Nicholas Williams

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EDUCATION

M.P.H.   Biostatistics, Columbia University, 2019

B.A.   Psychology, University of Colorado at Boulder, 2017

PROFESSIONAL EXPERIENCE

2019–   Weill Cornell Medical College
           Research Biostatistician I, Division of Biostatistics
           Department of Population Health Sciences

2018   Mailman School of Public Health
           Research Assistant, Department of Biostatistics
           Supervisor: Christine Mauro, Ph.D.

RESEARCH INTERESTS

Nonparametric causal inference methodology for stochastic treatment policies.

Open source statistical software development with a focus on the user experience of the applied statistician.

PUBLICATIONS

Research in Statistics

2020   Díaz, I., **Williams, N.**, Hoffman, K. and Schenck, E. "Non-parametric causal effects based on longitudinal modified treatment policies." *arXiv* preprint: 2006.01366v2

Applied Health Sciences

2020   Thiesmeyer, J.W., Ullmann, T.M., Greenberg, J., **Williams, N.T.**, Limberg, J., Stefanova, D., Beninato, T., Finnerty, B.M., Vignaud, T., Leclerc, J., Fahey III, T.J., Mirallie, E.M., Brunaud, L. and Zarnegar, R.."Hypertension resolution after adrenalectomy for primary hyperaldosteronism: Which is the best predictive model?" *Surgery*. DOI: 10.1016/j.surg.2020.04.017

2020   Riley, C.A., Zheng, Z., **Williams, N.**, Smith, T.L., Orlandi, R.R. and Tabaee, A. "Concordance of self-reported practice patterns of American Rhinologic Society members with the International Consensus Statement of Allergy and Rhinology: Rhinosinusitis" *International Forum of Allergy and Rhinology*. DOI: 10.1002/alr.22533

2020   Day, J., Conti, M.S., **Williams, N.**, Ellis, S.J., Deland, J.T. and Cody, E.A. "Contribution of First-Tarsometatarsal Joint Fusion to Deformity Correction in the Treatment of Adult-Acquired Flatfoot Deformity." *Foot and Ankle Orthopaedics*. DOI: 10.1177/2473011420927321

2020   Day, J., Kim, J., Conti, M.S., **Williams, N.**, Deland, J.T. and Ellis, S.J. "Outcomes of Idiopathic Flexible Flatfoot Deformity Reconstruction in the Young Patient." *Foot and Ankle Orthopaedics*. DOI: 10.1177/2473011420937985

2019   Hussain, I., Winston, G.M., Goldberg, J., Curri, C., **Williams, N.**, Chazen, J.L., Greenfield, J.P. and Baaj, A.A. "Impact of imaging modality, age, and gender on craniocervical junction angles in adults without structural pathology." *Journal of Craniovertebral Junction and Spine*. PMID: 32089618

Manuscripts under review

2020   **Williams, N.** and Díaz, I. "lmtp: An R Package for Machine Learning and Non-Parametric Causal Effects for Longitudinal Studies." Under review at *Journal of Statistical Software*.

Manuscripts in Preparation

2020   Day, J., Chrea, B., and **Williams, N.** "Fixation versus Non-Fixation of Posterior Malleolus Fractures." Target: *Foot and Ankle International*, Fall 2020.

2020   Goel, A.R., Bruce, H.A, **Williams, N.** and Alexiades, G. "Long-Term Effects of Hearing Aids on Hearing Ability in Patients with Sensorineural Hearing Loss: A Retrospective Cohort Study." Target: *Journal of the American Academy of Audiology*, Fall 2020.

2020   Mehta, B., Brantner, C., **Williams, N.**, Szymonifka, J., Navarro-Millan, I.Y., Bass, A.R., Russell, L.A., Parks, M.L., Figgie, M.P., Nguyen, J.T., Ibrahim, S. and Goodman, S.M. "Primary Care Provider Density and Elective Total Joint Replacement Outcomes." Target: *Journal of Arthroplasty*, Fall 2020.

INVITED TALKS

2020   "R Packages." Guest Lecture for Data Science I, Biostatistics and Data Science Program, Weill Cornell Medicine. New York, NY. October 14.

2020   "An Introduction to Answering Causal Questions with the lmtp R package." Weill Cornell Biostatistics Computing Club. New York, NY. July 14.

SOFTWARE

Maintainer

lmtp   R: Non-Parametric Causal Effects of Feasible Interventions Based on Modified Treatment Policies

cabinets   R: Project Specific Workspace Organization Templates

catfun   R: Categorical Data Analysis

Contributer

broom   R: Convert Statistical Objects into Tidy Tibbles

CONFERENCE ACTIVITY

Conference Presentations

Presenting author *italicized*.

2020   ***Williams, N.,*** Savenkov, O. and Chrea, B. "Estimating the Causal Effect of Surgical Treatment for Posterior Malleolus Fracture with Different Treatment Rules on Patient Reported Outcomes." Joint Statistical Meetings (Virtual), Philadelphia, PA.

2019   *Mauro, C.,* **Williams, N.** and An, A. "Experiences with Incorporating R into a Second-Level Biostatistics Course for MPH Students." Joint Statistical Meetings, Denver, CO.

GRANTS AND AWARDS

Awards and Honors

2017   Graduate with Distinction, University of Colorado at Boulder

Grants and Fellowships

2015   Virginia Summer Undergraduate Research Initiative. Project: "The relationship between cognitively oriented verbs and affect."

TEACHING EXPERIENCE

Weill Cornell Medicine

Data Science I
(Teaching Assistant)

Columbia University

Categorical Data Analysis
(Lead Teaching Assistant)

Research Methods, Quantitative Foundations
(Teaching Assistant)

PROFESSIONAL AFFILIATIONS

2020–   American Statistical Association

TECHNICAL SKILLS

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R        expert
SAS
SQL
LaTeX
Julia    novice
C++      novice
Ruby     novice
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Updated October 2020