave, El Paso, TX, 79968
Thesis Title: The Influence of Over-Ground Versus Treadmill Walking on Gait Mechanics in Children with Autism Spectrum Disorder
Graduation: July 2020
GPA: 3.40
- 2014-2018 B.S., University of Texas at El Paso, Department of Kinesiology
500 W. University Ave, El Paso, TX, 79968
Degree: *Bachelor of Science (B.S.) in Exercise Science; Minor in Biology*
Graduation: May 2018
GPA: 3.42

RESEARCH EXPERIENCE

- 2022-present Examining successful aging using the SOC model and gait analysis during dual task walking in children, young, middle, and older adults.
- Retention of whole-body vibration training effects on ambulatory function in individuals with Cerebral Palsy
- A comparison of spatial-temporal gait variability in over-ground and treadmill walking in children with autism
- 2020 Dual-task walking does not alter lower extremity movement strategies or increase tripping risk in healthy, young adults
- Treadmill Walking Does not Elicit Increased Tripping Risks in Children with Autism

Project Title: The effect of Hippotherapy on gait, postural control, and emotional well-being in children with Autism Spectrum Disorder: A Pilot Study

Investigators: Jeffrey D. Eggleston, Patrick A. Cereceres, Alyssa N. Olivas, **Emily A. Chavez**.

Amount Requested: \$1950

Status: Not Funded

2019

University of Texas at El Paso – El Paso, Texas

Graduate Student Research Expo – Poster Presentation

Title: Walking While Working: The Effect of Walking Workstation Use on Tripping Kinematics

Graduate Student Research EXPO 2019 **Poster Presentation Third Place Award**

2018

Dodson Research Grant, UTEP Graduate School, University of Texas at El Paso

Project Title: The influence of overground versus treadmill-based walking on gait mechanics in children with Autism Spectrum Disorder

Investigator(s): **Emily A. Chavez**, Jeffrey D. Eggleston, PhD

Role: Student

Amount Awarded: \$2,430

PROFESSIONAL AFFILIATIONS

2018-Present American Society of Biomechanics, Member

PUBLICATIONS

Published, Accepted, In Print

Saucedo, F., **Chavez, E.A.**, Vanderhoof, H.R., Eggleston, J.D. (2021). Effects of controlled

whole body vibration training on functional performance among healthy older adults: A

6-week pilot study. *Journal of Aging Research & Lifestyle (JARLife)*, 10, 39-44.

doi:[10.14283/jarlife.2021.7](https://doi.org/10.14283/jarlife.2021.7).

Eggleston, J.D., Olivas, A.N., Vanderhoof, H.R., **Chavez, E.A.**, Alvarado, C., Boyle, J.B.

(2021). Children with Autism exhibit more individualized responses to live animation

biofeedback than do typically developing children. *Perceptual & Motor Skills*, 128(3),

1037-1058. PMID: 33663275. doi: [10.1177/0031512521998280](https://doi.org/10.1177/0031512521998280).

Eggleston, J. D., Harry, J. R., Cereceres, P. A., Olivas, A. N., **Chavez, E. A.**, Boyle, J. B., & Dufek, J. S. (2020). Lesser magnitudes of lower extremity variability during terminal swing characterizes walking patterns in children with autism. *Clinical Biomechanics*, 76C. PMID: 32408. doi:[10.1016/j.clinbiomech.2020.105031](https://doi.org/10.1016/j.clinbiomech.2020.105031).

Eggleston, J.D., **Chavez, E.A.**, Harry, J.R., & Dufek, J.S. (2019). Computer interactions during walking workstation use moderately affects spatial-temporal gait characteristics. *Gait & Posture*, 74, 200-204. PMID: 31557663. doi: [10.1016/j.gaitpost.2019.09.011](https://doi.org/10.1016/j.gaitpost.2019.09.011).

Submitted/In Review

Olivas, A. N., **Chavez, E. A.**, Eggleston, J.D. (In review). Weighted vest loads do not elicit changes in spatial-temporal gait parameters in children with Autism. Target Journal: *Journal of Applied Biomechanics*.

Chavez, E.A., Olivas, A.N., Vanderhoof, H.R., Eggleston, J.D. (In Preparation). Walking workstation-use allows for safe dual-tasking through unaltered toe clearance magnitudes and kinematic movement strategies. Target Journal: *Applied Ergonomics*.

Saucedo, F., **Chavez, E.A.**, Vanderhoof, H.R., Harry, J.R., Eggleston, J.D. (In preparation). Six weeks of whole-body vibration does not improve fall outcomes during treadmill walking in older adults. Target Journal: Human Movement Science.

