Charlotte Fowler

722 W 168th Street, 6th floor
New York, NY 10032
crf2147@cumc.columbia.edu
www.charlottefowler.com

Date of Preparation

February 1st, 2024

Education

08/2019 – 05/2024 (Expected)	Columbia University, New York NY PhD in Biostatistics MPhil in Biostatistics, August 2022 Dissertation title*:* Causal inference and time series methods for N-of-1 mobile health studies with missing data Advisor: Linda Valeri
08/2015 – 05/2020	Macalester College, St. Paul, MN B.A. in Applied Mathematics and Statistics, May 2020 Summa Cum Laude; Phi Beta Kappa Member Concentration in Community and Global Health Minor in Latin American Studies

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Experience

04/2020 – Present	Graduate Research Assistant Columbia University Department of Biostatistics Advisor: Linda Valeri Research Topics: Mobile health, causal inference, missing data, mental health, time series analysis Collaborations with McLean Institute for Technology in Psychiatry and OPAL Center
Summer 2018	Research Experience for Undergraduates (REU) Dordt University, Sioux Center, IA Advisor: Dr. Nathan Tintle Research Topics: Mental health in Ukraine, adverse childhood experiences

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Academic Service

2020 – Present	Club Organizer, Columbia University Biostatistics Computing Club
2020 – Present	Club Organizer and Founding member, Columbia Statistics in the Community (STATCOM)
05/2023	Session Chair, Columbia Biostatistics Practicum Symposium
05/2022	Session Chair, Columbia Biostatistics Practicum Symposium

Professional Organizations and Societies

Memberships

03/2022 – Present	American Statistical Association
02/2023 – Present	Eastern North American Region (ENAR) of the International Biometrics Society

Journal Referee

Biostatistics

Educational Contributions

Direct Teaching

Biostatistics Epidemiology Summer Training Diversity Program (BEST)

Summer 2023	Introduction to Introduction to Biostatistics (13 enrolled students)
Summer 2022	Introduction to Introduction to Biostatistics (15 enrolled students)

Teaching Assistant

Department of Biostatistics, Columbia University

Spring 2022	Topics in Advanced Statistical Computing
Fall 2022	Probability (Lead TA)
Spring 2021	Latent Variable and Structural Equation Modeling
Fall 2021	Probability (Lead TA)
Spring 2020	Introduction to Health Data Science

Columbia Summer Research Institute Biostatistics and Epidemiology

Summer 2020	Introduction to Biostatistics and Introduction to Epidemiology

Preceptor

Department of Mathematics, Statistics, and Computer Science, Macalester College

Fall 2017	Introduction to Statistical Modeling
Fall 2018	Introduction to Epidemiology
Spring 2019	Introduction to Epidemiology

Publications

Peer Reviewed Publications

1. **Fowler, C**., Cai, X., Baker J.T., Onnela, J.P., & Valeri, L. (2024, *in press*). Testing unit root non-stationarity in the presence of missing data in univariate time series of mobile health studies. *Journal of the Royal Statistical Society: Series C*
2. Pitts, A. J., & **Fowler, C. R.** (2024). Comparison of open-source software for producing directed acyclic graphs. *Journal of Causal Inference.*
3. Rogers, R. T., Rogers, R., DeSilva, N., **Fowler, C. R.**, & Marino, L. (2023). Prevalence of tobacco smoking among U.S. residents with primary psychosis: A systematic review of national and regional samples. *Current Psychology*.
4. Mosinger, E., Thaler, K., Paz Garcia, D., & **Fowler, C.** (2022). Civil Resistance in the Shadow of the Revolution: Historical Framing in Nicaragua's Sudden Uprising. *Comparative Politics*, 54.1.
5. **Fowler, C.,** Homandberg, L., Steele, C., Bolt, M.A., Tintle, N., Ulrich, R., & Christians, M. (2020). Adult correlates of adverse childhood experiences in Ukraine. *Child Abuse & Neglect*, 107.

Manuscripts in Preparation

1. **Fowler, C.R.**, Cai, X., Baker J.T., Ongur, D., Onnela, J.P., & Valeri, L. (2023). Accounting for effect modification by latent disease state for individual causal effect estimation among bipolar participants in mobile health studies.
2. Kimhy, D., **Fowler, C.R.**, Valeri, L., Rogers, R.S., Xu, X., Buchsbaum, R., Stefancic, A., Cabassa, L.J., Nossell, I., & Stroup T.S. (2023) First Episode Psychosis Digital Monitoring: Feasibility, Compliance, and Response Variability.
3. Kimhy, D., **Fowler, C.R.**, Valeri, L., Rogers, T.S., Xu, X., Buchsbaum, R., Stefancic, A., Cabassa, L.J., Nossell, I., & Stroup T.S. (2023) Real-Time Medication Side Effects in Individuals with First Episode Psychosis: Daily Course, Variance, Impact on Functioning, and Comparison to Retrospective Ratings.

Presentations

Invited Talks

1. "Individual causal effect estimation accounting for latent disease state in bipolar disorder smartphone studies," Computational and Methodological Statistics, Berlin, Germany (12/2023)
2. "Accounting for effect modification by latent disease state for individual causal effect estimation among bipolar participants in mobile health studies," Columbia Biostatistics Annual Research Symposium, New York, NY (09/2023)

Contributed Talks

1. "Accounting for effect modification by latent disease state for individual causal effect estimation among bipolar participants in mobile health studies," Joint Statistical Meetings, Toronto, Canada (08/2023)

2. "Testing unit root non-stationarity in the presence of missing data in univariate time series of mobile health studies," Eastern North American Region, Nashville, TN (03/2023)
3. "Testing unit root non-stationarity in the presence of missing data in univariate time series of mobile health studies," Joint Statistical Meetings, Washington, D.C. (08/2022)

Posters

1. "Testing unit root non-stationarity in the presence of missing data in univariate time series of mobile health studies," Tom Ten Have Symposium, Boston, MA (06/2023)
2. "Testing unit root non-stationarity in the presence of missing data in univariate time series of mobile health studies," American Causal Inference Conference, Austin, TX (05/2023)
3. "Ukraine Specific Risk Factors for Intermittent Explosive Disorder (IED)," NSF Research Experience for Undergraduates Symposium, Washington, D.C. (10/2018)

Campus Talks

1. "Software to draw directed acyclic graphs," Causal Inference Learning Group and Computing Club, New York, NY (02/2022)
2. "Testing unit root non-stationarity in the presence of missing data and future works," Functional Neuroimaging & Bioinformatics Lab, virtual (12/2022)
3. "Testing unit root non-stationarity in the presence of missing data in univariate time series of mobile health studies," Causal Inference Learning Group, Mailman School of Public Health, New York, NY (10/2022)