

# Ana Bravo

BIostatistician | Data Scientist I

University of Miami, Miller School of Medicine

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*Specialized in cleaning, modeling, and visualizing data using advanced programming languages such as R, SAS, and STATA.*

## Education

### Florida International University

MPH - Biostatistics

Florida, USA

2023

### Florida International University

BA - Psychology

Florida, USA

2018

### Miami Dade College

AA - Psychology

Florida, USA

2016

## Research Experience

### University of Miami Miller School of Medicine

Department of Public Health

Data Scientist I, Primary Investigator: Mariano Kanamori, Ph.D.

Aug 2023 - Present

- Utilize R for data wrangling, manipulation, cleaning, statistical analysis, and visualizations to extract insight from social network data.
- Develop and deploy custom R scripts and functions to automate data import, summarization, and transformation to streamline processes.
- Skilled in visualizing ego-centric (personal network) data using a variety of different R packages such as egoR, igraph, and SNA to analyze different patterns of communication within a network.
- Skilled in creating dynamic and static reproducible reports using Quarto and Shiny to create informative visualizations to show survey response trends in Likert scale data.
- Utilize ggplot2, ggstatplot, and Plotly to create health-related visualizations on Pre-exposure prophylaxis (PrEP) use among a Latino sample in South Florida.
- Proficient in Tidygraph principles such as adding graphs, edge, and centrality measures to provide tidy API for network manipulation.

### Center for Research on U.S. Latino HIV/AIDS and Drug Abuse

Florida International University

Data Analyst Intern, Primary Supervisors: Weize Wang, MPH and Patria Rojas, Ph.D., MPH, MSW

Dec 2022 - Jun 2023

- Analytical skills and proficiency in SAS, STATA, SQL and R Programming language to analyze longitudinal, repeated measures, and cohort data.
- Performs various data analytics manipulation tools such as cleaning, transforming, pivoting and visualizing data for optimal data use.
- Performed statistical analysis using a variety of statistical models such as parametric, non-parametric hypothesis testing, linear regression, logistic regression, survival analysis, and longitudinal data modeling using GEE and mixed effects model methods.
- Experienced in cleaning and merging big data using pivoting techniques in R, SAS, and SQL.
- Skilled in using a wide variety of data analytical methodologies to address issues such as data missingness and trouble shooting technical difficulties.
- Interpreted data analysis results to investigators with and without statistical subject matter knowledge

### Substance Use Neuropsychology Lab

Florida International University

Senior Research Assistant, Primary Investigator: Raul Gonzalez, Ph.D.

Feb 2020 - Jul 2023

- Conduct assessment for the longitudinal Adolescent Brain Cognitive Development (ABCD) Study under the direct supervision of Dr. Raul Gonzalez.
- Administer clinical interviews (e.g., KSADS, PPS, Substance use questionnaires, Alcohol, Nicotine and Marijuana TLFB measurements to school aged children for a ten-year longitudinal study.
- Administer and score neuropsychological and neuro-behavioral tasks (RAVL-T, NIH Tool Box, Emotional Stroop Task) with ABCD participants.
- Conduct suicide-risk assessment under the supervision of an onsite clinician during protocol visits and conduct suicidality follow up with parents.
- Conduct Time Line Follow Back Interview (TLFB) to obtain youth estimates of past year marijuana, cigarette and other substance use.
- Collection of different biological specimen samples from a variety of different domains such as hair, urine, saliva, blood, DNA saliva sample, and Dräger breathalyzer.

## Child Anxiety and Phobia Program

Florida International University

RESEARCH ASSISTANT, PRIMARY INVESTIGATOR: JEREMY PETTIT, PH.D.