INVITED LECTURES

2019 Concepts of Biomechanical Analysis and Functionality of Lower Extremity Performance. Presented in KIN 5361 - Biomechanical Basis of Sport, University of Texas at El Paso, Texas

PRESENTATIONS

Internal

2019 **Chavez, E.A.**, Vanderhoof, H.R., Sanchez, C.N. Harry, J.R., Dufek, J.S.,

Eggleston, J.D. Walking while working: The effect of walking workstation-use on tripping kinematics. UTEP Graduate School Research Expo, El Paso, TX

Award: Third Place Poster Presentation

Quintero, P., Orozco, M., **Chavez, E.A.**, Vanderhoof, H.R., Sanchez, C.N., Harry, J.R., Dufek, J.S., Eggleston, J.D. Making money while walking; walking workstations make it possible. UTEP Graduate School Research Expo, El Paso, TX

External

2021

Chavez, E. A., Olivas, A. N., Eggleston, J. D., (2021). Gait variability during treadmill walking in children with Autism Spectrum Disorder. American Society of Biomechanics Annual Conference, *Virtual Conference*

Olivas, A. N., **Chavez, E. A.**, Eggleston, J. D., (2021). Super Newtonian strategies adopted by children with Autism Spectrum Disorder. American Society of Biomechanics Annual Conference, *Virtual Conference*

Olivas, A. N., **Chavez, E. A.**, Eggleston, J. D. (2021). Load accommodation strategies in children with Autism. UMOVE Research Symposium, *Virtual Conference*

2020

Chavez, E.A., Olivas, A. N., Cereceres, P. A., Quintero, Q., Eggleston, J.D. Treadmill walking does not elicit increased tripping risks in children with Autism. American Society of Biomechanics Annual Conference, *Virtual Conference*

Eggleston, J. D., Olivas, A. N., **Chavez, E. A.**, Vanderhoof, H.R., Boyle, J. B., Alvarado, C. Live animation biofeedback responses between children with Autism and children with typical development. American Society of Biomechanics Annual Conference, *Virtual Conference*

Olivas, A. N., **Chavez, E. A.**, Eggleston, J. D. Responses to Incremental Loads in a weighted vest in children with Autism Spectrum Disorder. American Society of Biomechanics Annual Conference, *Virtual Conference*

2019

Chavez, E.A., Vanderhoof, H.R., Sanchez, C.N. Harry, J.R., Dufek, J.S., Eggleston, J.D. Walking while working: The effect of walking workstation-use on tripping kinematics. International Society of Biomechanics Annual Meeting, Calgary, CN

Eggleston, J.D., Harry, J.R., **Chavez, E.A.**, Cereceres, P.A., Vanderhoof, H.R., Olivas, A.N., Dufek, J.S. Coordination variability and autism: A potential descriptor for movement impairment. International Society of Biomechanics Annual Meeting, Calgary, CN

Olivas, A.N., **Chavez, E.A.**, Harry, J.R., Dufek, J.S. Eggleston, J.D. Weighted vest effects on stride parameter variability in children with autism spectrum disorder. International Society of Biomechanics Annual Meeting, Calgary, CN

Quintero, P., Orozco, M., **Chavez, E.A.**, Vanderhoof, H.R., Sanchez, C.N., Harry, J.R., Dufek, J.S., Eggleston, J.D. Earning money while walking; walking workstations make it possible. International Society of Biomechanics Annual Meeting, Calgary, CN

PROFESSIONAL DEVELOPMENT

- 2021 What Can I Do With My PhD: Career Webinar - Jennifer Polk, PhD
- How To Get Clear On Your Career Path So You Can Confidently Market Yourself For Jobs You Actually Want: Career Webinar - Jennifer Polk, PhD
- Virtual Human Movement Variability and Great Plains Biomechanics Joint Conferences
- American College of Sports Medicine (ACSM) Biomechanics Interest Group (BIG) Advice Panel: [Academia vs. Industry Discussion](#)
- Human and Animal Movement: Where Does Stereotypy End and Variability Start?; Emory College; Theory of Modeling of Living Systems; [TMLS Virtual Workshop Series](#)
- 2020 5th Human Variability Conference & 1st Great Plains Biomechanics Conference, *Virtual Conference*

COMMUNITY INVOLVEMENT

- 2022 Autism Society, 14th Annual *Virtual* Run/Walk for Autism Awareness
- 2021 Talaria Research Mentorship Program 2021; ATHENA by WiSTEM
- Mini Miners College Fun Day, Virtual Event
- Autism Society, 13th Annual *Virtual* Run/Walk for Autism Awareness
- 2020 Int'l Women in Biomechanics - member
- Latinx in Biomechanix - member

2019

American Society of Biomechanics, National Biomechanics Day Annual Event, University of Texas at El Paso

Autism Society, 10th Annual Run/Walk for Autism Awareness, El Paso Community College Valle Verde Campus, El Paso, Texas

El Paso Bridges Academy, Annual Christmas Fair, El Paso, Texas

REFERENCES

Available upon request.