Apr 2017 - Feb 2020

- Assisted during the administration of evidence based assessment e.g., exposure therapy and treatment to children and adolescents with anxiety and depression threshold and sub-threshold disorders.
- Organization of clinical case files for youth and adolescents that come into phobia center for anxiety and depression treatment.
- Conduct intake phone interviews on potential participants to determine treatment plan for anxiety and depressive disorders (GAD, MDD, SAD etc.)
- Assisted in the completion of psychosocial questionnaires during clinical interview as well as administer computer based tasks such as Flanket test for executive functions.
- Participated in data capture for diagnostic code of children and parents with anxiety disorder that meet criteria for DSM-5 related disorders for different time points (pre, post, and follow-up.)
- Assist, recruit, and schedule participants for incoming projects such as Attention Training (AT-RCT) for social anxiety study that included EEG assessment for participants.

## Assess Behavior, Cognition, and Emotion Regulation in Children and Adolescents Lab

Florida International University

RESEARCH ASSISTANT, PRIMARY INVESTIGATOR: ERICA D. MUSSER, PH.D.

May 2017 - May 2019

- Participate in FIU's Summer Treatment Program (STP) in collaboration with ABCDERICA Lab to collect physiological data (e.g., heart rate electrodermal activity) from school ages children with ADHD and comorbid disorders.
- Set up Mindware/BioLab electrodes on youth during assessment of ADHD and Emo meds protocol
- Run and conduct ADHD protocol task such as: resting baseline, neutral picture assessment, COIN, BARTLG to compare control vs. ADHD diagnosis group.
- Perform video transcripts of youth during Emotional and Parenting in Childhood (EPIC) Study conducted by Rachel Tenenbaum, Doctoral student.
- Conduct data cleaning procedures on heart rate variability (HRV) cardiac impedance (IMP) and electrodermal activity (EDA) measurements on Mindware software using participant data.

## Professional Experience

### Lab Instructor

Miami Dade College

MATHEMATICS DEPARTMENT

Feb 2019 - Oct 2020

- Serve as a role model to motivate students to achieve their academic needs.
  - Advisement service.
  - SMART Plan creation.
  - Advising appointments.
  - Meeting with students on repeated attempts.
  - Assist with enrollment.
  - Create, review, and modify student academic progress (MAP) for newly enrolled, transfer and transient students.
  - Assist students with academic planners such as major changes and pre-requisite requirements.
  - Participate in recruitment services such as orientation for First time in College (FTIC) students
  - Advice and guide students who were on academic probation to implement alternative courses of action to achieve graduation.

### Mathematics Tutor

Miami Dade College

MATHEMATICS DEPARTMENT

Oct 2016 - Jan 2019

- Provide homework help, assist in the creation of study plans, and develop an in-depth knowledge in College Mathematics.
  - Attend instructor meetings or requires yearly training for online courses.
  - Grade and score day one diagnostics exam to identify students current mathematics background
  - Help in the Navigation of online modalities for students such as ALEKS, myMathLab, and BlackBoard
  - Create study plan for students identified as at risk based on students day one diagnostics exam.
  - Monitor online BlackBoard Retention Center and communicate weekly with professor.
  - Conduct Mastery sessions (e.g., review sessions) during tutoring service hours in preparation for exam week.

## Language Skills

<b>Software</b>	Microsoft Office, SPSS
<b>Programming Languages</b>	R, SAS, STATA, Python, Julia
<b>Reproducible Report</b>	Shiny, Quarto, Markdown/Rmarkdown, LaTeX
<b>Project Management</b>	REDCap
<b>Version Control</b>	Git, GitHub
<b>Web Development</b>	HTML, CSS, GitHub Pages
<b>Languages</b>	Spanish, English
<b>Operating Systems</b>	Windows, MacOS, Linux

## Presentations

1. Bravo, A. (2024). *Interpreting data in public health*. Florida International University, Robert Stempel College of Public Health; Social Work; PHC 6930C - Intergrative Seminar in Public Health.
2. Rodriguez, E., Bravo, A., Skvoretz, J., Cracker, L., & Kanamori, M. (2024). *Exploring PrEP stigma homophily and PrEP discussions in latino men who have sex with men in south florida*. University of Miami, Miller School of Medicine; Sunbelt 2024.
3. Cracker, L., Bravo, A., Rodriguez, E., Fallen, S., & Kanamori, M. (2024). *Examination of PrEP use disclosure among latino men who have sex with men: Implications for future social network interventions to address HIV-related disparities*. University of Miami, Miller School of Medicine; Sunbelt 2024.
4. Bravo, A. (2024). *Social network analysis: Data collection instruments for egocentric networks*. University of Miami Miller School of Medicine. [anbrav0.github.io/teaching/](https://anbrav0.github.io/teaching/)
5. Bravo, A., Wang, W., Colon-Burgos, J., Gomez-Estern, B., Behar-Zusman, V., & Rojas, P. (2023). *Examining sociocultural factors of hispanic stress: A community based remote study among latino adolescents in south florida*. Florida International University, University of Miami; American Public Health Association 2023 Annual Meeting and Expo.
6. Rojas, P., Wang, W., Novoa, O., Colon-Burgos, J., Ravelo, G. J., Sanchez, M., Cano, M. A., Khalona, M., Bravo, A., De La Rosa, M., & Behar-Zusman, V. (2023). *A remote intervention on HIV and substance use during the COVID-19 pandemic: A community based participatory randomized clinical trial targetting adult latino men in south florida*. Florida International University, University of Miami; American Public Health Association 2023 Annual Meeting and Expo.
7. Bravo, A. (2023). *Interpreting data for public health research, policy, or practice*. Florida International University, Robert Stempel College of Public Health; Social Work; PHC 6930C - Intergrative Seminar in Public Health.

## Leadership, Service & Community Engagement

### Advisor, Board of Directors: PLUMY

Miami-Dade County

PROTECTING LGBTQ+ UNDERSERVED MIAMI-DADE YOUTH

Apr 2023 - Apr 2025

- Director
  - Board of Directors in nonprofit 501(c)(3) organization tasked to provide resources across Miami-Dade County for unserved LGBT+ youth.
  - Assist in diversity, equity, and inclusion (DEI) informed decision making for non-profit goals.

### Rentetion Data Core - ABCD Student Rention Workgroup

ABCD Study Consortium

ABCD STUDY

Apr 2023 - Apr 2024

- Retention Core Member
  - Assist in the creation of retention efforts ABCD model for at risk participants.
  - Create, clean, and model passive withdraw participatants as well as identify participants at risk of study withdrawl.

### Dean Student Advisory Biostatistics Respresentative

Office of Student and Alumni Affairs

ROBERT STEMPEL COLLEGE OF PUBLIC HEALTH AND SOCIAL WORK

Aug 2022 - Aug 2023

- Advisor Council Board Memeber
  - Biostatistics Department representative, make recommendation for improvement of departmental needs.
  - Provide knoweldge for key decision making in Biostatistics department.

### Data Science Conference 2022

FIU Kovens Conference Center

DSC US HEALTH 22

Oct 2022 - Oct 2022

- Data Science Conference Logistics Volunteer
  - Assist with logist front desk task such as check in, organization of materials.
  - Advise DSC attendees location of important events.

### ABCD Study Substance Use Workgroup Member

ABCD Consortium

ABCD STUDY

Jun 2021 - Apr 2023

- Senior Research Assistant
  - Provide localized insight on the RA groudfloor for the ABCD Study.
  - Provide assistance in reformatting script language for the ABCD Semi-structured TLFB interview.

## Professional Membership

American Public Health Association

MEMBER

2022 - 2024

Florida Public Health Association

MEMBER

2022 - Present

International Network for Social Network Analysis

MEMBER

2024 - Present

Publications

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1. Patria, R., **Bravo, A.**, Wang, W., Colon-Burgos, J.F., Ravelo, G., Castillo, B., Fizer Robinson, M., De La Rosa M., Behar-Zusman, V. (Submitted) Higher Parental Respect is Associated with Lower Acculturation Stress Among Latino Adolescents
2. Yeguez, C.E., **Bravo, A.**, Troya, S., Pettit, J.W., (In preparation). Are Individuals with ADHD at Risk for Suicide? A Systematic Review of Longitudinal Studies.